REGISTRATION REPORT
Part C

Confidential Information

Product code: 102000008958

Active Substance: tebuconazole SC 430 (430 g/L)

Central Zone

Zonal Rapporteur Member State: The Netherlands

CORE ASSESSMENT

Applicant: Bayer CropScience

Applicant date: 03/01/2011

zRMS dRR date:

Zonal RR date:



M-430554-01-1

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REQUEST FOR DATA CONFIDENTIALITY IN ACCORDANCE WITH ARTICLE 14 OF DIRECTIVE 91/414/EC AND ARTICLE 63 OF THE REGULATION (EC) N° 1107/2009

Bayer CropScience hereby requests data confidentiality for all the information listed in the attached document on the basis that this information is regarded as proprietary. This request takes into account the provision of Article 14 of Directive 91/414/EEC and of Council Directive 70/313/EEC of 22 June 1970 or Article 63 of the Regulation (EC) No 1107/2009 on the freedom of access to information.

CONFIDENTIAL DATA RELATING TO THE FORMULATED PRODUCT

This document re□ie□s the confidential studies related to the plant protection product 'Tebuconazole SC 430 (430 g/L)' (Specification □o□10□00000□□5□) □hich contains the acti□e substance tebuconazole included into □nnex □of □irecti□e □1/414 in □ecember □00□(□irecti□e □00□/1□5/□C)□

This dossier is prepared to fulfil the step □re□uirement for tebuconazole□

□ here appropriate this document refers to the conclusions of the □□ re□ie□ of tebuconazole□This □ill be □here□

- the acti□e substance data is relied upon in the ris□assessment of the formulation□or □hen
- the □□ re□ie□ concluded that additional data/information should be considered at national re□ registration□

□ote□this Part □ document only re□ie□s data (□nnex □□and/or □nnex □□□) and additional information that has not pre□iously been considered □ithin the □□ re□ie□ process, as part of the □nnex □inclusion decision□

The product 'Tebuconazole SC 430' has not been e□aluated as the representati□e formulation during the □□ re□ie□ of tebuconazole□

Tebuconazole □as included into □nnex □of □irecti□e □1/414 on 1st September □00□under □nclusion □irecti□e □00□/1□5/□C□The □nnex □□nclusion □irecti□e for tebuconazole pro□ides no specific pro□isions under Part □ □hich need to be considered by the applicant in the preparation of this section and by the □ S prior to granting an authorisation□

□or the implementation of the uniform principles of □nnex □□, the conclusions of the re□ie□ report on the acti□e substance tebuconazole, and in particular □ppendices □and □□thereof, as finalised in the Standing Committee on the □ood Chain and □nimal □ealth on □□ □ctober □00□shall be ta□en into account□The □□S□ Scientific □eport (□00□) 1□□, 1□10□for tebuconazole is considered to pro□ide the rele□ant scientific information or a reference to □here such information can be found for the re□ie□ of the product□

The follo□ing table pro□ides the □□ endpoints used in this e□aluation□

Active Substance	End-Point
	Purity of acti□e substance
Tebuconazole	□ □50 g/□g

IIIA 1 Identity of the Plant Protection Product

IIIA 1.2.1 Manufacturer(s) of the preparation

□ame□

□ddress□

5.1.1.c Woo

Location of the manufacturing site

5.1.1.c Woo

IIIA 1.2.2 Manufacturer(s) of the active substance(s)

□ame□
□ddress□

5.1.1.c Woo

Location of the manufacturing site

5.1.1.c Woo

or

5.1.1.c Woo

IIIA 1.2.3 Statement of purity (and detailed information on impurities) of the active substance(s)

There has not been any change in the manufacturing sites or specifications of the acti□e substance tebuconazole since the entry into force of the □nnex □inclusion □irecti□e in the □ember States on 1st September □00□and the submission of the full data pac□age to the □□S □enmar□in charge of the e□ui□alency report for the compliance chec□Step 1 of the Post □nnex □re□registration process for tebuconazole (compliance chec□deadline□□□ □ebruary □010)□

Therefore no further (confidential) information is submitted on the impurities present in technical grade prothioconazole and tebuconazole□

IIIA 1.4 Detailed Composition of the Preparation

IIIA 1.4.1 Contents of active substance and formulants

The content of the active substance(s) and the formulants is provided in the table below

Table 1 4 1 1 Composition of Tebuconazole SC 430 (430 g/L) specification 10 00000 5 0

chemical name	CAS no	commercial name	function	g/L [1]	
tebuconazole	10 534 3	5.1.1.c Woo (min purity 5 0)	5.1.1.c Woo	buiten reikwijdte verz	buiten reikwijdte [2]
oxirane, methyl , polymer oxirane	003 11	5.1.1.c Woo		buiten reikwijd	buiten reikwijd
residues, petroleum, catalytic reformer fractionator, sulfonated, polymers ith formaldehyde, sodium salts	4 5 4 5			buiten reikw jd	buiten reikw jd
1, ,3 propanetriol	5 1 5			buiten re kwijdte	buiten re kwijdte v
xanthan gum	1113			buiten reikw jdte	buiten reikw jdte
1, benzisothiazol 3( ) one	34 33 5			buiten reikw jdte ve	buiten reikw jdte
polysiloxanes, di e	314			buiten reikwijdte	buiten reikw jdte
ater	3 1 5	5.1.1.c Woo		buiten re kwijdte verzoe	buiten re kwijdte verz

[1] Calculated by using the density 1 1 g/cm (specified density of the formulation 1 100 1 140 g/cm)
[2] ased on the declared alue of pure acti e substance (430 g/L)
[3] alance to 100 or 1 L (11 0 g) respecti ely

The recipe presented abo e for the formulation, 'Tebuconazole 430 (430 g/L)' is from composition statement (3 5 0 1)

Bridging between the tested formulation batches and the formulation supported in this dossier

The composition of the formulation batches used for the physico-chemical, toxicological and ecotoxicological studies available for the product is presented in the bridging statement provided in Appendix 1 of this document.

A comparative assessment of the recipes of the tested formulation batches with the formulation supported in this dossier reveals that:

1. The physical, chemical and technical properties are comparable for both formulations. The modification in the recipe of the registered formulation does not affect the shelf life specification of the product.
2. The changes of composition are not expected to adversely affect the toxicological properties of the product.
3. The ecotoxicological properties of the formulation are driven by the toxicity of the active substance and its content did not change in the formulations, while changes in the formulants, which have a lower toxicity than the active substance, are not expected to have an adverse effect on the ecotoxicological profile of the formulation.

   Furthermore, generally the studies with the parent compound resulted in lower endpoints compared to the formulation and are driving the risk assessment for non-target organisms. Therefore, any minor changes in the frames used in this formulation will not change the outcome of the risk assessments or the classification of the product.

In Table 1.4.1.1 alternative commercial names are notified for some of the formulants (from different suppliers but with identical chemical name) included in the formulation, although only one of them was contained in the batch(es) tested. The equivalence of these alternative formulants has been thoroughly checked with regards to chemical identity, technical and safety properties (comparable toxicological profile according to CLSSs) and reported in separate documents provided in Appendix 1 of this document.

This bridging statement demonstrates that the physico-chemical, toxicological and ecotoxicological data packages available with the tested formulation are valid and can be used for risk assessments and classification/labelling of the formulation Specification number 10 00000 5 0 supported in this dossier.

IIIA 1.4.4 Identity and content of formulants

EO(50%)PO(MW3000)block copolymer div.

□ersion □011□1□□15

5.1.1.c Woo

"The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified above was thoroughly checked with regard to chemical identity, technical properties and safety properties". The evaluation was performed with the data that were available at that time.

Specification □o□□	10□0000004□0
Synonym(s)□	5.1.1.c Woo
Product class□	Propoxylated (P□)□ethoxylated (□□) bloc□polymers
□unction□	5.1.1.c Woo
Composition/purity□	□loc□polymer based on propylene oxide and ethylene oxide
Chemical name□	**Oxirane, 2-methyl-, polymer oxirane** *(CA index name)*
C□S □o□□	**9003-11-6***
□C □o□□	not allocated
□□ □ndex □o□□	not allocated
Structural □ormula□	buiten reikwijdte verzoek x,y□unspecified
□mpirical □ormula□	buiten reikwijdte verzoek
□olar □ass (mean)□	approx□3000 g/mol
□emar□s□	□This C□S number most generally describes the chemical identity of the formulant, according to the generally a□ailable chemical information, according to information in the □S□S or supplier specification□ □thylan 3□4 alternati□e C□S no□□□53□5□10□0 □□ui□alence Statement□□ □40□3□□□01□1

Na-Naphtha.sulph.-form. cond.

□ersion □011□01□□0

5.1.1.c Woo

"The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified above was thoroughly checked with regard to chemical identity, technical properties and safety properties". The evaluation was performed with the data that were available at that time.

Specification □o□□	10□0000004□□
Synonym(s)□	5.1.1.c Woo
Product class□	□aphthalene sulfonates condensed □ith formaldehyde□preparation
□unction□	5.1.1.c Woo
Composition/purity□	Sodium salt of □aphthalene sulfonate condense (□SC) 5.1.1.c Woo Content min sulfonated aromatic polymer, sodium salt (□aphthalenesulfonic acid, sodium salt, polymer □ith formaldehyde) 5.1.1.c Woo Sodium al□yl naphthalene sulfonate formaldehyde condensate
Chemical name□	**Residues, petroleum, catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts** *(CA index name)*
C□S □o□□	**68425-94-5***
□C □o□□	Polymer status
□□ □ndex □o□□	□ot allocated
Structural □ormula□	□nspecified
□mpirical □ormula□	□nspecified
□ olar □ ass (mean)□	□nspecified
□emar□s□	□This C□S number most generally describes the chemical identity of the formulant, according to the generally a□ailable chemical information, according to information in the □ S□S or supplier specification□ □□ui□alence Statement□□ □40□□□□01□1

5.1.1.c Woo

□ersion □011□0□□10

Specification □o□□	10□000001143
Synonym(s)□	□
Product class□	Polyole
□unction□	5.1.1.c Woo
Composition/purity□	5.1.1.c Woo
Chemical name□	1,□3□Propanetriol *(CA index name)*
C□S □o□□	5□□□1□5
□C □o□□	□00□□□□5
□□ □ndex □o□□	□ot allocated
Structural □ormula□	buiten reikwijdte verzoek
□mpirical □ormula□	
□olar □ass (mean)□	□□0□g/mol
□emar□s□	□

Xanthan gum div.

Version 010 03 0

5.1.1.c Woo

"The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified above was thoroughly checked with regard to chemical identity, technical properties and safety properties". The evaluation was performed with the data that were available at that time.

Specification no.	10 000000 0
Synonym(s)	5.1.1.c Woo
Product class	Polysaccharides, hetero, preparation
Function	5.1.1.c Woo
Composition/purity	Blend based on xanthan gum. Xanthan gum is an anionic heteropolysaccharide, produced by fermentation with xanthomonas campestris. The fermentation medium contains a carbohydrate (such as sugar), nitrogen source, trace elements, and other growth factors.
Chemical name	**Xanthan gum** *(CA index name)*
CAS no.	**11138-66-2**
EC no.	234 234
CA index no.	Not allocated
Structural formula	buiten reikwijdte verzoek
Empirical formula	
Molar mass (mean)	1 15 • 10 g/mol
Remarks	Equivalence Statement 3 1 01 1

BIT Aqueous DPG 20%

Version 010 10 15

5.1.1.c Woo

"The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified above was thoroughly checked with regard to chemical identity, technical properties and safety properties". The evaluation was performed with the data that were available at that time.

Specification no	10 0000004 4
Synonym(s)	5.1.1.c Woo
Product class	heterocyclic compounds preparation
Function	5.1.1.c Woo
Composition/purity	aqueous dipropylene glycol solution of approx buiten reikwijdte verzoek benzisothiazol 3( )one as sodium salt

buiten reikwijdte verzoek

Chemical name	**1,2-benzisothiazol-3(2H)-one** *(CA index name)*
CAS no	**2634-33-5**
EC no	0 1 0
Index no	
Structural formula	buiten reikwijdte verzoek
Empirical formula	
Molar mass (mean)	151 g/mol
Remarks	Equivalence Statement 40 313 01 1

Silicone antifoam div.

□ersion □011□11□0□

5.1.1.c Woo

"The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified above was thoroughly checked with regard to chemical identity, technical properties and safety properties". The evaluation was performed with the data that were available at that time.

Specification □o□□	10□000000051
Synonym(s)□	5.1.1.c Woo
Product class□	Polydimethylsiloxane□preparation
□unction□	5.1.1.c Woo
Composition/purity□	□□ueous emulsion of polydimethylsiloxane (buiten reikwijdte verzoek
Chemical name□	**Polysiloxanes, di-Me** *(CA index name)*
C□S □o□□	**63148-62-9***
□C □o□□	Polymer status
□□ □ndex □o□□	□ot allocated
Structural □ormula□	buiten reikwijdte verzoek
□mpirical □ormula□	
□ olar □ ass (mean)□	□
□emar□s□	□This C□S number most generally describes the chemical identity of the formulant, according to the generally a□ailable chemical information, according to information in the □ S□S or supplier specification□ □ ain component only, alternati□e Cas no□00□01□00□□ /Poly[oxy(dimethylsilylene) *(CA index name)* "Poly[oxy(dimethylsilylene)/Polydimethylsiloxane" *[9016-00-6]* is exempted from the re□uirement of a tolerance under 40 C□□ 1□0□□30 □hen used in accordance □ith good agricultural practice as inert (or occasionally acti□e) ingredients in pesticide formulations applied to animals□ List 3□□nerts of un□no□n toxicity□ □□ui□alence statement□□ □3□4□□□01□□

IIIA 1.4.5.2 Discussion of the formation of impurities of toxicological concern

The product 'Tebuconazole SC 430 (430 g/L)' does not contain any rele□ant impurity of toxicological concern□

IIIA 5.2.5 Description of the analytical methods for the determination of formulants

□ ith respect to toxicological, eco□toxicological or en□ironmental aspects the product 'Tebuconazole SC 430 (430 g/L)' does not contain any rele□ant formulants□Therefore, a special analytical method and □alidation is not needed□

IIIA 7.9 Data on Formulants

IIIA 7.9.1 Material safety data sheets

Copies of the □ aterial Safety □ata Sheets (□ S□S) of the co□formulants are included in the □ppendix 3 of this document□

IIIA 7.9.2 Available toxicological data for each formulant

The a□ailable toxicological data for the co□formulants are reported in the □ S□S□The formulants present in Tebuconazole SC 430 □hich are classified indi□idually as hazardous components present at le□els abo□e the appropriate trigger □alues are listed belo□□

Chemical Name	CAS-No. / EC-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Sulphonated aromatic polymer, sodium salt	□4□5□□4□5	□i	□3□/3□	buiten reikwijdte verzoek

The classifications of the co□formulants do not automatically ha□e an impact on the classification of the product□The classification of the product is based on the studies performed (phys□chem, acute toxicology, and eco□toxicology) □ith Tebuconazole SC 430

Appendix 1: Bridging Statements or Confidential Documents

□eport□	□ □□□□ C□1/01, 5.1.2.e Woo □□,□011
Title□	Composition statement □Plant protection product □Tebuconazole SC 430 (430 g/L) □ □olicur 430 SC foliar fungicide
□ocument □o□	□ □3□5□□□0□□1
□uidelines□	□ot rele□ant
□LP	□ot rele□ant

□eport□	□ □□□□ C□1/0□, 5.1.2.e Woo □,□011
Title□	□ridging statement □xplaining the change in the recipe of the product tebuconazole SC 430 (430 g/L) □Confidential
□ocument □o□	□ □4□1□1□01□1
□uidelines□	□ot rele□ant
□LP	□ot rele□ant

□eport□	□ □□□□ C□1/03, 5.1.2.e Woo □□,□011
Title□	Chec□of e□ui□alence for alternati□e formulants □□□(50 percent)P□(□ □ 3000) □loc□copolymer □□xirane, □□methyl□, polymer oxirane
□ocument □o□	□ □40□3□□01□1
□uidelines□	□ot rele□ant
□LP	□ot rele□ant

□eport□	□ □□□□ C□1/04, 5.1.2.e Woo □□,□011
Title□	Chec□of e□ui□alence for alternati□e formulants □□a□□aphthalenesulphonate□ formaldehyde condensate 5.1.1.c Woo
□ocument □o□	□ □40□□□□01□1
□uidelines□	□ot rele□ant
□LP	□ot rele□ant

□eport□	□ □□□□ C□1/05, 5.1.2.e Woo □□,□010
Title□	Chec□of e□ui□alence for alternati□e formulants □□anthan □um di□□
□ocument □o□	□ □3□□1□□01□1
□uidelines□	□ot rele□ant
□LP	□ot rele□ant

□eport□	□ □□□□ C□1/0□, 5.1.2.e Woo □□,□011
Title□	Chec□of e□ui□alence for alternati□e formulants □□T a□ueous □P□ □0 percent □ 1,□benzisothiazol□3(□□)□one□
□ocument □o□	□ □40□313□01□1
□uidelines□	□ot rele□ant
□LP	□ot rele□ant

Report	C 1/0, 5.1.2.e Woo , 010
Title	Check of equivalence for alternative formulants Polysiloxanes, di e
Document No	3 4 01
Guidelines	Not relevant
GLP	Not relevant

Bayer CropScience

Composition Statement

Plant Protection Product

Bayer CropScience AG
Development
Global Regulatory Affairs

5.1.1.c Woo

CONFIDENTIAL
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not for publication

Product Name:	**Tebuconazole SC 430 (430 g/L)**	Specification No.:	102000008958-06
Other Names:	**Folicur 430 SC foliar fungicide**	Material No.:	04832264
Crop Life:	**SC**	Date of Issue:	2011-12-14

To whom it may concern

Please find hereafter the composition of the above mentioned product based on formulation specification, version 2011-12-14.

Identity of active substance:

Tebuconazole	CAS No.:	107534-96-3
	EU Index No.:	603-197-00-7
	ELINCS No.:	403-640-2
	CIPAC No.:	494

Content of pure active substance:

Tebuconazole	430 g/L tebuconazole (declared)
	min. 408.5 g/L max. 451.5 g/L

M-385928-06-1

Composition of the preparation:

The contents of all ingredients are given as % w/w and as g/L according to the company's recipe and formulating instructions.

chemical name	CAS no.	commercial name	function	g/L [1]	%
tebuconazole	107534-96-3	5.1.1.c Woo	active substance	bulten re kwijdte verz	bulten re kwijdte 2)
oxirane, 2-methyl-, polymer oxirane	9003-11-6	5.1.1.c Woo	5.1.1.c Woo	bulten reikw jdte	bulten reikw jdte ver
residues, petroleum, catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts	68425-94-5			bulten reikwijdte	bulten reikwijdte
1,2,3-propanetriol	56-81-5			bulten re kwijdte v	bulten reikwijdte
xanthan gum	11138-66-2			bulten reikwijd	bulten reikw jdte
1,2-benzisothiazol-3(2H)-one	2634-33-5			bulten reikwij	bulten reikw jdte
polysiloxanes, di-Me	63148-62-9			bulten reikwijd	bulten reikw jdte
water	7732-18-5	5.1.1.c Woo		bulten re kwijdte 3)	bulten re kwijdte 3)

[1] Calculated by using the density 1.12 g/cm³ (specified density of the formulation 1.100 - 1.140 g/cm³)
[2] Based on the declared value of pure active substance (430 g/L)
[3] Balance to 100 % or 1 L (1120 g) respectively

5.1.2.e Woo

Date: 2011-12-14 Signature

5.1.2.e Woo

Bayer CropScience

Bridging Statement
Explaining the change in the recipe of the product

Tebuconazole SC 430 (430 g/L)

(Company Code: Spec. No. 102000008958)

Confidential

Test Guideline

None

Author(s)

5.1.2.e Woo

STUDY COMPLETION DATE

2011-12-14

Company

Bayer CropScience

M-421219-01-1

Approvals Page

5.1.2.e Woo

2011-12-14

Bayer CropScience AG

Date

5.1.2.e Woo

5.1.2.e Woo

5.1.2.e Woo

2011-12-14

Bayer CropScience AG

Date

5.1.2.e Woo

5.1.2.e Woo

5.1.2.e Woo

2011-12-14

Bayer CropScience AG

Date

5.1.2.e Woo

5.1.2.e Woo

5.1.2.e Woo

2011-12-14

Dr. Knoell Consult GmbH

Date

5.1.2.e Woo

Confidentiality Statement

This report is confidential. No part of the report or any information contained therein may be disclosed to any third party without the prior written authorisation of Bayer CropScience.

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Introduction and summary

In order to allow more flexibility in production the formulation of the plant protection product Tebuconazole SC 430 (Spec. No. 102000008958, version 2005-12-01), alternative (optional) formulants were introduced to the recipe, resulting in the current formulation of Tebuconazole SC 430 (Spec. No. 102000008958, version 2011-12-14).

This statement compares the compositions of the current and previous formulations and shows that, with regard to physical, chemical and technical properties, the parameters of both formulations are sufficiently comparable. Additionally, the manufacturing process is not affected by the formulation change.

An assessment of the recipes of toxicologically tested formulations (tebuconazole SC 430, Batch Nos. 0033039, 0030156, and 03860/0166 (0078)) and of the current formulation reveals that the available toxicological data package is valid to support the current formulation including its classification and labelling.
An assessment of the recipes of the previous and of the current formulation reveals that the outcome of eco-toxicological risk assessments and classification/labelling should not be changed by the composition change.

In the EU the active substance tebuconazole is classified as Category 3 reproductive toxicant and labelled with R63 (Possible risk of harm to the unborn child). The content of tebuconazole in the current formulation is above the trigger value for classification (5%).
Therefore, the following classification and labelling is proposed for the current formulation tebuconazole SC 430 (430 g/L) (Spec. No. 102000008958, version 2011-12-14)

with regard to toxicological data:	Xn	Harmful
	R63	Possible risk of harm to the unborn child.
with regard to ecotoxicological data:	N	Dangerous for the environment
	R51/53	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment

1. Composition of the plant protection product.

The current composition of the plant protection product Tebuconazole SC 430 (Spec. No. 102000008958, version 2011-12-14) differs from the previous composition in the following ways:

5.1.1.c Woo

Table 1 compares the current and the previous composition of the plant protection product Tebuconazole SC 430 (Spec. No. 102000008958).

Table 1: Composition of the plant protection product Tebuconazole SC 430 (Spec. No. 102000008958, version 2011-12-14) and previously reported composition (Spec. No. 102000008958, version 2005-12-01) (modifications are shown in bold letters)

Chemical name	CAS no.	Commercial name	Function	Composition [%] – w/w	
				2005-12-01	2011-12-14
Tebuconazole	107534-96-3	5.1.1.c Woo	active substance	buiten reikwijdte verzoek	
Oxirane, 2-methyl-, polymer oxirane	9003-11-6	5.1.1.c Woo	5.1.1.c Woo		
Oxirane, 2-methyl-, polymer oxirane	9003-11-6				

Chemical name	CAS no.	Commercial name	Function	Composition [%] – w/w	
				2005-12-01	2011-12-14
Residues, petroleum, catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts	68425-94-5	5.1.1.c Woo	5.1.1.c Woo	buiten reikwijdte verzoek	
Residues, petroleum, catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts	68425-94-5				
1,2,3-propanetriol	56-81-5				
xanthan gum	11138-66-2				
xanthan gum	11138-66-2				
1,2-benzisothiazol-3(2H)-one	2634-33-5				
1,2-benzisothiazol-3(2H)-one	2634-33-5				
polysiloxanes, di-Me	63148-62-9				
polysiloxanes, di-Me	63148-62-9				
water	7732-18-5	5.1.1.c Woo			

[1)] Calculated by using the density 1.12 g/cm³ (specified density of the formulation 1.100 - 1.140 g/cm³)
[2)] Based on the declared value of pure active substance (430 g/L)
[3)] Balance to 100 % or 1 L (1120 g) respectively

2. Physical, chemical and technical properties

Table 2 below shows the typical and specified technical properties of the previous and current formulation. With regard to physical, chemical and technical properties the parameters of the previous and current formulation are sufficiently comparable.

Table 2: Technical properties of Tebuconazole SC 430 (Spec. No. 102000008958)

	Spec. No. 102000008958 version 2005-12-01	**Spec. No. 102000008958 version 2011-12-14**
buiten reikwijdte verzoek		

3. Toxicology

The purpose of this toxicological bridging section is to explore the options to assess and classify/label the current formulation based on the already available toxicological data package established with closely related formulation(s) and/or individual formulants and, thus, to comply with animal welfare policies (avoidance of unnecessary testing in additional animals).

The toxicological studies for acute oral, dermal, and inhalation toxicity, skin and eye irritation, as well as for skin sensitisation (Buehler Patch Test) were performed in 1991 with a formulation containing tebuconazole at 430 g/L (Batch Nos. 0033039, 0030156).

Another study for skin sensitisation (Magnusson Kligman Test) was performed in 2004 with a formulation containing tebuconazole at 430 g/L (Batch No. 03860/0166 (0078)).

In the following only the Batch Nos. are used to describe these toxicologically tested formulations.

At the time of study conduct the test substances were named

5.1.1.c Woo

Table 3: Results from toxicological studies

Study type	Result	Author, year Report no.
Batch Nos. 0033039, 0030156		
Acute oral rat	LD_{50}: 3776 mg/kg bw (males) LD_{50}: 3710 mg/kg bw (females)	5.1.2.e Woo 1991 5533
Acute dermal rat	LD_{50} >2011 mg/kg bw	5.1.2.e Woo 1991 5995
Acute inhalation rat	LC_{50} > 2510 mg/m³ (max. techn. attainable concentration)	5.1.2.e Woo 1991 5998
Skin irritation rabbit	Slightly irritating	5.1.2.e Woo 1991 5964
Eye irritation rabbit	Slightly irritating	5.1.2.e Woo 1991 5997
Skin sensitisation in guinea pig (Buehler Patch Test)	Not sensitising	5.1.2.e Woo 1991 5532
Batch No. 03860/0166 (0078)		
Skin sensitisation in guinea pig (Magnusson-Kligman Test)	Not sensitising	5.1.2.e Woo 2004 AT01037

Based on these results, the formulations (Batch Nos. 0033039, 0030156) are of low toxicity after acute oral administration and of very low toxicity after acute dermal and inhalation

administration. They are slightly irritating to the skin and eyes, and show no sensitising potential under the conditions of the Buehler Patch test.

The formulation (Batch No. 03860/0166 (0078)) was not sensitising under the conditions of the Magnusson-Kligman Test.

In the following part of this section, the compositions of the toxicologically tested formulations and of the current formulation are compared and the composition changes are toxicologically assessed regarding the applicability of the available toxicological studies for the classification of the current formulation.

Table 4: Composition of the toxicologically tested formulation and of the current formulation

Function	Chemical name *[CAS]*	Toxicologically Tested Formulations		Current Formulation
		Batch Nos. 0033039, 0030156	Batch No. 03860/0166 (0078)	Spec. No. 102000008958, version 2011-12-14
		[%] – w/w	[%] – w/w	[%] – w/w
Active substance	Tebuconazole pure	buiten reikwijdte verzoek		
	Tebuconazole techn. (min. puritiy: 95 %) (min. puritiy: 97.6 %) *[107534-96-3]*			
5.1.1.c Woo	Oxirane, 2-methyl-, polymer oxirane *[9003-11-6]**			
	Residues, petroleum, catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts *[68425-94-5]* {Na-Naphthalenesulphonate – formaldehyde condensate div.}			
	1,2,3-propanetriol *[56-81-5]*			
	Xanthan gum *[11138-66-2]*			
	1,2-benzisothiazol-3(2H)-one *[2634-33-5]* (20 % aqueous solution) {BIT Aqueous DPG 20%}			
	Polysiloxanes, di-Me *[63148-62-9]**			
	Water, demineralised *[7732-18-5]*			

[1] Based on the declared value of pure active substances (430 g/L tebuconazole)

[2] Calculated using the density 1.12 g/cm^3 (specified density of the formulation 1.100 – 1.140 g/cm^3

() Calculated values, assuming 100% active substance

{} Frame name of alternative formulants contained in the current formulation

* This CAS number most generally describes the chemical identity of the formulant, according to the generally available chemical information, according to information in the MSDS or supplier specification

Toxicological assessment of the differences between the toxicologically tested and the current formulation

The differences between the toxicologically tested formulations and the current formulation are:

- **Active substance:** Slight reduction of the content of tebuconazole as compared to Batch Nos. 0033039, 0030156. Slight increase of tebuconazole content as compared to Batch No. 03860/0166(0078).

5.1.1.c Woo — Slight increase of the content of xanthan gum as compared to Batch Nos. 0033039, 0030156.
Reduction of the content of xanthan gum as compared to Batch No. 03860/0166 (0078).

5.1.1.c Woo — Reduction of 1,2-benzisothiazol-3(2H)-one as compared to Batch Nos. 0033039, 0030156.

5.1.1.c Woo Introduction of 5.1.1.c Woo as compared to Batch Nos. 0033039, 0030156 and 03860/0166(0078).

The following table compiles the toxicological properties of components with changes.

Table 4: Toxicological properties of components with changes

Chemical name *[CAS No.]*	Toxicological properties (according to MSDS or published data)	Health hazard classification	Formulation descriptor	Concentration (% w/w)
Active substance				
Tebuconazole *[107534-96-3]*	oral rat: LD_{50} 1700 mg/kg bw dermal rat: LD_{50} >2000 mg/kg bw inhalation rat: LC_{50} > 5.093 mg/L not irritating to skin and eyes non-sensitising	Xn, R22 R63	Batch No. 0033039, 0030156 Batch No. 03860/0166 (0078) Spec. No. 102000008958 version 2011-12-14	buiten reikwijdte verzoek
Toxicological assessment: The variations of the content of tebuconazole in the current formulation compared with the tested formulations are within the specification limits. Therefore, these variations have no impact on the toxicological properties of the current formulation.				
5.1.1.c Woo				
Xanthan gum *[11138-66-2]*	oral rat: LD_{50} > 5000 mg/kg bw non-irritant to skin and eye non-sensitising	None	Batch No. 0033039, 0030156 Batch No. 03860/0166 (0078) Spec. No. 102000008958 version 2011-12-14	buiten reikwijdte verzoek
Toxicological assessment: The content of the 5.1.1.c Woo xanthan gum is slightly increased from buiten re kwijdte ve in the toxicologically tested batches (0033039, 0030156) to buiten re kwijdte verz in the current formulation. The 5.1.1.c Woo is decreased from buiten reikwij in the toxicologically tested formulation (Batch No 03860/0166 (0078)) to buiten reikw jdte ve in the current formulation. Since the 5.1.1.c Woo is not classified for health hazards and does not contain any co-formulants, no change is expected in the toxicological properties of the current formulation. Furthermore, the 5.1.1.c Woo is approved as additive in food and cosmetics (89/107/EEC, 88/344/EEC and 76/768/EEC). In the US the 5.1.1.c Woo is exempted from the requirement of a tolerance under 40 CFR 180.950 and included in List 4A (minimal risk inert ingredients).				

Chemical name *[CAS No.]*	Toxicological properties (according to MSDS or published data)	Health hazard classification	Formulation descriptor	Concentration (% w/w)
5.1.1.c Woo				
1,2-benzisothiazol-3(2H)-one *[2634-33-5]*	oral rat (male/ female): LD_{50} = 1221/2175 mg/kg bw corrosive to the skin severely irritating to eyes sensitising	Xn, R22 C, R34 Xi, R43	Batch No. 0033039, 0030156	buiten reikwijdte verzoek
			Batch No. 03860/0166 (0078)	
			Spec. No. 102000008958 version 2011-12-14	
Toxicological assessment: The current formulation contains this 5.1.1.c Woo at a concentration of buiten reikwijdte verzoek The content of this 5.1.1.c Woo in the current formulation is decreased as compared to the tested formulation (Batch Nos. 0033039, 0030156). It should be noted that the sensitising properties of the 5.1.1.c Woo are mainly attributable to the presence of buiten reikwijdte verzoek benzisothiazolinone *[2634-33-5]*, which is classified as a sensitiser with a specific concentration limit in the EU. The actual percentage of benzisothiazolinone in the current formulation is buiten reikwijdte verzoek and therefore below the specific concentration limit (i.e. 0.05%) for classification as a sensitiser. In addition, none of the tested formulations showed a sensitising potential in guinea pigs. Especially the Magnusson Kligman test, which showed a negative result with a formulation that contained the sensitizer at the specific concentration limit of buiten reikwijdte verzoek The actual content of benzisothiazolinone buiten reikwijdte verzoek is also below the trigger value of 5 % for classification as an eye and skin irritant in the EU. Therefore, no change of the toxicological properties of the current formulation is expected.				
5.1.1.c Woo				
Polysiloxanes, di-Me *[63148-62-9]*	oral rat: LD_{50} > 5000 mg/kg bw dermal rat LD_{50} > 2000 mg/kg bw non-sensitising	none	Batch No. 0033039, 0030156	buiten reikwijdte verzoek
			Batch No. 03860/0166 (0078)	
			Spec. No. 102000008958 version 2011-12-14	
Toxicological assessment: The current formulation contains the 5.1.1.c Woo at a concentration of buiten reikwijdte The 5.1.1.c Woo was not present in the tested formulations with Nos. Batch No. 0033039, 0030156, and 03860/0166 (0078). According to the MSDSs the acute toxicity profile of polysiloxanes, di-Me is favourable and has no classification for health hazards. It is not expected that the introduction of the 5.1.1.c Woo adversely impacts the acute toxicity profile of the current formulation. In addition, these 5.1.1.c Woo are included in the US EPA exemption list 4B for inert ingredients for which EPA has sufficient information to conclude that their current use patterns in pesticide products will not adversely affect public health and the environment.				

Furthermore, for a given function alternative (optional) formulants (usually from different suppliers but with identical chemical name) are included in the current formulation (see Table 1), although only one of the respective individual formulants was contained in the toxicologically tested batch(es). The equivalence of each of the alternative (optional) formulants has been thoroughly checked with regard to chemical identity, technical and safety properties

(comparable toxicological profile according to MSDSs). This equivalence check is reported separately as follows:

5.1.1.c Woo EO(50 percent)PO (MW3000)Block copolymer - Oxirane, 2-methyl-, polymer oxirane
5.1.2.e Woo M-409388-01-1)
Na-Naphthalenesulphonate-formaldehyde condensate div.
5.1.2.e Woo M-368723-01-1)
Xanthan gum div.
5.1.2.e Woo M-386128-01-1)
BIT Aqueous DPG 20%
5.1.2.e Woo ,M-407313-02-1)
Polysiloxanes, di-Me
5.1.2.e Woo M-384772-01-2

Conclusion

The assessment of the composition changes reveals that the changes between the toxicologically tested formulations (Batch Nos. 0033039, 0030156, and 03860/0166 (0078)) and the current formulation (Spec. No. 102000008958, version 2011-12-14) are toxicologically uncritical. Therefore, the respective toxicological studies can be used also for the toxicity assessment and classification/labelling of the current formulation.

In the EU the active substance tebuconazole is classified as Category 3 reproductive toxicant and labelled with R63 (Possible risk of harm to the unborn child). The content of tebuconazole in the current formulation is buiten reikwijdte %, and therefore above the trigger value of 5% for classification. Therefore, the current formulation has to be labelled with R63.

4. Ecotoxicology

From the eco-toxicological point of view the use of alternative formulants with the same CAS number are regarded as minor changes which would have no impact on the ecotoxicological properties of the formulation. The only quantitative change is the reduction in the 5.1.1.c Woo balanced by additional water, which should also have no negative effect on the outcome of the ecotoxicological assessment.

The introduction of the 5.1.1.c Woo is uncritical. The amount is minor (only [illegible] and the available ecotoxicological data out of the corresponding MSDS indicate EC50 or LC50 values for Daphnia, fish and algae >100 mg/l for polysiloxanes, di-Me. Therefore, it has no ecotoxicological impact. In addition, the 5.1.1.c Woo is **not** classified to be harmfull to aquatic organisms or to be dangerous for the environment. The adaptation of the 5.1.1.c Woo demineralised water is of no relevance for the ecotoxicological properties of the current formulation.

Conclusion

The slight changes in the formulation are not considered to have a negative impact on the ecotoxicological profile of the product.

5. Classification

Proposals for the classification and labelling

with regard to toxicological data:	Xn	Harmful
	R63	Possible risk of harm to the unborn child.
with regard to eco-toxicological data:	N	Dangerous for the environment
	R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

6. References

Author	Title	Report No.	Edition No.	Date
5.1.2.e Woo	5.1.1.c Woo		Vers. 5	01/06/2010
5.1.2.e Woo	Acute Oral Toxicity Study with 5.1.1.c Woo in Rats	101272	M-020774-01-1	1991-07-29
	Acute Dermal Toxicity Study with 5.1.1.c Woo in Rats	5995	M-020758-01-1	1991-07-23
	Acute Four-Hour Inhalation Toxicity Study with 5.1.1.c Woo in Rats	5998	M-020763-01-1	1991-07-23
	Primary Dermal Irritation Study with 5.1.1.c Woo in Rabbits	5964	M-020757-01-1	1991-06-25
	Primary Eye Irritation Study with 5.1.1.c Woo in Rabbits	5997	M-020761-01-1	1991-07-23
	Dermal Sensitization Study with 5.1.1.c Woo in Guinea pigs	5532	M-020990-01-1	1991-07-29
	5.1.1.c Woo - Study for the Skin Sensitization Effect in guinea pigs (Guinea pig Maximisation Test according to Magnusson and Kligman)	AT01037	M-000414-01-1	2004-03-02
5.1.2.e Woo	Check of equivalence for alternative formulants - EO(50 percent)PO (MW3000)Block copolymer - Oxirane, 2-methyl-, polymer oxirane	--	M-409388-01-1	2011-06-15
	Check of Equivalence for Alternative Formulants – Na-Naphthalenesul-phonate-formaldehyde condensate div.	--	M-368723-01-1	2010-05-14
	Check of Equivalence for Alternative Formulants – Xanthan gum div.	--	M-386128-01-1	2010-07-13
	Check of Equivalence for Alternative Formulants – BIT Aqueous DPG 20% - 1,2-benzisothiazol-3(2H)-one	--	M-407313-02-1	2011-08-04
	Check of equivalence for alternative formulants – Polysiloxanes, di-Me	--	M-384772-01-2	2010-12-08

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Check of Equivalence for Alternative Formulants
EO(50%)PO(MW3000)Block Copolymer

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5.1.1.c Woo

5.1.2.e Woo

Oxirane, 2-methyl-, polymer oxirane

To the authorities

To whom it may concern

The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified below was thoroughly checked with regard to chemical identity, technical properties and safety properties. The fundamentals for this check are also laid down in the ‚Manual on Development and Use of FAO and WHO Specifications for Pesticides (2006)' and in the ‚Technical Monograph no 19 (Minor Changes of Formulants in Formulations)' from CropLife International.

Name of the Frame/Cluster:	**EO(50%)PO(MW3000) Block Copolymer**	**Specification No.:**	**107000000490**
Frame components (commercial names)*:	5.1.1.c Woo	Date of Issue:	2011-06-15

*: note, that the name can change with the same supplier in case of new branding, or when the legal entity has changed.

Chemical Identity:

All co-formulants, 5.1.1.c Woo 5.1.1.c Woo used as 5.1.1.c Woo in plant protection products, can be assigned to the chemical class ‚Propoxylated (PO)-ethoxylated (EO) block polymers', a polymer defined by CAS number 9003-11-6 (Oxirane, 2-methyl-, polymer oxirane). The molecular mass is approximately 3000 g/mol.

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M-409388-01-1

Technical Properties:

The technical properties of all frame components as guaranteed/specified by the suppliers are identical or similar with respect to appearance, odour, density, water solubility/miscibility, pH and viscosity.
Furthermore, BCS Formulation Technology makes sure that the use of all alternative formulants keeps the specified technical properties of the resulting preparations (plant protection products) unchanged.

Safety Properties:

The polymer as assigned to the CAS number 9003-11-6 is not officially classified in Annex I of EC Directive 67/548/EEC.
Furthermore, it is not classified as dangerous by the manufacturers according to EC Directives 67/548/EEC or 1272/2008.

5.1.2.e Woo

Date: 2011-06-15

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Check of Equivalence for Alternative Formulants

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Development
Global Regulatory Affairs
5.1.1.c Woo
5.1.1.c Woo
5.1.2.e Woo

To the authorities

To whom it may concern

The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified below was thoroughly checked with regard to chemical identity, technical properties and safety properties. The fundamentals for this check are also laid down in the ‚Manual on Development and Use of FAO and WHO Specifications for Pesticides (2006)' and in the ‚Technical Monograph no 19 (Minor Changes of Formulants in Formulations)' from CropLife.

Name of the Frame/Cluster:	**Na-Naphthalenesulphonate-formaldehyde condensate**	**Specification No.:**	**107000000466**
Frame components (commercial names)*:	5.1.1.c Woo	Date of Issue:	2011-06-27

*: note, that the name can change with the same supplier in case of new branding, or when the legal entity has changed.

Chemical Identity:

Both co-formulants used as eg. 5.1.1.c Woo in plant protection products 5.1.1.c Woo and 5.1.1.c Woo (formerly 5.1.1.c Woo are assigned to the chemical class Naphtha (Naphthalene) sulphonates, formaldehyde condensate, sodium salts (generic description of the polymer) with the CAS number 68425-94-5 (CAS name Residues, petroleum, catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts).

Technical Properties:

The technical properties of both frame components as guaranteed/specified by the suppliers are identical or very similar with respect to appearance, odour, pH, relative density and water solubility.
Furthermore, BCS Formulation Technology makes sure that the use of all alternative formulants keeps the specified technical properties of the resulting preparations (plant protection products) unchanged.

Safety Properties:

The substance as assigned to the CAS number 68425-94-5 is not officially classified in Annex I of Directive 67/548/EEC.
Although the chemical identity of the polymer is the same, 5.1.1.c Woo is not classified by the supplier 5.1.1.c Woo itself whereas 5.1.1.c Woo has a self-classification made by the supplier with Xi (irritant), R36/38 (irritating to eyes and skin). In parallel, based on EC Directive 1272/2008 (CLP) the classification is reported with ‚skin irritation, category 2; H315', respectively with ‚eye irritation, category 2; H319'.
This classification formally has no impact on the classification on the resulting preparation (formulation), since the 5.1.1.c Woo are used at a nominal concentration of smaller than 20%. Thus, a formal classification is not triggered by both Directive 67/548/EEC and 1272/2008. Nevertheless, in order to address this classification inconsistency, the tox testing for the formulations is always done with preparations containing 5.1.1.c Woo

5.1.2.e Woo

Date: 2011-06-27

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Check of Equivalence for Alternative Formulants – Xanthan Gum div.

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5.1.1.c Woo

5.1.2.e Woo

To the authorities

To whom it may concern

The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified below was thoroughly checked with regard to chemical identity, technical properties and safety properties. The fundamentals for this check are also laid down in the ‚Manual on Development and Use of FAO and WHO Specifications for Pesticides (2006)' and in the ‚Technical Monograph no 19 (Minor Changes of Formulants in Formulations)' from CropLife International.

Name of the Frame/Cluster:	**Xanthan Gum div. Xanthan gum, heteropolysaccharides**	**Specification No.:**	**107000000209**
Frame components (commercial names)*:	5.1.1.c Woo	Date of Issue:	2010-07-13

*: note, that the name can change with the same supplier in case of new branding, or when the legal entity has changed.

Chemical Identity:

All co-formulants used as 5.1.1.c Woo in plant protection products, 5.1.1.c Woo 5.1.1.c Woo are blends of anionic heteropolysaccharides with the CAS no 11138-66-2 (Xanthan gum).

M-386128-01-1

Technical Properties:

The technical properties of all frame members as guaranteed/specified by the suppliers in the safety data sheets (SDS) are identical or very similar with respect to appearance, odour, water solubility and pH value.

Furthermore, BCS Formulation Technology makes sure that the use of all alternative formulants keeps the specified technical properties of the resulting preparations (plant protection products) unchanged. As a consequence, this can mean that for certain preparations only specific co-formulants out of the cluster are suitable and will be addressed.

Safety Properties:

The product does not need to be classified respectively labelled according to EC-directives 67/548/EEC or 1999/45/EC.

5.1.2.e Woo

Date: 2010-07-13 Signature:

Bayer CropScience

Check of Equivalence for Alternative Formulants – BIT Aqueous DPG 20%

1,2-benzisothiazol-3(2H)-one

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5.1.1.c Woo

5.1.2.e Woo

To the authorities

To whom it may concern

The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified below was thoroughly checked with regard to chemical identity, technical properties and safety properties. The fundamentals for this check are also laid down in the ‚Manual on Development and Use of FAO and WHO Specifications for Pesticides (2006)' and in the ‚Technical Monograph no 19 (Minor Changes of Formulants in Formulations)' from CropLife International.

Name of the Frame/Cluster:	**BIT Aqueous DPG 20%**	**Specification No.:**	**107000000464**
Frame components (commercial names)*:	5.1.1.c Woo	Date of Issue:	2011-05-11

*: note, that the name can change with the same supplier in case of new branding, or when the legal entity has changed.

Chemical Identity:

All co-formulants used as 5.1.1.c Woo in plant protection products, 5.1.1.c Woo 5.1.1.c Woo are (alkalinic) aqueous dipropylene glycol solutions (20%) of the biocide 1,2-benzisothiazol-3(2H)-one (CAS name) with the CAS number 2634-33-5.

M-407313-01-1

Technical Properties:

The physical-chemical/technical properties of all frame components/members as guaranteed/specified by the suppliers in the safety data sheets (SDS) are identical or similar with respect to appearance, density, pH, vapour pressure and water solubility. The pH usually is adjusted with sodium hydroxide, which leads to alkalinic conditions..

Furthermore, BCS Formulation Technology makes sure that the use of all alternative formulants keeps the specified technical properties of the resulting preparations (plant protection products) unchanged. As a consequence, this can mean that for certain preparations only specific co-formulants out of the cluster are suitable and will be addressed.

Safety Properties:

The classification of the aqueous dipropylene glycol biocide solution, as noted in the MSDS (chapter 15 ‚regulatory information'), is:

C; R34	Corrosive; causes burns (only necessary, if pH is $\leq$ 2.0 or $\geq$ 11.5, depending on the amount of sodium hydroxide added. In case the range is 2 < pH < 11.5, a classification R41 and R38 may be sufficient)
R43	May cause sensitisation by skin contact
R22	Harmful if swallowed
N;R50	Very toxic to aquatic organisms

This classification is based on the EU Directives 67/548/EEC and 1999/45/EC (including amendments). The content of the 5.1.1.c Woo in the plant protection product may have an impact on the formal classification of the plant protection product. Usually it is used in the final preparations at concentrations significantly below 1%.

5.1.2.e Woo

Date: 2011-05-11

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Check of Equivalence for Alternative Formulants – Polysiloxanes, di-Me

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Development
Global Regulatory Affairs
5.1.1.c Woo
5.1.2.e Woo

To the authorities

To whom it may concern

The equivalence of the present alternative (optional) formulants assigned to the frame/cluster as specified below was thoroughly checked with regard to chemical identity, technical properties and safety properties. The fundamentals for this check are also laid down in the ‚Manual on Development and Use of FAO and WHO Specifications for Pesticides (2006)' and in the ‚Technical Monograph no 19 (Minor Changes of Formulants in Formulations)' from CropLife International.

Name of the Frame/Cluster:	5.1.1.c Woo	**Specification No.:**	**107000000051**
Frame components (commercial names)*:		Date of Issue:	2010-12-08

*: note, that the name can change with the same supplier in case of new branding, or when the legal entity has changed.

Chemical Identity:

All co-formulants used as 5.1.1.c Woo in plant protection products, 5.1.1.c Woo 5.1.1.c Woo are aqueous emulsions of the polymeric compound Polydimethylsiloxane with the CAS no 63148-62-9 (Polysiloxanes, di-Me).

M-384772-01-2

Technical Properties:

The technical properties of all frame components as guaranteed/specified by the suppliers in the safety data sheets (SDS) are identical or very similar with respect to appearance, odour, boiling point, vapour pressure, density, water solubility and pH value.

Furthermore, BCS Formulation Technology makes sure that the use of all alternative formulants keeps the specified technical properties of the resulting preparations (plant protection products) unchanged. As a consequence, this can mean that for certain preparations only specific co-formulants out of the cluster are suitable and will be addressed.

Safety Properties:

The product does not need to be classified respectively labelled according to EC-directives 67/548/EEC or 1999/45/EC.

Date: 2010-12-08

Signature: 5.1.2.e Woo

Appendix 2: Statement on the regulatory status of formulants

Unless a dossier in accordance with Annex III is submitted for every formulant included in the preparation (ingredient other than active substance) a statement as to whether the substance is permitted in food, animal feeding stuffs, medicines or cosmetics in accordance with Community legislation.

Oxirane,2- methyl, polymer with oxirane

Cas n 003 11

It is included in

- Section 1, Annex (Cosmetic Ingredients other than Perfume and Aromatic Ma terial) of Commission Directive 00 /5 /C amending Decision /335/C establishing an inventory and a common nomenclature of ingredients employed in cosmetic products used in cosmetic products IC name PEG/PPG-150/30 COPOLYMERas Emulsifying/surfactant
- Inert Ingredients list permitted for Use in Nonfood Use Pesticide Products (Last Updated arch , 010) in US

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts

Cas n **68425-94-5**

It is included in

- Inert Ingredients list permitted for Use in Nonfood Use Pesticide Products (Last Updated April 011) in US
- The substance is included in the European Pharmacopoeia 0

1,2,3-propanetriol

Cas number 5 1 5

It is included in

- Directive 00 /5 /C of uly 00 amending Directive o 5/ /C of 0 ebruary 1 5 on food additives other than colours and sweeteners, (and) Council Directive o / /C C prescribing specific purity criteria for those compounds, under the number 4
- This substance is listed in Section 1, Annex (Cosmetic Ingredients other than Perfume and Aromatic Ma terial) of Commission Decision of 00 /5 /C amending decision /335/C establishing an inventory and a common nomenclature of ingredients employed in cosmetic products IC name L C /glycerol, name glycerol as denaturants/humectants/solvents
- Inert Ingredients list permitted for Use in Non food Use pesticide products (last updated April, 011) in US
- Inert Ingredients eligible for 5(b) Pesticide Products (Last Updated ecember 0, 010) in US
- The substance is included in the European Pharmacopoeia 0

Xanthan gum

Cas n□□1113□□□□□

□t is included in□

- Section 1, □nnex □(Cosmetic □ngredients other than Perfume and □romatic □a□ □aterial) of Commission □irecti□e □00□/□5□/□C amending □ecision □□/335/□C establishing an in□entory and a common nomenclature of ingredients employed in cosmetic products used in cosmetic products □□C□□ame□□□□T□□□ □□□ as □inding/emulsion stabilising/□iscosity controlling/gel forming□
- □irecti□e □00□/5□/□C of □uly □00□amending □irecti□e □o □5/□/□C of □0 □ebruary 1□□5 on food additi□es other than colours and s□eeteners, (and) Council □irecti□e □o □□/□□/□C □C prescribing specific purity criteria for those compounds, under the number □415
- Tolerance exemptions for minimal ris□acti□e and inert ingredients (Last □pdated □une 0□, □011) in □S□
- □nert □ngredients list permitted for □se in □on food □se Pesticide Products (Last □pdated □pril, □011) in □S□
- The substance is included in the □uropean Pharmacopoeia □□□□

Benzisothiazolinone

C□S □□□□□34□33□5
EINECS N°. 220-120-9
Chemical description□ 1,□benzisothiazol□3(□□)□one sodium salt

□t is included in□

- Section 1, □nnex □(Cosmetic □ngredients other than Perfume and □romatic □a□ □aterial) of Commission □irecti□e □00□/□5□/□C amending □ecision □□/335/□C establishing an in□entory and a common nomenclature of ingredients employed in cosmetic products used in cosmetic products□□□C□□ame□□□C□□ame□ □□□□□S□T□□□□□L□□□□□ as antimicrobial□
- □nert □ngredients list permitted for □se in □on food □se Pesticide Products (Last □pdated □arch □□, □010) in □S□

Siloxanes and silicones, di-Me

Cas n□□**63148-62-9**

□t is included in□

- □irecti□e □00□/5□/□C of □uly □00□amending □irecti□e □o □5/□/□C of □0 □ebruary 1□□5 on food additi□es other than colours and s□eeteners and Council □irecti□e □o □□/□□/□C prescribing specific purity criteria for those compounds, under the number □□00
- Section 1, □nnex □(Cosmetic □ngredients other than Perfume and □romatic □a□ □aterial) of Commission □irecti□e □00□/□5□/□C amending □ecision □□/335/□C establishing an in□entory and a common nomenclature of ingredients employed in cosmetic products used in cosmetic products□□□C□□ame □□imethicone as □ntifoaming/emollient
- □nert □ngredients list permitted for □se in □onfood □se Pesticide Products (Last □pdated □pril □011) in □S□

Appendix 3: Material Safety Data Sheets

STATEMENT FOR MSDSs PROVIDED

□lthough a □S□S may ha□e been issued more than one year ago, □e certify that the content of all □S□Ss pro□ided in this document, dated 3 January □012 are still □alid at the time of the finalization of this dossier□

Safety Data Sheets for the Product

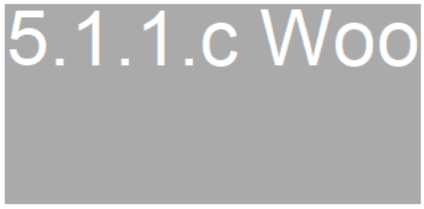
The Safety □ata Sheet for the plant protection product is not confidential, so please refer to the safety data sheet in Part □, Section 1□

Safety Data Sheets for the Formulants

□nless a dossier in accordance □ith □nnex □□is submitted for e□ery formulant included in the preparation (ingredient other than acti□e substance)□□ copy of the safety data sheet prepared in accordance □ith □irecti□e □□/54□/□□C□

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5.1.1.c Woo

Material Safety Data Sheet

5.1.1.c Woo

Section 1. Chemical Product and Company Identification

Product name 5.1.1.c Woo

Material Uses : Surfactant.

In Case of Emergency

Supplier/ Manufacturer

5.1.1.c Woo

Section 2. Hazards Identification

Physical State Solid.

Color White.

Odor Bland.

Emergency Overview CAUTION!
MAY CAUSE EYE IRRITATION.

Avoid contact with eyes. Wash thoroughly after handling.

Routes of Entry Absorbed through skin. Eye contact.

See Toxicological Information (section 11)

Section 3. Composition/ Information on Ingredients

Name	CAS #	% by Weight
1,2-Propanediol, polymer with methyloxirane and oxirane	65395-10-0	buiten reikwijdte verzoek
ethylene oxide	75-21-8	

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 30 minutes. Cold water may be used. Get medical attention.

Skin Contact Wash with soap and water. Get medical attention if irritation develops. Cold water may be used.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Medical Conditions Aggravated by Overexposure: Repeated or prolonged exposure is not known to aggravate medical condition.

Continued on Next Page

Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Flash Points	Closed cup: >93°C (199.4°F). (Pensky-Martens.)
Products of Combustion	These products are carbon oxides (CO, CO_2).
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Protective Clothing (Fire)	Be sure to use an approved/certified respirator or equivalent.

Section 6. Accidental Release Measures

Small Spill and Leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill and Leak	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Handling	Avoid contact with eyes. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.
Other Special Considerations	**ethylene oxide**: This product contains trace amounts of ethylene oxide, a condition which creates the potential for accumulation of ethylene oxide in the headspace of shipping and storage containers and in enclosed areas where the product is being handled or used. If this product is handled according to the recommendations in the MSDS, the presence of these trace amounts of ethylene oxide is not expected to result in any short term or long term hazard.

Section 8. Exposure Controls/ Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	
Eyes	Splash goggles.
Body	Lab coat.
Respiratory	Respirator. Be sure to use an approved/certified respirator or equivalent.
Hands	Gloves.
Feet	Suitable protective footwear.
Protective Clothing (Pictograms)	
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Ingredient Name	Exposure Limits United States

Continued on Next Page

1,2-Propanediol, polymer with methyloxirane and oxirane	Not available.
ethylene oxide	**ACGIH TLV (United States, 2006). Notes: Substance identified by other sources as a suspected or confirmed human carcinogen. Refers to Appendix A -- Carcinogens.** TWA: 1.8 mg/m^3 8 hour(s). TWA: 1 ppm 8 hour(s). **NIOSH REL (United States, 2001). Notes: Value is for minutes per day. See Appendix A - NIOSH Potential Occupational Carcinogen** CEIL: 9 mg/m^3 10 minute(s). CEIL: 5 ppm TWA: 0.18 mg/m^3 10 hour(s). TWA: 0.1 ppm 10 hour(s). **OSHA PEL (United States, 1997).** STEL: 5 ppm 15 minute(s). TWA: 1 ppm 8 hour(s). **OSHA PEL 1989 (United States, 1989). Notes: Sec. 1910.1047 Ethylene oxide.** STEL: 5 ppm 15 minute(s). TWA: 1 ppm 8 hour(s).

Section 9. Physical and Chemical Properties

Physical State	buiten reikwijdte verzoek
Color	
Odor	
pH	
Boiling/Condensation Point	
Melting/Freezing Point	
Density	
Vapor Pressure	
Solubility	
Dispersion Properties	
Physical Chemical Comments	

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility with Various Substances	Reactive with OXIDIZING AGENTS.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Toxicity to Animals

Ingredient Name or Product name	Test	Result	Route	Species
1,2-Propanediol, polymer with methyloxirane and oxirane	LD50	5700 mg/kg	Oral	Rat
	LD50	2300 mg/kg	Oral	Rat
	LD50	1830 mg/kg	Oral	Mouse
ethylene oxide	LD50	72 mg/kg	Oral	Rat
	LD50	270 mg/kg	Oral	Guinea pig

Special Remarks on Toxicity to Animals	Short-term harmful health effects are not expected from vapor generated at ambient temperature.
Acute Effects Skin	Slightly irritating to the skin.
Acute Effects Eyes	Moderately irritating to the eyes.

Continued on Next Page

Special Remarks on Other Toxic Effects on Humans : Prolonged contact may cause irritation.

Section 12. Ecological Information

Ecotoxicity

Ingredient Name or Product name	Species	Period	Result
1,2-Propanediol, polymer with methyloxirane and oxirane	Fish based on data for: (similar material) (LC50)	96 hour(s)	>100 mg/l
	daphnia based on data for: (similar material) (EC50)	48 hour(s)	>100 mg/l
ethylene oxide	Pimephales promelas (LC50)	96 hour(s)	84 mg/l

Biodegradability and Ecotoxicity Remarks **1,2-propanediol, polymer with methyloxirane and oxirane:** Not readily biodegradable (based on similar product data).

Products of Degradation These products are carbon oxides (CO, CO_2) and water.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Consult your local or regional authorities.

Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
DOT Classification	Not regulated.	-	- -	-		-
TDG Classification	Not regulated.	-	- -	-		-
IMDG Class	Not regulated.	-	- -	-		-
IATA-DGR Class	Not regulated.	-	- -	-		-

Section 15. Regulatory Information

HCS Classification Not controlled under the HCS (United States).

U.S. Federal Regulations TSCA: All intentionally present components are listed on the TSCA inventory.

DSL: All intentionally present components are listed on the DSL.

TSCA 5(a)2 final significant rules: No products were found.

CERCLA: Hazardous substances.: ethylene oxide: 10 lbs. (4.536 kg);

Continued on Next Page

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

SARA 313 Form R Reporting Requirements
No products were found.

SARA 313 Supplier Notification
No products were found.

Other Regulations

Not applicable.

State Regulations

Pennsylvania RTK: ethylene oxide: (special hazard, environmental hazard, generic environmental hazard)
Massachusetts RTK: ethylene oxide
New Jersey: ethylene oxide

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: ethylene oxide
California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: ethylene oxide
California prop. 65 (no significant risk level): ethylene oxide
California prop. 65 (acceptable daily intake level): ethylene oxide
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: ethylene oxide

WHMIS (Canada)

Not controlled under WHMIS (Canada).

CEPA DSL: 1,2-propanediol, polymer with methyloxirane and oxirane; ethylene oxide

European Union

Component	EC Number	EC Status	EC Annex
1,2-Propanediol, polymer with methyloxirane and oxirane	Not available.	Not available.	Not available.
ethylene oxide	200-849-9	Not available.	603-023-00-X

Other International Lists

Australia (NICNAS): 1,2-propanediol, polymer with methyloxirane and oxirane; ethylene oxide

China: 1,2-propanediol, polymer with methyloxirane and oxirane; ethylene oxide

Germany water class: ethylene oxide

Japan (MITI): 1,2-propanediol, polymer with methyloxirane and oxirane; ethylene oxide

Japan (MOL): ethylene oxide

Korea (TCCL): 1,2-propanediol, polymer with methyloxirane and oxirane; ethylene oxide

Philippines (RA6969): 1,2-propanediol, polymer with methyloxirane and oxirane; ethylene oxide

Section 16. Other Information

Hazardous Material Information System (U.S.A.)

Health	1
Fire Hazard	1
Physical Hazards	0
Personal Protection	

National Fire Protection Association (U.S.A.)



Other Information

5.1.1.c Woo

Validation Date 5/25/2010.
Previous Validation Date 5/16/2007.
Validated by Product Safety Specialist
Print Date 5/25/2010.
Phone Number 5.1.1.c Woo

Continued on Next Page

Notice to Reader

The information in the material safety data sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable as of the date of publication. However, no warranty is made as to the accuracy of and/or sufficiency of such information and/or suggestions or as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. Buyer must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old, call to make certain that this sheet is current.

5.1.1.c Woo

5.1.1.c Woo

Safety data sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

5.1.1.c Woo

Chemical name: Oxirane, methyl-, polymer with oxirane
CAS Number: 9003-11-6

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Raw material for the chemical-technical industry

Details of the supplier of the safety data sheet

5.1.1.c Woo

Emergency telephone number

5.1.1.c Woo

2. Hazards Identification

Label elements

According to Regulation (EC) No 1272/2008 [CLP]

Globally Harmonized System, EU (GHS)

The product does not require a hazard warning label in accordance with GHS criteria.

According to Directive 67/548/EEC or 1999/45/EC

as in Annex VI of Directive 67/548/EEC

The product does not require a hazard warning label in accordance with EC Directives.
This surfactant does not comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

No need for classification according to GHS criteria for this product.

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:
No particular hazards known.

Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

Other Hazards (GHS):
No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition/Information on Ingredients

Substances

Chemical nature

Oxirane, methyl-, polymer with oxirane
CAS Number: 9003-11-6

4. First-Aid Measures

Description of first aid measures

Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:
Wash thoroughly with soap and water.

Areas affected by molten material should be quickly placed under cold running water. Solidified product should not be pulled from the skin. Burns caused by molten material require hospital treatment. Immediate medical attention required.

On contact with eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:
Rinse mouth and then drink plenty of water.

Most important symptoms and effects, both acute and delayed
Symptoms: No significant symptoms are expected due to the non-classification of the product.

Indication of any immediate medical attention and special treatment needed
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media
Suitable extinguishing media:
water spray, dry powder, foam

Special hazards arising from the substance or mixture
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters
Special protective equipment:
Wear a self-contained breathing apparatus.

Further information:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Use personal protective clothing. Information regarding personal protective measures see, chapter 8.

Environmental precautions
Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up
For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Pick up with suitable appliance and dispose of.

Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

Precautions for safe handling

No special measures necessary provided product is used correctly.

Protection against fire and explosion:
No special precautions necessary.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

The packed product is not damaged by low temperatures or by frost. Bulk must be protected from solidification.
Protect from temperatures above: 70 °C
Properties of the product change irreversibly on exceeding the limit temperature.

8. Exposure Controls/Personal Protection

Control parameters

Components with workplace control parameters

none

Exposure controls

Personal protective equipment

Respiratory protection:
Respiratory protection in case of vapour/aerosol release. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:
Chemical resistant protective gloves (EN 374)
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):
nitrile rubber (NBR) - 0.4 mm coating thickness
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.
Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

buiten reikwijdte verzoek

Form:
Colour:
Odour:
Odour threshold:

pH value:

solidification temperature
Boiling point:

Flash point:
Evaporation rate:

Density:

Solubility in water:
Solubility (qualitative) so

Self ignition:

Explosion hazard:

Other information

Other Information:
If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: Corrosive effects to metal are not anticipated.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
No hazardous reactions when stored and handled according to instructions.

Conditions to avoid
See MSDS section 7 - Handling and storage.

Incompatible materials

Substances to avoid:

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Experimental/calculated data:
LD50 rat (oral): > 2,000 mg/kg

Irritation

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (Draize test)

Serious eye damage/irritation rabbit: non-irritant (Draize test)

12. Ecological Information

Toxicity

Toxicity to fish:
LC50 (96 h) > 100 mg/l, Leuciscus idus

Aquatic invertebrates:
EC50 (48 h) > 100 mg/l

Aquatic plants:
EC50 (72 h) > 100 mg/l

Microorganisms/Effect on activated sludge:
Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
is partially eliminated in sewage treatment plants

Bioaccumulative potential

Assessment bioaccumulation potential:
Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

Mobility in soil (and other compartments if available)

Assessment transport between environmental compartments:
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is possible.

Results of PBT and vPvB assessment

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fullfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification

Additional information

Other ecotoxicological advice:
The product has not been tested. The statement has been derived from products of a similar structure or composition.

13. Disposal Considerations

Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:
Uncontaminated packaging can be re-used.
Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. Transport Information

Land transport

ADR

Not classified as a dangerous good under transport regulations

RID

Not classified as a dangerous good under transport regulations

Inland waterway transport
ADN

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Chemical Safety Assessment

Chemical Safety Assessment not required

16. Other Information

Not to be used as an aerosol.

Information on intended use: This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use. This includes the mentioned and recommended usage. Any other intended applications should be discussed with the manufacturer. In particular this concerns the application for products that are the object of special standards and regulations.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.


5.1.1.c Woo

5.1.1.c Woo

Safety data sheet

5.1.1.c Woo Safety data sheet according to Regulation (EC) No. 1907/2006
Date / Revised: 11.08.2010 Version: 1.1
Product: 5.1.1.c Woo
(30088663/SDS_GEN_EU/EN)
Date of print 12.08.2010

1. Identification of the substance/mixture and of the company/undertaking

5.1.1.c Woo

Chemical name: block copolymer based on: propylene oxide and ethylene oxide; starting materials listed in EINECS

Use: Raw material for the chemical-technical industry

Company:

5.1.1.c Woo

Emergency information:
International emergency number:
5.1.1.c Woo

2. Hazards Identification

According to REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Label elements and precautionary statement:

The product does not require a hazard warning label in accordance with GHS criteria.

Classification of the substance and mixture:
No need for classification according to GHS criteria for this product.

Possible Hazards (according to Directive 67/548/EWG or 1999/45/EC)

No particular hazards known.

3. Composition/Information on Ingredients

Chemical nature

Block polymer based on: propylene oxide and ethylene oxide

Starting materials listed in EINECS

4. First-Aid Measures

General advice:
Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air.

On skin contact:
Wash thoroughly with soap and water.

Areas affected by molten material should be quickly placed under cold running water. Solidified product should not be pulled from the skin. Burns caused by molten material require hospital treatment. Immediate medical attention required.

On contact with eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:
Rinse mouth and then drink plenty of water.

Note to physician:
Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Suitable extinguishing media:
water spray, dry powder, foam

Specific hazards:
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Wear a self-contained breathing apparatus.

Further information:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:
Use personal protective clothing. Information regarding personal protective measures see, chapter 8.

Environmental precautions:
Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:
For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Pick up with suitable appliance and dispose of.

7. Handling and Storage

Handling

No special measures necessary provided product is used correctly.

Protection against fire and explosion:
No special precautions necessary.

Storage

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

8. Exposure Controls/Personal Protection

Personal protective equipment

Respiratory protection:
Respiratory protection in case of vapour/aerosol release. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:
Chemical resistant protective gloves (EN 374)
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):
nitrile rubber (NBR) - 0.4 mm coating thickness
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.
Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures:
Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended.

9. Physical and Chemical Properties

Form:	buiten reikwijdte verzoek	
Odour:		
pH value:		
Freezing point:		
Boiling point:		
Flash point:		(ASTM D92)
Vapour pressure:		
Density:		
Solubility in water:		
Viscosity, dynamic:		

10. Stability and Reactivity

Corrosion to metals: No corrosive effect on metal.

Hazardous reactions:
No hazardous reactions when stored and handled according to instructions.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Experimental/calculated data:
LD50 rat (oral): > 2,000 mg/kg

Irritation

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (Draize test)

Serious eye damage/irritation rabbit: non-irritant (Draize test)

Other relevant toxicity information

The product has not been tested. The statements on toxicology have been derived from products of a similar structure and composition.

12. Ecological Information

Ecotoxicity

Toxicity to fish:
LC50 (96 h) > 100 mg/l, Leuciscus idus

Aquatic invertebrates:
EC50 (48 h) > 100 mg/l

Aquatic plants:
EC50 (72 h) > 100 mg/l

Microorganisms/Effect on activated sludge:
Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
is partially eliminated in sewage treatment plants

Additional information

Other ecotoxicological advice:
The product has not been tested. The statements on ecotoxicology have been derived from products of a similar structure and composition.

13. Disposal Considerations

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:
Uncontaminated packaging can be re-used.
Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. Transport Information

Land transport

ADR

Not classified as a dangerous good under transport regulations

RID

Not classified as a dangerous good under transport regulations

Inland waterway transport
ADNR

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Regulations of the European union (Labelling) / National legislation/Regulations

The product does not require a hazard warning label in accordance with EC Directives.
This surfactant does not comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

Other regulations

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for

any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.


5.1.1.c Woo

5.1.1.c Woo

MATERIAL SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

993900
Reviewed on: 22/02/2007

Printing date: 14/05/2009

1 Identification of the substance/preparation and of the company/undertaking

- .
- *Trade name:*
  5.1.1.c Woo
- Article number:
  5.1.1.c Woo
- Application of the substance / the preparation
  Surfactant (Plant protection)
- *Manufacturer/Supplier:*
  5.1.1.c Woo
- *Further information obtainable from:*
  The laboratory.
- *Information in case of emergency:*
  5.1.1.c Woo

2 Hazards identification

- ***Hazard description:***
  This product as is, is not particularly hazardous.
- ***Information concerning particular hazards for human and environment:***
  Not applicable.
- ***Classification system:***
  The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

- ***Chemical characterization***

CAS N°	***Description/Index R-phrases***
9003-11-6	***Alkoxylate***

buiten redkwijdte verzoek

4 First aid measures

- ***After inhalation:***
  Supply fresh air; consult doctor in case of complaints.
- ***After skin contact:***
  Immediately rinse with water.
  Generally the product does not irritate the skin.
- ***After eye contact:***
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- ***After swallowing:***
  If symptoms persist consult doctor.

5 Fire-fighting measures

- ***Suitable extinguishing agents:***
  CO2, powder or water spray. Fight larger fires with water spray. water spray.
- ***For safety reasons unsuitable extinguishing agents:***
  Water with full jet
- ***Special hazards caused by the substance, its products of combustion or resulting gases:***
  Formation of toxic gases is possible during heating or in case of fire.

(continued on page 2)

MATERIAL SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

993900
Reviewed on: 22/02/2007

Printing date: 14/05/2009

PRODUCT : 5.1.1.c Woo

(continued of page 1)

In case of fire, the following can be released:
Carbon monoxide (CO)
- ***Protective equipment:***
Wear self-contained respiratory protective device.

6 Accidental release measures

- ***Person-related safety precautions:***
Avoid contact with the eyes and skin.
- ***Measures for environmental protection:***
Do not allow product to reach sewage system or any water course.
- ***Measures for cleaning/collecting:***
Allow to solidify. Pick up mechanically.

7 Handling and storage

- ***Handling:***

Information for safe handling:
Provide suction extractors if dust is formed.
Avoid contact with the eyes and skin.
Wash hands before each break and after finishing work.
Information about fire - and explosion protection:
No special measures required.

- ***Storage:***
- *Requirements to be met by storerooms and receptacles:*
No special requirements.
- *Information about storage in one common storage facility:*
Not required.
- *Further information about storage conditions:*
Keep container tightly sealed.

8 Exposure controls/personal protection

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- ***Ingredients with limit values that require monitoring at the workplace:***
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- *Additional information:*
The lists valid during the making were used as basis.
Attention, the national regulation can contain more limit values than the EC regulation.

- ***Personal protective equipment:***
- *General protective and hygienic measures:*
The usual precautionary measures are to be adhered to when handling chemicals.
Avoid contact with the eyes and skin.
- *Respiratory protection: Not required.*
- *Protection of hands: Impervious gloves*
- *Eye protection: Safety glasses*
- *Body protection: Protective work clothing*

9 Physical and chemical properties

General Information	
Form:	buiten reikwijdte verzoek
Colour:	
Odour:	
Change in condition	

(continued on page 3)

MATERIAL SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

993900
Reviewed on: 22/02/2007

Printing date: 14/05/2009

PRODUCT : 5.1.1.c Woo

(continued of page 2)

Melting point/Melting range:	buiten reikwijdte verzoek
Boiling point/Boiling range:	
Pour point	
Flash point:	
Self-igniting:	
Danger of explosion:	
Density:	
Solubility in / Miscibility with water:	
pH-value:	
Viscosity:	
Dynamic:	

10 Stability and reactivity

- ***Thermal decomposition / conditions to be avoided:***
  To avoid thermal decomposition do not overheat.

- ***Materials to be avoided:***
  Dangerous reactions
  Reacts with acids, alkalis and oxidizing agents.

- ***Dangerous decomposition products:***
  No dangerous decomposition products known.

11 Toxicological information

- ***Acute toxicity:***
- *Primary irritant effect:*
- on the skin:
  No irritant effect.
- on the eye:
  No irritating effect.

- ***Additional toxicological information:***
  The substance is not subject to classification according to the latest version of the EU lists.

12 Ecological information

- ***Additional ecological information:***
- *General notes:*
  At present there are no ecotoxicological assessments. Do not allow product to reach ground water, water course or sewage system.

13 Disposal considerations

- ***Product:***
- *Recommendation*
  Must be specially treated adhering to official regulations.
  Contact manufacturer for recycling information.
  Do not empty into drains and avoid release to the environment. This product must be disposed in a certificated hazardous or special waste collection point.

- ***Uncleaned packaging:***
- *Recommendation:*
  Disposal must be made according to official regulations.

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MATERIAL SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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Reviewed on: 22/02/2007

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PRODUCT : 5.1.1.c Woo

(continued of page 3)

Packaging may be reused or recycled after cleaning.
If recycling is not possible, dispose according to the local regulations.

- *Recommended cleansing agents:*
  Water, if necessary together with cleansing agents.

14 Transport information

-
Not classified for transport

-

15 Regulatory information

- ***Labelling according to EU guidelines:***
  The substance is not subject to classification according to EU lists and other sources of literature known to us.
  Although this product is not subject to identification regulations, we recommend that the safety suggestions are observed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- ***Department issuing MSDS:***
  The laboratory.

Particular information
Alterations are indicated by asterisk *.


5.1.1.c Woo

5.1.1.c Woo

Safety Data Sheet

5.1.1.c Woo

Product Name: 5.1.1.c Woo

Revision Date: 2010/12/03
Print Date: 09 Dec 2010

5.1.1.c Woo encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

Section 1. Identification of the substance/preparation and of the company/undertaking

1.1 Product identifiers

Product Name
5.1.1.c Woo

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Multi-purpose surfactant.

1.3 Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION
5.1.1.c Woo

5.1.1.c Woo

1.4 EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact:
Local Emergency Contact: 5.1.1.c Woo

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification - REGULATION (EC) No 1272/2008
This product is not classified as dangerous according to EC criteria.
Classification according to EU Directives 67/548/EEC or 1999/45/EC

This product is not classified as dangerous according to EC criteria.

2.2 Label elements
Labelling - REGULATION (EC) No 1272/2008
This product is not classified as dangerous according to EC criteria.

2.3 Other Hazards
No information available.

Section 3. Composition/information on ingredients

3.1 Substance
This product is a substance.

CAS # / EC # / Index	REACH No.	Amount	Component	Classification: REGULATION (EC) No 1272/2008
CAS # Confidential EC # Polymer	Not subject to registration	Buiten reikwijdte verzoek	Alkoxylate##	Not classified

CAS # / EC # / Index	Amount	Component	Classification: 67/548/EEC
CAS # Confidential EC # Polymer	Buiten reikwijdte verzoek	Alkoxylate##	Not classified.

Voluntarily disclosed component(s).
For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4. First-aid measures

4.1 Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Inhalation: Move person to fresh air; if effects occur, consult a physician.
Skin Contact: Wash skin with plenty of water. Suitable emergency safety shower facility should be immediately available.
Eye Contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.
Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed
Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

4.3 Indication of immediate medical attention and special treatment needed
If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5. Fire Fighting Measures

5.1 Extinguishing Media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

5.2 Special hazards arising from the substance or mixture

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.
Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

5.3 Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.
Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Spilled material may cause a slipping hazard. Refer to Section 7, Handling, for additional precautionary measures.

6.2 Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

6.3 Methods and materials for containment and cleaning up: Contain spilled material if possible. Absorb with materials such as: Sand. Dirt. Collect in suitable and properly labeled containers. Do not use water for cleanup. See Section 13, Disposal Considerations, for additional information.

Section 7. Handling and Storage

7.1 Precautions for safe handling

Handling

General Handling: Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. Product shipped/handled hot can cause thermal burns. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

7.2 Conditions for safe storage, including any incompatibilities

Storage
No specific requirements. Additional storage and handling information on this product may be obtained by calling your sales or customer service contact. The shelf life given is for unopened containers stored under moderate temperature conditions.

Shelf life: Use within
24 Months

7.3 Specific end uses
See the technical data sheet on this product for further information.

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters

Exposure Limits

None established

8.2 Exposure controls

Personal Protection
Eye/Face Protection: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent. When handling hot material: Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. Wear a face-shield which allows use of chemical goggles, or wear a full-face respirator, to protect face and eyes when there is any likelihood of splashes.
Skin Protection: No precautions other than clean body-covering clothing should be needed. When handling hot material, protect skin from thermal burns. Selection of specific items will depend on the operation.

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized. Use gloves with insulation for thermal protection (EN 407), when needed.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.
Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls
Ventilation: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Section 9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	buiten reikwijdte verzoek
Physical State	
Color	
Odor	

Odor Threshold	buiten reikwijdte verzoek
pH	
Melting Point	
Freezing Point	
Boiling Point (760 mmHg)	
Flash Point - Closed Cup	
Evaporation Rate (Butyl Acetate = 1)	
Flammability (solid, gas)	
Flammable Limits In Air	
Vapor Pressure	
Vapor Density (air = 1)	
Specific Gravity (H2O = 1)	
Solubility in water (by weight)	
Partition coefficient, n-octanol/water (log Pow)	
Autoignition Temperature	
Decomposition Temperature	
Kinematic Viscosity	
Explosive properties	
Oxidizing properties	

9.2 Other information

Section 10. Stability and Reactivity

10.1 Reactivity
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability
Thermally stable at typical use temperatures.

10.3 Possibility of hazardous reactions
Will not occur.

10.4 Conditions to Avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

10.5 Incompatible Materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

10.6 Hazardous decomposition products
Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Alcohols. Ethers. Hydrocarbons. Ketones. Organic acids. Polymer fragments.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity
Ingestion

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.
Typical for this family of materials. Estimated. LD50, Rat > 4,000 mg/kg

Aspiration hazard
Based on physical properties, not likely to be an aspiration hazard.

Dermal
Prolonged skin contact is unlikely to result in absorption of harmful amounts.
Typical for this family of materials. LD50, Rabbit > 10,000 mg/kg

Inhalation
At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous. Vapor from heated material or mist may cause respiratory irritation. For narcotic effects: Relevant data not available.
As product: The LC50 has not been determined.

Eye damage/eye irritation
May cause slight temporary eye irritation. Corneal injury is unlikely.

Skin corrosion/irritation
Prolonged exposure not likely to cause significant skin irritation. Material may be handled at elevated temperatures; contact with heated material may cause thermal burns.

Sensitization
Skin
Relevant data not available.

Respiratory
Relevant data not available.

Repeated Dose Toxicity
For similar material(s): In animals, effects have been reported on the following organs after exposure to aerosols: Lung.

Chronic Toxicity and Carcinogenicity
Relevant data not available.

Developmental Toxicity
Relevant data not available.

Reproductive Toxicity
Relevant data not available.

Genetic Toxicology
No relevant information found.

Section 12. Ecological Information

12.1 Toxicity

Based on information for a similar material: Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

12.2 Persistence and Degradability

Based on information for a similar material: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

12.3 Bioaccumulative potential
Bioaccumulation: No relevant data found.

12.4 Mobility in soil
Mobility in soil: No relevant data found.

12.5 Results of PBT and vPvB assessment
No data available.

12.6 Other adverse effects
No data available.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water.

Section 14. Transport Information

ROAD & RAIL
NOT REGULATED

OCEAN
NOT REGULATED

AIR
NOT REGULATED

INLAND WATERWAYS
NOT REGULATED

Section 15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

European Inventory of Existing Commercial Chemical Substances (EINECS)
This product is a polymer according to the definition in Directive 92/32/EEC (7th Amendment to Directive 67/548/EEC) and all of its starting materials and intentional additives are listed in the European Inventory of Existing Commercial Chemical Substances (EINECS) or in compliance with European (EU) chemical inventory requirements.

15.2 Chemical Safety Assessment
A Chemical Safety Assessment is not required for this substance.

Section 16. Other Information

Hazard statement in the composition section

Product Literature

Additional information on this and other products may be obtained by visiting our web page. Additional information on this product may be obtained by calling your sales or customer service contact. Ask for a product brochure.

Revision

Identification Number: 5.1.1.c Woo Issue Date 2010/12/03 / Version: 1.0
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

5.1.1.c Woo *urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.*

5.1.1.c Woo

5.1.1.c Woo

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

5.1.1.c Woo

Version 2 Revision Date 24.05.2011 Print Date 24.05.2011 GB / EN

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name 5.1.1.c Woo

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Specific use(s): 5.1.1.c Woo

1.3 Details of the supplier of the safety data sheet

Company : 5.1.1.c Woo

Telephone :
Telefax :
E-mail address :

1.4 Emergency telephone number

Emergency telephone number :

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2
Eye irritation, Category 2

Classification (67/548/EEC, 1999/45/EC)

Hazard category: Irritant

Risk advice to man and the environment

Irritating to eyes and skin.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Symbol(s) :



Signal word : Warning

Hazard statements	: H315	Causes skin irritation.
	H319	Causes serious eye irritation.
Precautionary statements	: **Prevention:**	
	P264	Wash skin thoroughly after handling.
	P280	Wear protective gloves/ eye protection/ face protection.
	Response:	
	P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P321	Specific treatment (see supplemental first aid instructions on this label).
	P332 + P313	If skin irritation occurs: Get medical advice/ attention.

Labelling according to EC Directives (1999/45/EC)

Symbol(s) :



Xi Irritant

R-phrase(s)	: R36/38	Irritating to eyes and skin.
S-phrase(s)	: S22	Do not breathe dust.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S37/39	Wear suitable gloves and eye/face protection.
	S60	This material and its container must be disposed of as hazardous waste.

2.3 Other hazards

Risk of dust explosion.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous substance

Chemical Name	PBT vPvB OEL	CAS-No. EC-No. REACH No.	Classification (REGULATION (EC) No 1272/2008)	Classification (67/548/EEC)	Concentration [%]
Sulfonated aromatic polymer, sodiumsalt			Skin Irrit. 2; H315 Eye Irrit. 2; H319	Xi; R36/38	[redacted]

For the full text of the H-Statements mentioned in this Section, see Section 16.

For the full text of the R-phrases mentioned in this Section, see Section 16.

Candidate List of Substances of Very High Concern for Authorisation

Candidate List of Substances of Very High Concern for Authorisation : Neither banned nor restricted

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.

If inhaled : Remove to fresh air.
Keep patient warm and at rest.
Rinse nose and mouth with water.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Rinse immediately with plenty of water.
If skin irritation persists, call a physician.

In case of eye contact : Rinse with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
Obtain medical attention.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting / Specific hazards arising from the chemical : Do not allow run-off from fire fighting to enter drains or water courses.
Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up / Methods for containment : Pick up and arrange disposal without creating dust.
Sweep up and shovel.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Additional advice : For personal protection see section 8.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the

application area.
Dispose of rinse water in accordance with local and national regulations.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Avoid creating dust.

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.
No sparking tools should be used.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in a dry place.
Store at room temperature in the original container.
Keep container tightly closed.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end uses

Specific use(s) : No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
Dust		TWA	4 mg/m3	1997-01-01	GB EH40	Total dust

STEL: Short term exposure limit
TWA: Time Weighted Average (TWA)

8.2 Exposure controls

Engineering Controls
Provide appropriate exhaust ventilation at places where dust is formed.
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment
Respiratory protection : Half mask with a particle filter P2 (EN 143).

Hand protection : Neoprene

Nitrile rubber

Eye protection : Tightly fitting safety goggles

Skin and body protection : Protective suit

Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

Environmental exposure controls

General advice	:	Do not flush into surface water or sanitary sewer system.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance		
Form	:	buiten reikwijdte verzoek
Colour	:	
Odour	:	
Odour Threshold	:	
Safety data		
pH	:	
Melting point	:	
Boiling point	:	
Flash point	:	
Ignition temperature	:	
Evaporation rate	:	
Flammability (solid, gas)	:	
Lower explosion limit	:	
Upper explosion limit	:	
Vapour pressure	:	
Relative vapour density	:	
Relative density	:	
Solubility in other solvents	:	
Water solubility	:	
Partition coefficient: n-octanol/water	:	
Autoignition temperature	:	

Decomposition temperature	:	buiten reikwijdte verzoek
Viscosity, dynamic	:	
Viscosity, kinematic	:	
Explosive properties	:	
Oxidizing properties	:	

9.2 Other information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Chemical stability and Hazardous reactions	:	Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid	:	None known.

10.5 Incompatible materials

Materials to avoid	:	None known.

10.6 Hazardous decomposition products

Hazardous decomposition products	:	No hazardous decomposition products are known.
Thermal decomposition	:	no data available

11. TOXICOLOGICAL INFORMATION

Product information:
Hazard Summary

Skin	:	Product dust may be irritating to eyes, skin and respiratory system. May cause skin irritation in susceptible persons.
Eyes	:	Product dust may be irritating to eyes, skin and respiratory system. May cause eye irritation.
Ingestion	:	May cause irritation of the mucous membranes.

Toxicology Assessment
Further information : No further data available.

11.1 Information on toxicological effects

Test result
Acute oral toxicity : LD50: > 4,500 mg/kg
Species: rats

Toxicology data for the components:
Test result
Sulfonated aromatic polymer, sodiumsalt
Skin irritation : irritating

Eye irritation : Eye irritation

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Components:
Ecotoxicology Assessment
Sulfonated aromatic polymer, sodiumsalt
Results of PBT assessment : no data available

12.2 Persistence and degradability

Components:
Sulfonated aromatic polymer, sodiumsalt
Biodegradability : Not readily biodegradable.

12.3 Bioaccumulative potential

Components:
Sulfonated aromatic polymer, sodiumsalt
Bioaccumulation : no data available

12.4 Mobility in soil

Components:
Sulfonated aromatic polymer, sodiumsalt
Mobility : no data available

12.5 Results of PBT and vPvB assessment

Components:
Sulfonated aromatic polymer, sodiumsalt
PBT and vPvB assessment : no data available

12.6 Other adverse effects

Components:
Sulfonated aromatic polymer, sodiumsalt
Biochemical Oxygen Demand (BOD) : no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Hazardous waste
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number

ADR	:	Not dangerous goods
RID	:	Not dangerous goods
IMDG	:	Not dangerous goods
IATA	:	Not dangerous goods

14.2 Proper shipping name

ADR	:	Not dangerous goods
RID	:	Not dangerous goods
IMDG	:	Not dangerous goods
IATA	:	Not dangerous goods

14.3 Transport hazard class

ADR	:	Not dangerous goods
RID	:	Not dangerous goods
IMDG	:	Not dangerous goods
IATA	:	Not dangerous goods

14.4 Packing group

ADR	:	Not dangerous goods
RID	:	Not dangerous goods
IMDG	:	Not dangerous goods
IATA	:	Not dangerous goods

14.5 Environmental hazards

ADR	:	Not dangerous goods
RID	:	Not dangerous goods
IMDG	:	Not dangerous goods
IATA	:	Not dangerous goods

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Major Accident Hazard	:	96/82/EC	Update: 2003

Legislation		Directive 96/82/EC does not apply

Notification status

CH INV	:	y (positive listing) The formulation contains substances listed on the Swiss Inventory
US.TSCA	:	y (positive listing) All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.
DSL	:	y (positive listing) All components of this product are on the Canadian DSL list.
AICS	:	y (positive listing) On the inventory, or in compliance with the inventory
NZIoC	:	n (Negative listing) On the inventory, or in compliance with the inventory
ENCS	:	y (positive listing) On the inventory, or in compliance with the inventory
ISHL	:	n (Negative listing) Not in compliance with the inventory
KECI	:	y (positive listing) On the inventory, or in compliance with the inventory
PICCS	:	y (positive listing) On the inventory, or in compliance with the inventory
IECSC	:	y (positive listing) On the inventory, or in compliance with the inventory

For explanation of abbreviation see section 16.

Further information
This product is to be considered as a preparation according to EU-legislation.

15.2 Chemical Safety Assessment

Sulfonated aromatic polymer, sodiumsalt	:	No information available.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H315	Causes skin irritation.
H319	Causes serious eye irritation.

Full text of R-phrases referred to under sections 2 and 3

R36/38	Irritating to eyes and skin.

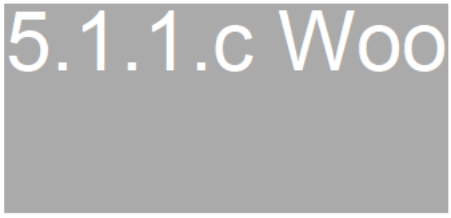
Explanations for possible abbreviations mentioned in section 2

PBT	:	PBT: Persistent, bioaccumulative and toxic.
vPvB	:	vPvB: Very persistent and very bioaccumulative.
OEL	:	OEL: Occupational exposure limit.

Notification status explanation

CH INV	Switzerland. New notified substances and declared preparations
US.TSCA	United States TSCA Inventory
DSL	Canadian Domestic Substances List (DSL)
AICS	Australia Inventory of Chemical Substances (AICS)
NZIoC	New Zealand. Inventory of Chemical Substances
ENCS	Japan. ENCS - Existing and New Chemical Substances Inventory
ISHL	Japan. ISHL - Inventory of Chemical Substances (METI)
KECI	Korea. Korean Exisiting Chemicals Inventory (KECI)
PICCS	Philippines Inventory of Chemicals and Chemical Substances (PICCS)
IECSC	China. Inventory of Existing Chemical Substances in China (IECSC)

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.


5.1.1.c Woo

SAFETY DATA SHEET

5.1.1.c Woo

5.1.1.c Woo

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : 5.1.1.c Woo

EC number : Polymer

CAS number : 68425-94-5

Product code : 00046853

Product description : Alkylated naphtalene sulfonate, formaldehyde polymer, sodium salt

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : Surfactant used in agrochemicals and other industrial uses.

1.3 Details of the supplier of the safety data sheet

Supplier : 5.1.1.c Woo

e-mail address of person responsible for this SDS :

1.4 Emergency telephone numb

Supplier

Telephone number :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : UVCB

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Classification according to Directive 67/548/EEC [DSD]

Not classified.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

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SECTION 2: Hazards identification

Supplemental label elements : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII : PBT: No.
P: No. B: No. T: No.

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : vPvB: No.
vP: No. vB: No.

Other hazards which do not result in classification : Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

SECTION 3: Composition/information on ingredients

Substance/mixture : UVCB

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts	EC: Polymer CAS: 68425-94-5		Not classified. **See section 16 for the full text of the R-phrases declared above**	Not classified. **See Section 16 for the full text of the H statements declared above.**	[*]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[*] Substance
[A] Constituent
[B] Impurity
[C] Stabilising additive

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : No specific data.

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : Symptomatic treatment and supportive therapy as indicated. Following severe exposure the patient should be kept under medical review for at least 48 hours.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical powder.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fine dust clouds may form explosive mixtures with air.

SECTION 5: Firefighting measures

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Additional information : During processing, dust may form explosive mixture in air.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DELs available.

Predicted effect concentrations

No PECs available.

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers. Additional information can be found for instance at www.gisbau.de.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state :

Colour :

Odour :

Odour threshold :

pH :

Melting point/freezing point :

Initial boiling point and boiling range :

Flash point :

Evaporation rate :

buiten reikwijdte verzoek

SECTION 9: Physical and chemical properties

Flammability (solid, gas)	: buiten reikwijdte verzoek
Burning time	:
Burning rate	:
Upper/lower flammability or explosive limits	:
Vapour pressure	:
Vapour density	:
Relative density	:
Solubility(ies)	
Water solubility	:
Other	:
Partition coefficient: n-octanol/water	:
Auto-ignition temperature	:
Decomposition temperature	:
Viscosity	:
Explosive properties	:
Oxidising properties	:
9.2 Other information	
Density	:

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.

10.5 Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Endpoint	Species	Result	Exposure
Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	2000 to 5000 mg/kg	-

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Reproductive toxicity

Teratogenicity

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Ingestion : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Eye contact : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion : No specific data.

Skin contact : No specific data.

Eye contact : Adverse symptoms may include the following:
irritation
redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

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SECTION 11: Toxicological information

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
(similar material)	-	-	Not readily

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : PBT: No.
P: No. B: No. T: No.

vPvB : vPvB: No.
vP: No. vB: No.

12.6 Other adverse effects : No known significant effects or critical hazards.

12.7 Other ecological information

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

SECTION 13: Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
07 01 99	wastes not otherwise specified

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	14.1 UN number	14.2 UN proper shipping name
ADR/RID	Not regulated.	-
ADN/ADNR	Not regulated.	-
IMDG	Not regulated.	-
IATA	Not regulated.	-

	ADR/RID	ADN/ADNR	IMDG	IATA
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user	Not available.	Not available.	Not available.	Not available.
Additional information	-	-	-	-

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Black List Chemicals : Not listed

Priority List Chemicals : Not listed

Integrated pollution prevention and control list (IPPC) - Air : Not listed

Integrated pollution prevention and control list (IPPC) - Water : Not listed

National regulations

References : The provision of Safety Data Sheets comes under Regulation 6 of CHIP (CHIP is the recognised abbreviation for the Chemicals Hazard Information and Packaging Regulations). This is an addition to the Health and Safety at Work Act 1974.

International regulations

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Date of printing	: 16 March 2011	**MSDS no.**	: 00046853
Date of issue	: **16 March 2011**	**Version**	: 1.01

SECTION 16: Other information

Full text of abbreviated H statements	: Not applicable.
Full text of classifications [CLP/GHS]	: Not applicable.
Full text of abbreviated R phrases	: Not applicable.
Full text of classifications [DSD/DPD]	: Not applicable.
MSDS no.	: 00046853
Date of printing	: 3/16/2011.
Date of issue/ Date of revision	: 3/16/2011.
Date of previous issue	: 3/15/2011.
Version	: 1.01

Notice to reader

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

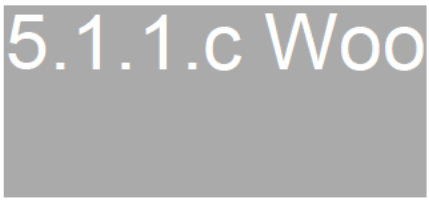
IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

5.1.1.c Woo **s a registered trademark of** 5.1.1.c Woo **or an affiliate thereof in one or more countries, but not all countries.**

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED 5.1.1.c Woo ***EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR*** 5.1.1.c Woo ***PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM*** 5.1.1.c Woo ***ALL REQUESTS FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO*** 5.1.1.c Woo ***MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.***


5.1.1.c Woo

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 15.11.2010 *Vers.no.: 3* *Revision: 15.11.2010*

*
1 Identification of the substance/preparation and of the company/undertaking

· **Product details**

· **Trade name:** 5.1.1.c Woo

5.1.1.c Woo

· **Article number:** 5.1.1.c Woo

· **Application of the substance / the preparation** Cosmetic auxiliary

· **Manufacturer/Supplier:**

5.1.1.c Woo 5.1.1.c Woo

· **Further information obtainable from:**

5.1.1.c Woo

2 Hazards identification

· **Hazard description:** Not applicable.
· **Information concerning particular hazards for human and environment:** Not applicable.
· **GHS label elements** Void

3 Composition/information on ingredients

· **Chemical characterization:**
· **CAS No. Description**
56-81-5 1,2,3-Propanetriol
· **Identification number(s)**
· **EINECS Number:** 200-289-5

4 First aid measures

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Rinse with warm water.
If skin irritation continues, consult a doctor.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Induce vomiting, if person is conscious. Seek medical help.

*
5 Fire-fighting measures

· **Suitable extinguishing agents:**
Carbon dioxide
Fire-extinguishing powder
Water spray
Foam
· **Protective equipment:**
Use protective clothing
Wear self-contained respiratory protective device.

(Contd. on page 2)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 15.11.2010 *Vers.no.: 3* *Revision: 15.11.2010*

Trade name: 5.1.1.c Woo

5.1.1.c Woo

(Contd. of page 1)

*
6 Accidental release measures

· **Person-related safety precautions:**
Wear protective clothing.
Remove persons from danger area.
Use respiratory protective device against the effects of fumes/dust/aerosol.
· **Measures for environmental protection:** Do not allow product to reach sewage system or any water course.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· **Additional information:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

*
7 Handling and storage

· **Handling:**
· **Information for safe handling:** Do not breathe vapour.
· **Information about fire - and explosion protection:** No special measures required.

· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** None.

*
8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**	
5.1.1.c Woo **PH, EUR, USP**	
WEL	Long-term value: 10 mg/m³

· **Additional information:** The lists valid during the making were used as basis.

· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.
· **Respiratory protection:** Required when vapours /aerosols are generated.
· **Protection of hands:**



Protective gloves

· **Material of gloves**
Rubber gloves
Recommended thickness of the material: approx. 0.7 mm
· **Penetration time of glove material** Time for permeation appr.480 min
· **Eye protection:**



Tightly sealed goggles

(Contd. on page 3)

Safety Data Sheet
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Trade name: 5.1.1.c Woo

5.1.1.c Woo

(Contd. of page 2)

· **Body protection:**
Protective work clothing
Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.
The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

*

9 Physical and chemical properties

· **General Information**	
Form: **Colour:** **Odour:**	buiten reikwijdte verzoek
· **Change in condition** **Melting point/Melting range:** **Boiling point/Boiling range:**	
· **Flash point:**	
· **Ignition temperature:**	
· **Danger of explosion:**	
· **Explosion limits:** **Lower:**	
· **Vapour pressure at 20°C:**	
· **Density at 20°C:**	
· **Solubility in / Miscibility with water:**	
· **Segregation coefficient (n-octanol/water**	
· **Viscosity:** **Dynamic at 20°C:**	

*

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**
thermal decomposition >290 °C
To avoid:
heat
· **Materials to be avoided:**
Oxidizing agents
Halogens
· **Dangerous reactions** *No dangerous reactions known.*
· **Dangerous decomposition products:** *No dangerous decomposition products known.*

*

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**		
Oral	*LD50*	*12600 mg/kg (rat)* *>18700 mg/kg (rabbit)*

(Contd. on page 4)

Safety Data Sheet
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(Contd. of page 3)

· ***Primary irritant effect:***
· ***on the skin:***
slightly irritant (rabbit)
Literature value
· ***on the eye:***
slightly irritant (rabbit)
Literature value
· ***Sensitization:*** *No sensitizing effects known.*

*
12 Ecological information

· ***Information about elimination (persistence and degradability):***
· ***Other information:***
>70%
DOC decrease
· ***Ecotoxical effects:***

· ***Acquatic toxicity:***	
LC50/24 h	*>5000 mg/l (carassius auratus)*
EC50/24 h	*>9999.99 mg/l (daphnia)*
EC50/16 h	*>9999.99 mg/l (pseudomonas putida)*
IC50/7 days	*>9999.99 mg/l (scenedesmus quadricaude)*
LC50	*>9999.99 mg/l ((Goldorfe (Leuciscus idus)))*

· ***Additional ecological information:***
· ***General notes:***
Water hazard class 1(VwVwS)
Do not allow product to reach ground water, water course or sewage system.

*
13 Disposal considerations

· ***Product:***
· ***Recommendation*** *Disposal must be made according to official regulations.*

· ***Uncleaned packaging:***
· ***Recommendation:***
Disposal must be made according to official regulations.
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Non contaminated packagings may be recycled.

14 Transport information

· ***ADR/RID class:*** -
· ***UN-Number:***
· ***Hazard label:*** -

· ***Maritime transport IMDG:***
· ***IMDG Class:*** -

· ***Air transport ICAO-TI and IATA-DGR:***
· ***ICAO/IATA Class:*** -

· ***UN "Model Regulation":*** -

· ***Transport/Additional information:*** *Not dangerous according to the above specifications.*

(Contd. on page 5)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 15.11.2010 Vers.no.: 3 Revision: 15.11.2010

Trade name: 5.1.1.c Woo

5.1.1.c Woo

(Contd. of page 4)

*
15 Regulatory information

· **Labelling according to EU guidelines:**
The substance is not subject to classification according to EU lists and other sources of literature known to us.
Observe the general safety regulations when handling chemicals.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Product safety
· **Contact:** 5.1.2.e Woo
· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
· **Sources** Literature value
· *** Data compared to the previous version altered.**


5.1.1.c Woo

5.1.1.c Woo

SAFETY DATA SHEET

5.1.1.c Woo

Date/Revision: 29/10/2010 Version: 10.01 Cancels and replaces version: 9.00

1 Product and company identification.

PRODUCT NAME : 5.1.1.c Woo

Use : 5.1.1.c Woo

SUPPLIER : Seller:

Name :

Address :

5.1.1.c Woo

Telephone number :

Telefax number :

E-mail :

EMERGENCY TELEPHONE NUMBER

2 Hazards identification

CLASSIFICATION

Adverse human health effects

: [*] The dust may be irritating to the respiratory system.

Environmental effects : [*] Presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with.

Physical and chemical hazards

- Fire or explosion

: Divided solid. Dust explosion possible when mixed with air.
[*] Electrostatic charges may be generated as a result of flow, stirring, etc.
[*] Electrostatic charges may build up by swirling, pneumatic transport, pouring, etc.

- Further hazards : [*] Hazardous reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: "Stability-Reactivity").

Specific hazards	:	According to EC criteria, this product is not classified as a "hazardous substance".
LABELLING		
- R phrases	:	No R phrases.
- S phrases	:	No S phrases.
- Further data	:	Contains Glyoxal. May produce an allergic reaction
- Additional phrases	:	Safety Data Sheet available on request for professional users

3 Composition / information on ingredients

>> PREPARATION

Chemical nature	:	Blend based on: Xanthan gum. CAS : 11138-66-2 EC N° :234-394-2 **[*]**
Components presenting hazards	:	**[*]** Glyoxal (CAS : 107-22-2) : <1% EC N° :203-474-9 - EC Classification : Muta. Cat. 3; R68 - Xn; R20 - Xi; R36/38 - R43 (1272/2008, Annex VI 3)

4 First-aid measures

Inhalation	:	**[*]** Move the person away from the contaminated area. Make the affected person rest. If necessary seek medical advice. Show this sheet to the doctor.
Skin contact	:	**[*]** Remove all contaminated clothing and footwear. Wash with water.
Eye contact	:	**[*]** Immediately rinse with plenty of running water for a prolonged period, (at least 15 minutes) whilst keeping the eyes wide open If irritation persists, consult a doctor. Show this sheet to the doctor.
Ingestion	:	**[*]** NEVER attempt to induce vomiting. Do not give anything to drink.
Further information	:	**[*]** Use appropriate protective equipment when treating a contaminated person. Place contaminated clothing in a sealed bag for disposal.

SAFETY DATA SHEET

5 Fire - fighting measures

Extinguishing media		
- Suitable	:	Water spray Foam Multi-purpose powders Carbon dioxide (CO2)
- Not suitable	:	Strong water jet.
Specific hazards	:	[*] Risk of a dust explosion. During combustion: Toxic gases are released.
Specific fire fighting methods	:	Do not dispose of fire-fighting water in the environment [*]
Protection of fire-fighters	:	Self-contained breathing apparatus. Boots, gloves, goggles. [*]

6 Accidental release measures

Personal precautions	:	[*] NO flames, NO sparks. Eliminate all sources of ignition. Do not breathe dust. Avoid contact with skin and eyes. Do NOT intervene without a dust mask. Personal protective equipment: [*] - appropriate gloves. - safety glasses. - suitable protective clothing. - respiratory protection device with a particle filter.
Environmental precautions	:	Avoid direct discharge into drains.
Methods for cleaning up		
- Prohibited	:	As far as possible, do NOT spray packaging which has been damaged or overturned with water.
- Recovery	:	[*] Sweep up or vacuum up the product. Collect up the product and place it in a spare container: - suitably labelled. Keep the recovered product for subsequent disposal.
- Cleaning/Decontamination	:	If necessary, wash with water following recovery. Recover the cleaning water for subsequent disposal. [*]
- Disposal	:	[*] Dispose of materials or solid residues at an authorized site.
Further information	:	The moist product may cause the floor to be slippery. [*]

SAFETY DATA SHEET

7 Handling and storage

HANDLING

Technical measures	:	[*] Dust extraction (suction). Earth the equipment.
Measures	:	[*] Prevent the build-up of electrostatic charge. Avoid the formation or spread of dust in the atmosphere. Avoid contact with hot surfaces. Avoid contact of the product with insulating materials during operations which may generate electrostatic charges
Safe handling advice	:	Avoid allowing the dust to build up. Clean regularly. [*]

STORAGE

Technical measures	:	Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. [*]
Storage conditions		
- Recommended	:	[*] Stable under normal storage conditions. Store: - the container tightly closed. - in a cool, dry area - away from any source of ignition. - away from incompatible materials.
Incompatible products	:	Strong oxidizing agents.
Packaging	:	Product must only be kept in the original packaging.
Packaging materials		
- Recommended	:	Water-resistant materials. Original packaging.

8 Exposure controls / personal protection

Engineering measures	:	Ensure good ventilation of the work station. Extraction to remove dust at its source.
Control parameters		
Exposure limit values (Human Health)		
- ACGIH Threshold Limit Values (U.S.A./A.C.G.I.H.)	:	Glyoxal (inhalable fraction and vapor): [*] TLV (TWA) : 0,1 mg/m3 .
Surveillance procedures	:	Keep the atmospheric concentration below the occupational exposure limits. [*]

Personal protective equipment

- Respiratory protection	:	If exposure is likely to exceed the occupational exposure limit : Respiratory protective device with a particle filter. [*]
- Hand protection	:	[*] Use suitable chemical-resistant protective gloves (compliant with Standard EN 374-1) The selection of gloves must take into account the extent and duration of use at the workstation. Protective gloves must be chosen according to the function of the work station: other chemicals which may be handled, physical protection necessary (resistance to cutting, puncture, heat), dexterity required.
- Eye protection	:	Safety spectacles.
- Skin and body protection	:	Protective clothing. [*]
- Selection criteria	:	[*] Personal protective equipment must be defined after risk assessment for the workstation. Protective equipment must be chosen according to current CEN standards and in cooperation with the supplier of protective equipment.
Collective emergency equipment	:	[*] Safety shower. Eye fountain.
Hygiene measures	:	[*] Frequently vacuum dust. Wash the floor frequently. Wash as often as necessary. Do NOT eat or drink in the workplace.
Further information	:	The user is responsible for monitoring the working environment in accordance with local laws and regulations. [*]

9 Physical and chemical properties

APPEARANCE		
- Physical state	:	buiten reikwijdte verzoek
- Form	:	
- Average particle size	:	
- Colour	:	
Odour	:	
pH	:	
Specific temperatures		
- Melting	:	
Decomposition temperature	:	
Flammability characteristics		

5.1.1.c Woo

SAFETY DATA SHEET

5.1.1.c Woo

buiten reikwijdte verzoek

- Flash point	:	
- Auto-ignition temperature	:	
Oxidizing properties	:	
Explosion properties		
Explosive limits in air	:	
- Lower	:	
- Upper	:	
Dust explosivity	:	
Apparent specific gravity	:	
Solubility		
- in water	:	
- in organic solvents	:	
Further information	:	

10 Stability and reactivity

Stability	:	Stable under normal conditions of use.
Hazardous reactions		
- Materials to avoid	:	- strong oxidizing agents.
- Hazardous decomposition products	:	On combustion or on thermal decomposition (pyrolysis) releases: **[*]** (Carbon oxides (CO + CO2)).

11 Toxicological information

Acute toxicity

: Data available only for some components
Xanthan gum :
LD50 ingestion (Rat) > 5000 mg/kg
Glyoxal :
LD 50 oral (Rat) : > 2000 mg/kg.
(Unpublished reports)

Acute symptoms	:	Data available only for some components
Local effects	:	Xanthan gum : (dusts) **[*]** May be irritating to the respiratory system. **[*]** (internal evaluation) **[*]**

		Not irritating to rabbits on cutaneous application. (5 % solution) Not irritating to rabbits on ocular application. (1 % solution) (Unpublished reports)
Sensitisation	:	Data available only for some components Xanthan gum : to be considered to be : [*] not sensitising on contact with skin (Guinea-pig) Glyoxal : skin sensitiser (Unpublished reports)
Repeated dose toxicity	:	[*] Data available only for some components Xanthan gum : No adverse effect has been observed in toxicity tests by repeated administration (oral route) (Dog) (Rat) (Published data).
Specific effects		
- Carcinogenicity	:	Data available only for some components Xanthan gum : Oral studies did not reveal any carcinogenic potential (Rat) [*] (Published data).
- Mutagenicity	:	No information available. [*]
- Reproductive toxicity	:	[*] Data available only for some components Xanthan gum Gomme xanthane : Fertility study (3 generations) (Rat) : no impairment of fertility has been observed No effect observed on development (Published data).

12 Ecological information

MOBILITY		
Expected behaviour of the product	:	Ultimate destination of the product : WATER.
BIODEGRADABILITY		
- Ultimate aerobic biodegradability	:	Data available only for some components : Xanthan gum (Unpublished internal reports) Glyoxal (Unpublished reports) : Readily biodegradable.
BIOACCUMULATION		
Octanol/water partition coefficient	:	[*] To be considered to be : Not bioaccumulable. (internal evaluation)
ECOTOXICITY		

Effects on the aquatic environment	:	Data available only for some components : The product does not have any known adverse effects on the aquatic organisms tested. Xanthan gum : LC 50 (Fish: Oncorhynchus mykiss) / 96h: 420 mg/l. [*] (Published data). Glyoxal : LC 50 (Fish: Leuciscus idus) / 96h: 460 mg/l. (Unpublished reports)

13 Disposal considerations

RESIDUES FROM PRODUCT		
Prohibition	:	Do not allow the product to be released into the environment. [*]
Destruction/Disposal	:	Dispose of in accordance with relevant local regulations. [*]
CONTAMINATED PACKAGING		
Prohibition	:	Do not dispose of the product at a rubbish tip. [*]
Decontamination/cleaning	:	Cleaning is not required prior to disposal.
Destruction/Disposal	:	Dispose of at an approved site. [*]
NOTE	:	The user's attention is drawn to the possible existence of local regulations regarding disposal.

14 Transport information

INTERNATIONAL REGULATIONS		
Land		
- Rail/road (RID/ADR)	:	NOT restricted.
Sea (IMO/IMDG)	:	NOT restricted.
Air (ICAO-IATA)	:	NOT restricted.
NOTE	:	The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SAFETY DATA SHEET

15 Regulatory information

EC regulations	:	Mandatory labelling of preparations not classified as hazardous : **APPLICABLE [*]**
NOTE	:	The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the Safety Data Sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16 Other information

R Phrases of § 2 & 3	:	R 20 : Harmful by inhalation. R 36/38: Irritating to eyes and skin. R 43: May cause sensitisation by skin contact. R 68: Possible risks of irreversible effects.
* Update	:	This sheet was updated (refer to the date at the top of this page). Subheadings and text which have been modified since the previous version are indicated with an asterisk (*).

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfil his obligations regarding the use of hazardous products. This information is not exhaustive. This does not exonerate the user from ensuring that legal obligations, other than those mentioned, relating to the use and storage of the product, do not exist.This is solely his responsibility.


5.1.1.c Woo

5.1.1.c Woo

SAFETY DATA SHEET

5.1.1.c Woo

Date/Revision: 29/10/2010 Version: 9.01 Cancels and replaces version: 8.00

1 Product and company identification.

PRODUCT NAME	:	5.1.1.c Woo
Use	:	5.1.1.c Woo
SUPPLIER	:	Seller:
Name	:	5.1.1.c Woo
Address	:	
Telephone number	:	
Telefax number	:	
E-mail	:	
EMERGENCY TELEPHONE NUMBER		

2 Hazards identification

CLASSIFICATION

Adverse human health effects

: No specific risk when handled in accordance with good occupational hygiene and safety practice.

Environmental effects : Presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with.

Physical and chemical hazards

- Fire or explosion :

- Further hazards : Hazardous reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: "Stability-Reactivity").

Specific hazards : According to EC criteria, this product is not classified as a "hazardous substance".

LABELLING

- R phrases : No R phrases.
- S phrases : No S phrases.

SAFETY DATA SHEET

3 Composition / information on ingredients

>> SUBSTANCE

Common chemical name	:	Xanthan gum
Further data	:	EC N° :234-394-2
CAS number	:	11138-66-2

4 First-aid measures

Inhalation	:	Not specifically applicable.
Skin contact	:	Remove all contaminated clothing and footwear. Wash with water.
Eye contact	:	Immediately rinse with plenty of running water for a prolonged period, (at least 15 minutes) whilst keeping the eyes wide open If irritation persists, consult a doctor. Show this sheet to the doctor.
Ingestion	:	NEVER attempt to induce vomiting. Do not give anything to drink.

5 Fire - fighting measures

Extinguishing media

- Suitable	:	Water spray Foam Multi-purpose powders Carbon dioxide (CO2)
- Not suitable	:	Strong water jet.
Specific hazards	:	Combustible under specific conditions. During combustion: Toxic gases are released.
Specific fire fighting methods	:	Do not dispose of fire-fighting water in the environment
Protection of fire-fighters	:	Self-contained breathing apparatus. Boots, gloves, goggles.

6 Accidental release measures

Personal precautions	:	Avoid contact with eyes and respiratory system Personal protective equipment: - appropriate gloves. - safety glasses. - suitable protective clothing. - respiratory protection device with a particle filter.
Environmental precautions	:	This product does not present any particular risk for the environment. Avoid direct discharge into drains.
Methods for cleaning up		
- Prohibited	:	As far as possible, do NOT spray packaging which has been damaged or overturned with water.
- Recovery	:	Sweep up or vacuum up the product. Collect up the product and place it in a spare container: - suitably labelled. Keep the recovered product for subsequent disposal.
- Cleaning/Decontamination	:	If necessary, wash with water following recovery. Recover the cleaning water for subsequent disposal.
- Disposal	:	Dispose of materials or solid residues at an authorized site.
Further information	:	The moist product may cause the floor to be slippery.

7 Handling and storage

HANDLING		
Technical measures	:	Does not require any specific or particular measures.
Measures	:	Avoid the formation or spread of dust in the atmosphere.
Safe handling advice	:	Handle and use in accordance with good occupational hygiene and safety practice.
STORAGE		
Technical measures	:	Does not require any specific or particular technical measures.
Storage conditions		
- Recommended	:	Stable under normal storage conditions. Store: - the container tightly closed. - in a cool, dry area - away from any source of ignition. - away from incompatible materials.
Incompatible products	:	Strong oxidizing agents.

Packaging	:	Product must only be kept in the original packaging.
Packaging materials		
- Recommended	:	Water-resistant materials. Original packaging.

8 Exposure controls / personal protection

Engineering measures	:	Ensure good ventilation of the work station.
Control parameters		
Exposure limit values (Human Health)		
- Occupational exposure limit values (France)	:	No specific limits.
- ACGIH Threshold Limit Values (U.S.A./A.C.G.I.H.)	:	No specific limits.
Personal protective equipment		
- Respiratory protection	:	If dust is generated: Respiratory protective device with a particle filter.
- Hand protection	:	Use suitable chemical-resistant protective gloves (compliant with Standard EN 374-1) The selection of gloves must take into account the extent and duration of use at the workstation. Protective gloves must be chosen according to the function of the work station: other chemicals which may be handled, physical protection necessary (resistance to cutting, puncture, heat), dexterity required.
- Eye protection	:	Safety spectacles.
- Skin and body protection	:	Protective clothing.
- Selection criteria	:	Personal protective equipment must be defined after risk assessment for the workstation. Protective equipment must be chosen according to current CEN standards and in cooperation with the supplier of protective equipment.
Collective emergency equipment	:	Safety shower. Eye fountain.
Hygiene measures	:	Wash as often as necessary. Do NOT eat or drink in the workplace.

9 Physical and chemical properties

APPEARANCE		buiten reikwijdte verzoek
- Physical state	:	
- Form	:	
- Average particle size	:	
- Colour	:	
Odour	:	
pH	:	
Specific temperatures		
- Melting	:	
Decomposition temperature	:	
Flammability characteristics		
- Flash point	:	
- Auto-ignition temperature	:	
Oxidizing properties	:	
Explosion properties		
Explosive limits in air	:	
- Lower	:	
- Upper	:	
Dust explosivity	:	
Apparent specific gravity	:	
Solubility		
- in water	:	
- in organic solvents	:	
Further information	:	

10 Stability and reactivity

Stability	:	Stable under normal conditions of use.
Hazardous reactions		
- Conditions to avoid	:	Dust is produced on abrasion which may cause an explosion.
- Materials to avoid	:	- strong oxidizing agents.
- Hazardous decomposition products	:	On combustion or on thermal decomposition (pyrolysis) releases: (Carbon oxides (CO + CO2)).

SAFETY DATA SHEET

11 Toxicological information

Acute toxicity

: LD50 ingestion (Rat) > 5000 mg/kg
(Unpublished reports)

Local effects

: Not irritating to rabbits on cutaneous application. (5 % solution)
Not irritating to rabbits on ocular application. (1 % solution)
(Unpublished reports)

Sensitisation : to be considered to be :
not sensitising on contact with skin (Guinea-pig)
(Unpublished reports)

Repeated dose toxicity : No adverse effect has been observed in toxicity tests by repeated administration on ingestion (Rat) (Dog)
(Published data).

Specific effects

- Carcinogenicity : Oral studies did not reveal any carcinogenic potential (Rat)
(Published data).
- Mutagenicity : No information available.
- Reproductive toxicity : Fertility study (3 generations) (Rat) :
no impairment of fertility has been observed
No effect observed on development
(Published data).

12 Ecological information

MOBILITY

Expected behaviour of the product : Ultimate destination of the product : WATER.

BIODEGRADABILITY

- Ultimate aerobic biodegradability : Readily biodegradable.
(Unpublished internal reports)

BIOACCUMULATION

Octanol/water partition coefficient : To be considered to be : Not bioaccumulable.
(internal evaluation)

ECOTOXICITY

Effects on the aquatic environment : The product does not have any known adverse effects on the aquatic organisms tested.
LC 50 (Fish: Oncorhynchus mykiss) / 96h: 420 mg/l.
(Published data).

13 Disposal considerations

RESIDUES FROM PRODUCT		
Prohibition	:	Do not allow the product to be released into the environment.
Destruction/Disposal	:	Dispose of in accordance with relevant local regulations.
CONTAMINATED PACKAGING		
Prohibition	:	Do not dispose of the product at a rubbish tip.
Decontamination/cleaning	:	Cleaning is not required prior to disposal.
Destruction/Disposal	:	Dispose of at an approved site.
NOTE	:	The user's attention is drawn to the possible existence of local regulations regarding disposal.

14 Transport information

INTERNATIONAL REGULATIONS		
Land		
- Rail/road (RID/ADR)	:	NOT restricted.
Sea (IMO/IMDG)	:	NOT restricted. Marine pollutant: NO.
Air (ICAO-IATA)	:	NOT restricted.
NOTE	:	The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

15 Regulatory information

EC regulations	:	Mandatory labelling (self-classification) of hazardous substances: **NOT APPLICABLE**
NOTE	:	The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the Safety Data Sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

SAFETY DATA SHEET

16 Other information

* Update	:	This sheet was updated (refer to the date at the top of this page). Subheadings and text which have been modified since the previous version are indicated with an asterisk (*).

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfil his obligations regarding the use of hazardous products. This information is not exhaustive. This does not exonerate the user from ensuring that legal obligations, other than those mentioned, relating to the use and storage of the product, do not exist.This is solely his responsibility.


5.1.1.c Woo

5.1.1.c Woo

Safety Data Sheet

According to (EC) No 1907/2006 (REACH)
(EU) No 453/2010

Revision Date: 02/Mar/2011 **Revision Number:** 1.1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name: 5.1.1.c Woo

Chemical Name Mixture - Xanthan Gum , glyoxal

Product Use 5.1.1.c Woo

Specific End Uses Concrete and Cement Additive, Firefighting foams, Household cleaners

Company 5.1.1.c Woo

Emergency Telephone Number

Internet

Email

2. HAZARDS IDENTIFICATION

CLASSIFICATION: EC 1272/2008: Not Classified
EC 67/548: Not Classified

Label Element(s): None

Signal Word(s) None

Xanthan gum
CAS: 11138-66-2

Avoid dust formation.
Keep away from heat, flame sparks and other ignition sources.

Glyoxal
CAS: 107-22-2

Contains glyoxal
May produce an allergic reaction

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT(S)	EC / REACH	EU CLP Classification	%W/W
Xanthan gum CAS: 11138-66-2	234-394-2 Exempt	Not classified	buiten reikwijdte verzoek

Glyoxal CAS: 107-22-2	203-474-9 *	Eye Irritation 2; Skin Irritant 2; Acute Toxicity 4: Mutagenicity 2; Skin Sensitiser 1; H315; H317; H319; H332; H341 M3;R68, Xn;R20, Xi;R36/38, R43	buiten reikwijdte verzoek

Xanthan gum - CAS: 11138-66-2

Regulation (EC) 1907/2006: REACH
Exempt as a naturally occurring polymer.

Glyoxal - CAS: 107-22-2

Regulation (EC) 1907/2006: REACH
*Registered with an OR for import to EU
*Pre-Registered under REACh

4. FIRST AID MEASURES

General Advice: Remove material from eyes, skin and clothing.
In case of doubt or when symptoms persist, seek medical attention.
Wash heavily contaminated clothing before reuse.

Eye contact Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes. If eye irritation persists, seek medical attention.

Skin contact Wash off with soap and plenty of water.

Ingestion No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

Inhalation Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

5. FIRE-FIGHTING MEASURES

General Advice Treat as "Class A" fire. Product will burn when in contact with a flame. Self extinguishes when ignition source is removed. Tends to smoulder.

Suitable Extinguishing Media Water
Dry chemical
Carbon dioxide (CO2)

Unsuitable Extinguishing Media None

Hazardous Combustion Products Carbon dioxide
Carbon monoxide

Dust Explosion Hazard Can contain sufficient fines to cause a combustible dust explosion. Do not breathe smoke, gases or vapors generated.

Special Protective Equipment for Firefighters In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wet material on walking surfaces will be extremely slippery. Avoid dust formation. In case of exposure to high levels of airborne dust, wear a personal respirator in compliance with national legislation.
Environmental Precautions	Not expected to cause an environmental hazard a a result of its intended use, disposal, or incineration.
Methods for Cleaning up	Use vacuum equipment designed specifically for combustible dust. Take precautionary measures against static discharges. The use of water wash down is not recommended unless the spilled material is already wet. Disposal information - Refer to Section 13
Other Information	Personal protection equipment (PPE) - Refer to Section 8. Disposal - Refer to Section 13.

7. HANDLING AND STORAGE

Handling	Avoid dust formation. Provide appropriate exhaust ventilation in places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid conditions that generate airborne dust in handling, transfer and clean up. Product may form combustible dust-air mixtures. Keep away from heat, flame sparks and other ignition sources. Avoid emptying package in or near flammable vapors. Static charges may cause flash fire. Remove material from eyes, skin and clothing.
Storage	Store in a roofed and well ventilated area in the unopened original package.
Specific End Uses	Concrete and Cement Additive, Firefighting foams, Household cleaners

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Controls

Engineering Controls	Ventilation: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits in this section. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

Personal Protective Equipment

Eye Protection	Protect eyes from exposure. EU: P2 half masks Have eye flushing equipment available.
Skin and Body Protection	Wear appropriate protective clothing. Wash thoroughly after handling. Launder contaminated clothing and clean protective equipment before reuse.
Hand Protection	Gloves are recommended if extended exposure is anticipated. EN 420
Respiratory Protection	If handling generates dust levels which cause irritation, or results in personal exposure exceeding the Occupational Exposure Standard (OES) of 10 mg M-3 (8 hr TWA reference period) for total inhalable dust, then suitable approved dust respirator should be used. Personal exposure to dust should ideally be controlled to the lowest level possible below the OES. If handling generates dust levels which cause irritation, or results in personal exposure exceeding the Occupational Exposure Standard (OES) of 10 mg M-3 (8 hr TWA reference period) for total inhalable dust, then suitable approved dust respirator should be used. Personal exposure to dust should ideally be controlled to the lowest level possible below the OES. EN 149
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

Control Parameters

Exposure Limit Values:

Xanthan gum - CAS: 11138-66-2

Exposure limits
Not established.

Glyoxal - CAS: 107-22-2

Belgium - OELs - TWA
0.1 mg/m^3
Denmark - OELs - Ceilings
0.2 ppm Ceiling
0.5 mg/m^3 Ceiling
0.2 ppm Ceiling
Finland - OELs - TWAs
0.02 mg/m^3

9. PHYSICAL AND CHEMICAL PROPERTIES

buiten reikwijdte verzoek

Appearance

Physical State

Odor

Odor Threshold

pH

Melting Point / Range

Boiling Point

Freeze Point

Flash Point

Evaporation Rate

Flammability

Vapor Pressure:

Vapor Density

Water Solubility

Autoignition Temperature

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions. Hazardous polymerization does not occur.
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Avoid dust formation.
Materials to avoid (Incompatible Materials)	Strong oxidizing agents
Hazardous Decomposition Products	Thermal decomposition products: Carbon monoxide Carbon dioxide (CO2)

11. TOXICOLOGICAL INFORMATION

Toxicological Data Sources Data from laboratory studies conducted by 5.1.1.c Woo and/or from the scientific literature on components are summarized below

Xanthan gum - CAS: 11138-66-2

LD50 Oral	>5000 mg/kg (rat)
Chronic Effects	No adverse effects observed in long-term feeding studies with rats (up to 1,000 mg/kg/day)
Allergy	No skin allergy observed in guinea pig following repeated skin exposure
Irritation	Non-irritating Skin (rabbit) Non-Irritating Eye (rabbit)
Reproductive Effects	No adverse effects were observed in a 3-generation reproduction study with rats (up to 500 mg/kg/day)

Glyoxal - CAS: 107-22-2

LD50 Oral	3000 mg/kg (rat)

Sensitization	May cause sensitization of susceptible persons
Eyes	Dry powder may cause foreign body irritation in some individuals.
Skin	Prolonged contact with the dry powder may cause drying or chapping.
Inhalation	Hygroscopic properties of the gum can form a paste or gel in the airway. Inhalation of dust may cause respiratory tract irritation. Excessive inhalation of dust may cause coughing and sneezing.
Ingestion	Not toxic if swallowed (less than a mouthful) based on available information.

12. ECOLOGICAL INFORMATION

Aquatic toxicity	This product is not expected to pose an ecological hazard as a result of its intended use.
Ecotoxicity	Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.
Persistence / Degradability	This product is biodegradable.
Bioaccumulative Potential	Inherently biodegradable.
Mobility	Soluble
Potential environmental effects	Contains no substances known to be hazardous to the environment
Other Adverse Effects	None known.

Xanthan gum - CAS: 11138-66-2

96-Hour LC50	Rainbow trout: 490 mg/L.
48-Hour EC50	Daphnia magna: 980 mg/L
BOD	BOD = ~200 mg O2/gram
COD	COD = ~1600 mg O2/gram
Germany - Water Classification (VwVwS) - Annex 3	5156 : 1

Glyoxal - CAS: 107-22-2

Germany - Water Classification (VwVwS) - Annex 2	1130 : 1

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS: Dispose in accordance with local, state and national regulations.

Xanthan gum - CAS: 11138-66-2

European Waste Catalogue (EWC):
160306

14. TRANSPORT INFORMATION

UN-No	None.
Proper Shipping Name	Refer to Sections 1 and 3 for product name and chemical name(s)
IMO / IMDG	Not hazardous
ICAO / IATA	Not hazardous
RID/ADR	Not a dangerous substance.
D.O.T. Hazard Classification	Non-hazardous material.
General Information	The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.
Other information	Environmental hazards: None known Special precautions for user: Refer to Sections 2, 7, 8, 9, 10

15. REGULATORY INFORMATION

Health Safety and Environmental regulations / legislation for the substance or mixture

Component(s) of the product are on the following Inventory lists:

COMPONENT(S)	EC / REACH	Australia (AICS)	Canada	China (IECSC)	Japan	Korea (KECL)	New Zealand (NZIoC)	Philippines (PICCS)	USA (TSCA)	Taiwan (ECN)
Xanthan gum - CAS: 11138-66-2	234-394-2 Exempt	Present	Present (DSL)	Present	(8)-535 (ENCS)	KE-35422	Present	Present	Present	Nominated
Glyoxal - CAS: 107-22-2	203-474-9 *	Present	Present (DSL)	Present	(2)-510 (ENCS) (2)-509 (ENCS) (2)-510 (ENCS)	KE-27447	Present	Present	Present	-

Legend
PRESENT : Listed
- : Not Listed
Exempt
Present
Nominated

Xanthan gum - CAS: 11138-66-2

Regulation (EC) 1907/2006: REACH
Exempt as a naturally occurring polymer.

Glyoxal - CAS: 107-22-2

Regulation (EC) 1907/2006: REACH
*Registered with an OR for import to EU
*Pre-Registered under REACh

16. OTHER INFORMATION

Prepared by 5.1.2.e Woo

Glyoxal
CAS: 107-22-2

Risk phrases	R68 - Possible risks of irreversible effects. R20 - Harmful by inhalation. R43 - May cause sensitization by skin contact.
Risk combination phrases	R36/38 - Irritating to eyes and skin.
Health	H315: Causes skin irritation H317: May cause an allergic skin reaction H319: Causes serious eye irritation H332: Harmful if inhaled H341: Suspected of causing genetic defects M3: Mutagenicity, Category 3. Chemicals that produce or increase the incidence of non-heritable effects in progeny and/or an impairment in reproductive functions or capacity. Xn: Substances and preparations which may cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin. Xi: Non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, may cause inflammation.

Health	May produce an allergic reaction
Recommended restrictions	This product is not for food or food contact use.

Acronym / Abbreviation	ACRONYMS: INTERNATIONAL: ADR: International Carriage of Dangerous Goods by Road BOD: Biochemical Oxygen Demand CLP: Classification, Labeling and Packaging COD: Chemical Oxygen Demand D.O.T.: U.S. Department of Transportation ICAO International Civil Aviation Organization IATA: International Air Transport Association (IATA) IMO::International Maritime Organization. MDG::International Maritime Dangerous Goods OES: Occupational Exposure Standard OR: EU REACH Only Representative PPE: Personal protection equipment RID: International Carriage by Rail TLV-STEL: Threshold Limit Values - Short Term Exposure Limits TWA: Time Weighted Averages North America: CERCLA RQ: US EPAComprehensive Environmental, Response, and Liability Act Reportable Quantity CERCLA: US EPA Comprehensive Environmental Response, Compensation, and Liability Act of 1980 CONEG: Conference of North Eastern Governors NIOSH/MSHA - National Institute for Occupational Safety and Health/Mine Safety and Health Administration SARA: Superfund Amendments and Reauthorization Act (US EPA) TDG: Canada Transport of Dangerous Goods WHMIS: Canada's Workplace Hazardous Materials Information System
Training Advice	Personnel handling the substance(s) named in this Safety Data Sheet should be skilled and trained in areas associated with the key points named herein. Personnel should have training and access to appropriate PPE for handling this product. The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and suffcient for the product's intended purpose. If additional information is required, please contact the supplier or an expert.
Sources of key data	Literature data and/or investigative reports are available through the manufacturer.
Reason for version	Regulation (EC) 1907/2006: REACH (EU) No 453/2010

Disclaimer: The information contained in this Safety Data Sheet to the best of 5.1.1.c Woo knowledge and belief as of the date indicated is believed to be accurate and reliable. However, no representation, warranty or guarantee is implied or expressed regarding the accuracy, reliability or completeness of this information or the use of the product. Nothing contained herein should be construed as a recommendation to use this product in conflict with National or local regulations or existing patents covering any material or its use. In case of dispute, the English text governs.

END OF SAFETY DATA SHEET


5.1.1.c Woo

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006	
Revision: 12.02 EU (EN)	Issuing date: 01.06.2011

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name
Product name : Xanthan gum
CAS-No. : 11138-66-2

Relevant identified uses of the substance or mixture and uses advised against

Uses of the Substance/Mixture : Specific use(s):

Details of the supplier of the safety data sheet

Company :

Emergency telephone number :

E-mail address :

2. HAZARDS IDENTIFICATION

Classification

Classification (REGULATION (EC) No 1272/2008)

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008.

Classification (67/548/EEC,1999/45/EC)

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Label elements

REGULATION (EC) No 1272/2008

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008.

Other hazards which do not result in classification

The dust may be irritating to the respiratory system.
Divided solid. May form explosive dust-air mixture. Electrostatic charges may be generated as a result of flow, stirring, etc. Electrostatic charges may build up by swirling, pneumatic transport, pouring, etc. Hazardous reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: "Stability-Reactivity").

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	:	Xanthan gum

Substance

Chemical nature	:	Xanthan gum
CAS-No.	:	11138-66-2
EINECS-No.	:	234-394-2
Remarks	:	No dangerous ingredients according to Regulation (EC) No. 1907/2006

4. FIRST AID MEASURES

Description of necessary first-aid measures

General advice	:	Show this safety data sheet to the doctor in attendance. First aider needs to protect himself. Place affected clothing in a sealed bag for subsequent decontamination.
Inhalation	:	If inhaled, remove to fresh air. Consult a physician if necessary.
Skin contact	:	Take off contaminated clothing and shoes immediately. Wash off with plenty of water.
Eye contact	:	Rinse with running water whilst keeping the eyes wide open (at least 15 minutes) If eye irritation persists, consult a physician
Ingestion	:	Do NOT induce vomiting. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	:	Water spray Foam Multi-purpose powders Carbon dioxide (CO2)

Unsuitable extinguishing media	:	High volume water jet

Special hazards arising from the substance or mixture

Specific hazards during fire fighting	:	Risk of dust explosion. On combustion, toxic gases are released.

Advice for firefighters

Special protective equipment for fire-fighters	:	Wear self contained breathing apparatus for fire fighting if necessary. Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
Specific fire fighting methods	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Remove all sources of ignition. Do not breathe dust. Avoid contact with the skin and the eyes. Personal protective equipment Wear suitable protective equipment. Respirator with a particle filter (EN 143) Tightly fitting safety goggles Wear suitable gloves.
Environmental precautions	:	No special environmental precautions required.
Methods for Cleaning or Taking Up		
Prohibition	:	As far as possible, do NOT spray packaging which has been damaged or overturned with water.
Recovery	:	Shovel or sweep up. Keep in suitable, closed containers for disposal.
Decontamination/cleaning	:	Wash off with plenty of water.
Disposal	:	Dispose of in accordance with local regulations.
Additional advice	:	Forms slippery/greasy layers with water.

7. HANDLING AND STORAGE

Handling

Technical measures	:	Provide sufficient air exchange and/or exhaust in work rooms. Earth the equipment.
Advice on safe handling and usage	:	Prevent the build-up of electrostatic charge. Avoid dust formation. Keep away from fire, sparks and heated surfaces. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Handle in accordance with good industrial hygiene and safety practice.
Dust explosion class	:	St1

Storage

Technical Measures for storage	:	No special storage conditions required.
Storage conditions		
Recommended	:	Stable under normal conditions. Keep in a cool, well-ventilated place. Protect from moisture. Keep away from open flames, hot surfaces and sources of ignition. Keep away from incompatible materials to be indicated by the manufacturer
Incompatible products	:	Strong oxidizing agents
Packaging Measures		
Packaging materials - Recommended	:	Water-resistant materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Control measures

Engineering measures	:	Effective exhaust ventilation system

Personal protective equipment

Respiratory protection	:	Use a respirator with an approved filter if a risk assessment indicates this is necessary.
Hand protection	:	Where there is a risk of contact with hands, use appropriate gloves The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves must be inspected prior to use.
Eye protection	:	Goggles

Skin and body protection	:	Protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	Ensure that eyewash stations and safety showers are close to the workstation location. Regular cleaning of equipment, work area and clothing. Use clean, well-maintained personal protection equipment. When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday.
Protective measures	:	The protective equipment must be selected in accordance with current CEN standards and in cooperation with the supplier of the protective equipment. Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and/or risks that may occur during use.
General advice	:	No special environmental precautions required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	:	buiten reikwijdte verzoek
Physical state	:	
Colour	:	
Odour	:	
Odour Threshold	:	
Particle size	:	

Safety data

pH	:	
Melting point/range	:	
Boiling point/boiling range	:	
Flash point	:	
Flammability (solid, gas)	:	
Autoignition temperature	:	
Oxidizing properties	:	

Water solubility	:	buiten reikwijdte verzoek
Solubility in other solvents	:	
Partition coefficient: n-octanol/water	:	
Vapour pressure	:	
Evaporation rate	:	
Relative vapour density	:	
Density	:	
Bulk density	:	
Oxidation/Reduction Potential	:	
Viscosity, dynamic	:	
Viscosity, kinematic	:	
Explosive properties	:	
Thermal decomposition	:	
Minimum ignition concentration	:	
Minimum ignition energy	:	
Lower explosion limit	:	
Upper explosion limit	:	

10. STABILITY AND REACTIVITY

Chemical stability	:	Stable under normal conditions.
Hazardous reactions		
Materials to avoid	:	Strong oxidizing agents
Decomposition products	:	On combustion or on thermal decomposition (pyrolysis) releases: (Carbon oxides (CO + CO2)).

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity	:	LD50 : > 5.000 mg/kg - rat Unpublished reports
Acute inhalation toxicity	:	no data available
Acute dermal toxicity	:	no data available
Acute toxicity (other routes of administration)	:	no data available
Aspiration toxicity	:	no data available

Skin corrosion/irritation

Skin irritation	:	Not irritating to rabbits on cutaneous application. Diluted product Unpublished reports

Serious eye damage/eye irritation

Eye irritation	:	Not irritating to rabbits on ocular application. Diluted product Unpublished reports

Respiratory or skin sensitization

Sensitisation	:	guinea pig Not classified as sensitising by skin contact Unpublished reports

Repeated dose toxicity

Repeated dose toxicity	:	Oral exposure - rat No adverse effect has been observed in toxicity tests by repeated administration Published data Oral exposure - dog No adverse effect has been observed in toxicity tests by repeated administration Published data

STOT

STOT - single exposure	:	no data available
STOT - repeated exposure	:	no data available

Carcinogenicity

Carcinogenicity	:	rat Oral exposure Animal testing did not show any carcinogenic effects. Published data

Mutagenicity

Genotoxicity in vitro	:	No information available.
Genotoxicity in vivo	:	No information available.

Reproductive toxicity

Reproductive toxicity	:	Fertility study 3 generations - rat no impairment of fertility has been observed No effect observed on development Published data

Experience with human exposure

Experience with human exposure : Inhalation	:	May cause respiratory irritation. Dust internal evaluation

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic Compartment (including sediment)

Toxicity to fish	:	LC50 - 96 h : 420 mg/l - Oncorhynchus mykiss (rainbow trout) Published data

Ecotoxicity assessment

Ecotoxicity assessment	:	The product does not have any known adverse effects on the aquatic organisms tested

Persistence and degradability

Biodegradability

Biodegradability	:	Ultimate aerobic biodegradability Readily biodegradable Unpublished internal reports

Bioaccumulation

Partition coefficient: n-octanol/water	:	Not potentially bioaccumulable internal evaluation

Mobility

Known distribution to environmental compartments	:	Ultimate destination of the product : Water

13. DISPOSAL CONSIDERATIONS

Product Disposal

Prohibition	:	Should not be released into the environment.
Advice on Disposal	:	Dispose of in accordance with local regulations.

Advice on cleaning and disposal of packaging

Measures for waste avoidance.	:	Do not dispose of the product at a rubbish tip.
Advice	:	Cleaning is not required prior to disposal.
Reason for waste disposal	:	Dispose of contents/ container to an approved waste disposal plant.
Other data	:	Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

ADR
not regulated

RID
not regulated

IMDG
not regulated

IATA
not regulated

ADN / ADNR
not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

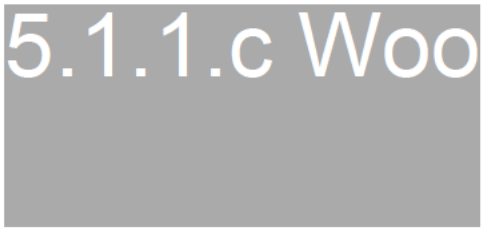
15. REGULATORY INFORMATION

According to our knowledge, no specific regulatory information.

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in an other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).


5.1.1.c Woo

5.1.1.c Woo

SAFETY DATA SHEET

5.1.1.c Woo

Date/Revision: 19/03/2010 Version: 10 Cancels and replaces version: 9.00

1 Product and company identification.

PRODUCT NAME : 5.1.1.c Woo

Use : 5.1.1.c Woo

SUPPLIER : Seller:

Name :

Address :

Telephone number :

Telefax number :

E-mail :

EMERGENCY TELEPHONE NUMBER

5.1.1.c Woo

2 Hazards identification

MOST IMPORTANT HAZARDS

Adverse human health effects : The dust may be irritating to the respiratory system.

Environmental effects : Presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with.

Physical and chemical hazards

- Fire or explosion : Divided solid. Dust explosion possible when mixed with air. Electrostatic charges may be generated as a result of flow, stirring, etc.
Electrostatic charges may build up by swirling, pneumatic transport, pouring, etc.

- Further hazards : Hazardous reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: "Stability-Reactivity").

Specific hazards : According to EC criteria, this product is not classified as a "hazardous substance".

SAFETY DATA SHEET

3 Composition / information on ingredients

>> SUBSTANCE

Common chemical name	:	Xanthan gum
Further data	:	EC N° :234-394-2
CAS number	:	11138-66-2

4 First-aid measures

Inhalation	:	Move the person away from the contaminated area. Make the affected person rest. If necessary seek medical advice. Show this sheet to the doctor.
Skin contact	:	Remove all contaminated clothing and footwear. Wash with water.
Eye contact	:	Immediately rinse with plenty of running water for a prolonged period, (at least 15 minutes) whilst keeping the eyes wide open If irritation persists, consult a doctor. Show this sheet to the doctor.
Ingestion	:	NEVER attempt to induce vomiting. Do not give anything to drink.

5 Fire - fighting measures

Extinguishing media

- Suitable	:	Water spray Foam Multi-purpose powders Carbon dioxide (CO2)
- Not suitable	:	Strong water jet.
Specific hazards	:	Risk of a dust explosion. During combustion: Toxic gases are released.
Specific fire fighting methods	:	Do not dispose of fire-fighting water in the environment
Protection of fire-fighters	:	Self-contained breathing apparatus. Boots, gloves, goggles.

6 Accidental release measures

Personal precautions	:	NO flames, NO sparks. Eliminate all sources of ignition. Do not breathe dust. Avoid contact with skin and eyes. Do NOT intervene without a dust mask. Personal protective equipment: - appropriate gloves. - safety glasses. - suitable protective clothing. - respiratory protection device with a particle filter.
Environmental precautions	:	This product does not present any particular risk for the environment. Avoid direct discharge into drains.
Methods for cleaning up		
- Prohibited	:	As far as possible, do NOT spray packaging which has been damaged or overturned with water.
- Recovery	:	Sweep up or vacuum up the product. Collect up the product and place it in a spare container: - suitably labelled. Keep the recovered product for subsequent disposal.
- Cleaning/Decontamination	:	If necessary, wash with water following recovery. Recover the cleaning water for subsequent disposal.
- Disposal	:	Dispose of materials or solid residues at an authorized site.
Further information	:	The moist product may cause the floor to be slippery.

7 Handling and storage

HANDLING		
Technical measures	:	Dust extraction (suction). Earth the equipment.
Measures	:	Prevent the build-up of electrostatic charge. Avoid the formation or spread of dust in the atmosphere. Avoid contact with hot surfaces. Avoid contact of the product with insulating materials during operations which may generate electrostatic charges
Safe handling advice	:	Avoid allowing the dust to build up. Clean regularly.
STORAGE		
Technical measures	:	Does not require any specific or particular technical measures.

Storage conditions		
- Recommended	:	Stable under normal storage conditions. Store: - the container tightly closed. - in a cool, dry area - away from any source of ignition. - away from incompatible materials.
Incompatible products	:	Strong oxidizing agents.
Packaging	:	Product must only be kept in the original packaging.
Packaging materials		
- Recommended	:	Water-resistant materials. Original packaging.

8 Exposure controls / personal protection

Engineering measures	:	Ensure good ventilation of the work station. Extraction to remove dust at its source.
Control parameters Exposure limit values (Human Health)		
- Occupational exposure limit values (France)	:	No specific limits. Dusts, Non specific Inhalable dust - VME: 10 mg/m3. Respirable dust - VME: 5 mg/m3.
- ACGIH Threshold Limit Values (U.S.A./A.C.G.I.H.)	:	No specific limits. Inhalable Particles - TLV (TWA) : 10 mg/m3. Respirable Particles - TLV (TWA) : 3 mg/m3 .
Surveillance procedures	:	Keep the atmospheric concentration below the occupational exposure limits.
Personal protective equipment		
- Respiratory protection	:	If exposure is likely to exceed the occupational exposure limit : Respiratory protective device with a particle filter.
- Hand protection	:	Use suitable chemical-resistant protective gloves (compliant with Standard EN 374-1) The selection of gloves must take into account the extent and duration of use at the workstation. Protective gloves must be chosen according to the function of the work station: other chemicals which may be handled, physical protection necessary (resistance to cutting, puncture, heat), dexterity required.
- Eye protection	:	Safety spectacles.
- Skin and body protection	:	Protective clothing.
- Selection criteria	:	

		Personal protective equipment must be defined after risk assessment for the workstation. Protective equipment must be chosen according to current CEN standards and in cooperation with the supplier of protective equipment.
Collective emergency equipment	:	Safety shower. Eye fountain.
Hygiene measures	:	Frequently vacuum dust. Wash the floor frequently. Wash as often as necessary. Do NOT eat or drink in the workplace.
Further information	:	The user is responsible for monitoring the working environment in accordance with local laws and regulations.

9 Physical and chemical properties

APPEARANCE		buiten reikwijdte verzoek
- Physical state	:	
- Form	:	
- Average particle size	:	
- Colour	:	
Odour	:	
pH	:	
Specific temperatures		
- Melting	:	
Decomposition temperature	:	
Flammability characteristics		
- Flash point	:	
- Auto-ignition temperature	:	
Oxidizing properties	:	
Explosion properties		
Explosive limits in air	:	
- Lower	:	
- Upper	:	
Dust explosivity	:	
Apparent specific gravity	:	

5.1.1.c Woo

SAFETY DATA SHEET

Solubility		
- in water	:	buiten reikwijdte verzoek
- in organic solvents	:	
Further information	:	

10 Stability and reactivity

Stability	:	Stable under normal conditions of use.
Hazardous reactions		
- Materials to avoid	:	- strong oxidizing agents.
- Hazardous decomposition products	:	On combustion or on thermal decomposition (pyrolysis) releases: (Carbon oxides (CO + CO2)).

11 Toxicological information

Acute toxicity		
	:	LD50 ingestion (Rat) > 5000 mg/kg (Unpublished reports)
Local effects	:	(dusts) May be irritating to the respiratory system. (internal evaluation) Not irritating to rabbits on cutaneous application. (5 % solution) Not irritating to rabbits on ocular application. (1 % solution) (Unpublished reports)
Sensitisation	:	to be considered to be : not sensitising on contact with skin (Guinea-pig) (Unpublished reports)
Repeated dose toxicity	:	No adverse effect has been observed in toxicity tests by repeated administration on ingestion (Rat) (Dog) (Published data).
Specific effects		
- Carcinogenicity	:	Oral studies did not reveal any carcinogenic potential (Rat) (Published data).
- Mutagenicity	:	No information available.
- Reproductive toxicity	:	Fertility study (3 generations) (Rat) : no impairment of fertility has been observed No effect observed on development (Published data).

12 Ecological information

MOBILITY

Expected behaviour of the product : Ultimate destination of the product : WATER.

BIODEGRADABILITY

- Ultimate aerobic biodegradability : Readily biodegradable.
(Unpublished internal reports)

BIOACCUMULATION

Octanol/water partition coefficient : To be considered to be : Not bioaccumulable.
(internal evaluation)

ECOTOXICITY

Effects on the aquatic environment : The product does not have any known adverse effects on the aquatic organisms tested.
LC 50 (Fish: Oncorhynchus mykiss) / 96h: 420 mg/l.
(Published data).

13 Disposal considerations

RESIDUES FROM PRODUCT

Prohibition : Do not allow the product to be released into the environment.

Destruction/Disposal : Dispose of in accordance with relevant local regulations.

CONTAMINATED PACKAGING

Prohibition : Do not dispose of the product at a rubbish tip.

Decontamination/cleaning : Cleaning is not required prior to disposal.

Destruction/Disposal : Dispose of at an approved site.

NOTE : The user's attention is drawn to the possible existence of local regulations regarding disposal.

14 Transport information

INTERNATIONAL REGULATIONS

Land

- Rail/road (RID/ADR) : NOT restricted.

Sea (IMO/IMDG) : NOT restricted.
Marine pollutant: NO.

Air (ICAO-IATA) : NOT restricted.

SAFETY DATA SHEET

5.1.1.c Woo

NOTE	:	The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

15 Regulatory information

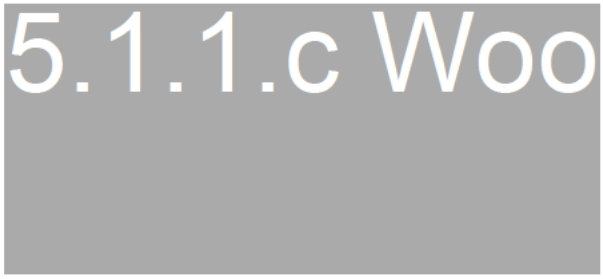
LABELLING

EC regulations	:	Mandatory labelling (self-classification) of hazardous substances: **NOT APPLICABLE**
- R phrases	:	No R phrases.
- S phrases	:	No S phrases.
NOTE	:	The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the Safety Data Sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16 Other information

* Update	:	This sheet was updated (refer to the date at the top of this page). Subheadings and text which have been modified since the previous version are indicated with an asterisk (*).

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfil his obligations regarding the use of hazardous products. This information is not exhaustive. This does not exonerate the user from ensuring that legal obligations, other than those mentioned, relating to the use and storage of the product, do not exist.This is solely his responsibility.


5.1.1.c Woo

MATERIAL SAFETY DATA SHEET

According to ISO 11014-1 and CEE 91/155

5.1.1.c Woo

1- SUPPLIER AND PRODUCT

SUPPLIER: 5.1.1.c Woo

2 - COMPOSITION

CHEMICAL NAME	E NUMBER	CAS NUMBER	EINECS NUMBER
Xanthan Gum	E 415	11138-66-2	234-394-2

3 – HAZARD IDENTIFICATION

Identification of specific danger for human beings or environment: Food additive product. Not dangerous product

Signs and specific risks: In presence of water, the product makes a slippery surface.

Recommendation: Contact with skin, eyes or inhalation can be irritant for sensitive persons due to the product hydrophile properties.

4 – FIRST AID

Skin contact: Wash with soap and water.

Eye contact: Rinse immediately with plenty of water. If irritation persists, obtain medical advice.

Ingestion: No risk if small quantity ingested.

Inhalation: Inhale fresh air.

.

5 – IN CASE OF FIRE

Special measures for fire fighting: Water – Foam – Powder

Particular fire / Explosion hazards: Material can burn in presence of flame and continues when flame disappears. The smoke characteristics can be compared to an organic product.

6 - SPILLAGES

Cleaning procedures: Remove the material by aspiration in order to avoid dust accumulation. If needed, wash the surfaces with water **ATTENTION** ! Surfaces may be slippery if not cleaned correctly. Collect the product in order to recycle or destroy it as per **point 13**.

7 – HANDLING AND STORAGE

Handling: To be handled in open well ventilated area in order to avoid dust formation. Humid atmosphere to be avoided.

Storage: Store in closed containers, away from heat sources and protected from extremes of temperature, light and humidity. Store separately from any flavor or chemical products.

8 – INDIVIDUAL PRECAUTIONS

Hand protection: No specific recommendations.

Eyes protection: Glasses are recommended during handling.

Respiratory protection: Anti-dust mask is recommended during handling.

9- PHYSICO-CHEMICAL CONSTANTS

Physical form:
Color:
Odor:
Melting Point °C:
Boiling point °C:
Flash point °C:
Density (25°C):
Solubility in water:

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.

10 – STABILITY AND REACTIVITY

Stability: Stable in normal conditions of temperature and pressure

Conditions to avoid: Usual protection in order to avoid dust explosions (concentration < 0,1 g/l)..

Hazardous decomposition: Thermal decomposition give smoke (see & 5).

11 – TOXICOLOGICAL DATA

DL 50 oral (rat): > 5 000 mg/kg

Skin contact effects
Eye irritation
Others information
may be irritant for sensitive persons

12 – ECOLOGICAL DATA

Toxicity (fish): No data available (avoid product getting into natural environment).

Bio-degradability: Biodegradable polysaccharide.

13 – DISPOSAL

Destruction of the product: To be recycled if possible. Destruction in specialized centers in accordance with state legislation.

Treatment of empty containers: Eliminate in specialized centers according to state legislation.

14 – TRANSPORTATION INFORMATION

Road:
Sea:
Air:
Non-hazardous

Specificity: Avoid humidity

15 – LEGISLATIVE INFORMATION

Xanthan Gum contained in 5.1.1.c Woo conforms to the definition and specifications from JECFA (FAO/WHO), FDA (21 CFR) and European Community (Directive 96/77/EC as amended).

16 – ADDITIONAL INFORMATION

The information contained herein is obtained from reputable sources and is to the best of our knowledge current at the mentioned date. It conforms to existing legislation and is given in good faith. The onus is on the User to take sensible precautions and to adhere to good manufacturing practices. Attention of users is drawn to potential hazards which may result from improper use of the product.


5.1.1.c Woo

5.1.1.c Woo

Safety Data Sheet

According to (EC) No 1907/2006 (REACH)

Revision Date: 27/Dec/2010 **Revision Number:** 1.1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name: 5.1.1.c Woo

Product Code

Product Use Industrial (not for food or food contact use)

CHEMICAL NAME:

COMPONENT(S)	**REACH REG #**	**CLP Classification**
Xanthan gum	Exempt	Not classified

Company 5.1.1.c Woo

Emergency Telephone Number

Internet

Email

2. HAZARDS IDENTIFICATION

CLASSIFICATION EC 67/548: Not Classified
EC 1272/2008: Not Classified

Label Element(s): None

Other Hazards: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT(S)	REACH REG #	CAS NUMBER:	CLP Classification
Xanthan gum; CAS: 11138-66-2	Exempt	11138-66-2	Not classified

4. FIRST AID MEASURES

General Advice:	Remove material from eyes, skin and clothing. In case of doubt or when symptoms persist, seek medical attention. Wash heavily contaminated clothing before reuse.
Eye contact	Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes. If eye irritation persists, seek medical attention.
Skin contact	Wash off with soap and plenty of water.
Ingestion	No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.
Inhalation	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

5. FIRE-FIGHTING MEASURES

General Advice	Treat as "Class A" fire. Product will burn when in contact with a flame. Self extinguishes when ignition source is removed. Tends to smoulder.
Suitable Extinguishing Media	Water Dry chemical Carbon dioxide (CO2)
Unsuitable Extinguishing Media	None
Hazardous Combustion Products	Carbon dioxide Carbon monoxide
Dust Explosion Hazard	Can contain sufficient fines to cause a combustible dust explosion. Do not breathe smoke, gases or vapors generated.
Special Protective Equipment for Firefighters	In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wet material on walking surfaces will be extremely slippery. Avoid dust formation. In case of exposure to high levels of airborne dust, wear a personal respirator in compliance with national legislation.
Environmental Precautions	Not expected to cause an environmental hazard a a result of its intended use, disposal, or incineration.
Methods for Cleaning up	Use vacuum equipment designed specifically for combustible dust. Take precautionary measures against static discharges. The use of water wash down is not recommended unless the spilled material is already wet. Disposal information - Refer to Section 13
Other Information	Reportable quantities - Refer to Section 15.

7. HANDLING AND STORAGE

Handling

Avoid dust formation. Provide appropriate exhaust ventilation in places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid conditions that generate airborne dust in handling, transfer and clean up. Product may form combustible dust-air mixtures. Keep away from heat, flame sparks and other ignition sources. Avoid emptying package in or near flammable vapors. Static charges may cause flash fire. Remove material from eyes, skin and clothing.

Storage

Store in a roofed and well ventilated area in the unopened original package. Avoid storing near incompatible materials (Refer to Section 10).

SPECIFIC END USES:

Industrial, Stabilizer, Thickener

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Ventilation: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits in this section. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

Personal Protective Equipment

Respiratory Protection

If handling generates dust levels which cause irritation, or results in personal exposure exceeding the Occupational Exposure Standard (OES) of 10 mg M-3 (8 hr TWA reference period) for total inhalable dust, then suitable approved dust respirator should be used. Personal exposure to dust should ideally be controlled to the lowest level possible below the OES.

Hand Protection

Gloves are recommended if extended exposure is anticipated.

Eye Protection

This product does not cause significant eye irritation or eye toxicity requiring special protection. Where there is significant potential for eye contact, wear chemical goggles and have eye flushing equipment available.

Skin and Body Protection

Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

EXPOSURE LIMIT VALUES:

9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	
Physical State	
Odor	
pH	
Flash Point	
Oxidizing Properties	
Water Solubility	

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Conditions to Avoid	Avoid dust formation.
Materials to Avoid	Strong oxidizing agents
Hazardous Decomposition Products	Thermal decomposition products: Carbon monoxide Carbon dioxide (CO_2)
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

GENERAL	The dry powder may cause foreign body irritation in some individuals. Prolonged contact with the dry powder may cause drying or chapping of the skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration. Due to the hygroscopic properties, they can form a paste or gel in the airway.
Toxicological Data Sources	Data from laboratory studies conducted by 5.1.1.c Woo and/or from the scientific literature on components are summarized below.

Xanthan gum; CAS: 11138-66-2

LD50 Oral	>5000 mg/kg (rat)
Chronic Effects	No adverse effects observed in long-term feeding studies with rats (up to 1,000 mg/kg/day)
Allergy	No skin allergy observed in guinea pig following repeated skin exposure
Irritation	Non-irritating Skin (rabbit) Non-Irritating Eye (rabbit)
Reproductive Effects	No adverse effects were observed in a 3-generation reproduction study with rats (up to 500 mg/kg/day)
Eyes	Dry powder may cause foreign body irritation in some individuals.
Skin	Prolonged contact with the dry powder may cause drying or chapping.
Inhalation	Hygroscopic properties of the gum can form a paste or gel in the airway. Inhalation of dust may cause respiratory tract irritation. Excessive inhalation of dust may cause coughing and sneezing.
Ingestion	Not toxic if swallowed (less than a mouthful) based on available information.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.
Persistence / Degradability	This product is biodegradable.
Mobility	Inert material
Bioaccumulative Potential	Inherently biodegradable.

Xanthan gum; CAS: 11138-66-2

96-Hour LC50	Rainbow trout: 490 mg/L. Mysid shrimp: > 50,000 ppm suspended particulate phase using 2 lb./bbl. xanthan gum in a standard drilling mud.
48-Hour EC50	Daphnia magna: 980 mg/L.
BOD	BOD = ~200 mg O2/gram
COD	COD = ~1600 mg O2/gram

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS:	Dispose in accordance with local, state and national regulations.
European Waste Catalogue (EWC):	060299 (wastes not otherwise specified)

14. TRANSPORT INFORMATION

UN-No	None.
IMO / IMDG	Not hazardous
ICAO / IATA	Not hazardous
RID/ADR	Not a dangerous substance.
D.O.T. Hazard Classification	Non-hazardous material.

15. REGULATORY INFORMATION

Component(s) of the product are on the following Inventory lists:

COMPONENT(S)	REACH REG #	Australia (AICS)	Canada	China (IECSC)	Japan	Korea (KECL)	New Zealand (NZIoC)	Philippines (PICCS)	USA (TSCA)
Xanthan gum CAS: 11138-66-2	Exempt	Present	Present (DSL)	Present	(8)-535 (ENCS)	KE-35422	Present	Present	Present

16. OTHER INFORMATION

Prepared By: 5.1.2.e Woo

Reason for Version: Regulation (EC) 1907/2006: REACH

Disclaimer

The information contained in this Safety Data Sheet to the best of 5.1.1.c Woo knowledge and belief as of the date indicated is believed to be accurate and reliable. However, no representation, warranty or guarantee is implied or expressed regarding the accuracy, reliability or completeness of this information or the use of the product. Nothing contained herein should be construed as a recommendation to use this product in conflict with National or local regulations or existing patents covering any material or its use. In case of dispute, the English text governs.

END OF SAFETY DATA SHEET


5.1.1.c Woo

5.1.1.c Woo

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

5.1.1.c Woo

Version 1.1 Revision Date 01.12.2008 Print Date 15.03.2011

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name 5.1.1.c Woo
Product code
Use of the Substance/Preparation : Biocidal product

Company 5.1.1.c Woo

Telephone
Telefax
Emergency telephone
Responsible/issuing person
E-mail address

2. HAZARDS IDENTIFICATION


Corrosive


Dangerous for the environment

Risk advice to man and the environment

Harmful if swallowed.
Causes burns.
May cause sensitization by skin contact.
Very toxic to aquatic organisms.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Solution of a bactericide in an organic solvent.

Hazardous components

Chemical Name	CAS-No.	EC-No. / Registration number	Classification	Concentration [%]
1,2-Benzisothiazolin-3-one	2634-33-5	220-120-9	Xn; R22 Xi; R38-R41 R43 N; R50	buiten reikwijdte verzoek
Sodium hydroxide	1310-73-2	215-185-5	C; R35	

For the full text of the R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice : Immediate medical attention is required.
Move out of dangerous area.

Inhalation : Move to fresh air.
Keep patient warm and at rest.
Give oxygen or artificial respiration if needed.
Immediate medical attention is required.

Skin contact : Take off contaminated clothing and shoes immediately.
Wash off immediately with plenty of water for at least 15 minutes.
Immediate medical attention is required.
Wash contaminated clothing before re-use.

Eye contact : Rinse immediately with plenty of water for at least 15 minutes.
Keep eye wide open while rinsing.
Immediate medical attention is required.
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

Ingestion : Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
Immediate medical attention is required.

Notes to physician

Treatment : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

: Water spray
Foam
Carbon dioxide (CO2)

Specific hazards during fire fighting	:	The product is not flammable. Do not allow run-off from fire fighting to enter drains or water courses.
	:	Burning produces noxious and toxic fumes.
Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus.
Further information	:	Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Ensure adequate ventilation. Avoid contact with the skin and the eyes. Refer to protective measures listed in sections 7 and 8. Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use.
Environmental precautions	:	The product should not be allowed to enter drains, water courses or the soil. If the product contaminates rivers and lakes or drains inform respective authorities. Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). After cleaning, flush away traces with water. Retain and dispose of contaminated wash water.
	:	Pick up and transfer to properly labelled containers. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours or spray mist. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Use only in an area equipped with a safety shower.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.

Storage

Requirements for storage	:	Store in original container.

areas and containers : Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Use appropriate containment to avoid environmental contamination.

Other data : No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Sodium hydroxide	1310-73-2	STEL	2 mg/m3	2005-04-06	GB EH40

Engineering measures

Apply technical measures to comply with the occupational exposure limits.

Personal protective equipment

Respiratory protection : In the case of aerosol or mist formation use respirator with an approved filter.
Suitable mask with particle filter P3 (European Norm 143)

Hand protection : Impervious gloves
Nitrile rubber
The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.
Gloves must be inspected prior to use.
Replace when worn.
Do not wear leather gloves.

Eye protection : Wear eye/face protection.
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
impervious clothing
Complete suit protecting against chemicals

Hygiene measures : Avoid contact with skin, eyes and clothing.
High standards of skin care and personal hygiene should be

exercised at all times.
Keep working clothes separately.
Wash hands before breaks and immediately after handling the product.
Contaminated work clothing should not be allowed out of the workplace.
Remove and wash contaminated clothing and gloves, including the inside, before re-use.
Ensure that eyewash stations and safety showers are close to the workstation location.
When using do not eat, drink or smoke.

Protective measures



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	:	buiten reikwijdte verzoek
Colour	:	
Odour	:	

Safety data

Flash point	:	
Lower explosion limit	:	
Upper explosion limit	:	
Autoignition temperature	:	
pH	:	
Melting point/range	:	
Boiling point/boiling range	:	
Vapour pressure	:	
Density	:	
Water solubility	:	
Partition coefficient: n-	:	

octanol/water		buiten reikwijdte verzoek
Solubility in other solvents	:	
Viscosity, dynamic	:	

10. STABILITY AND REACTIVITY

Conditions to avoid	:	None known.
Materials to avoid	:	Acids Oxidizing agents Reducing agents
Hazardous decomposition products	:	nitrogen oxides (NOx) Sulphur oxides
Thermal decomposition	:	Note: None known.
Hazardous reactions	:	Note: Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	LD50 Species: rat female Dose: 1,221 mg/kg Remarks: Ingestion of aqueous solution causes gastrointestinal burns.
	:	LD50 Species: rat male Dose: 2,175 mg/kg
	:	Remarks: Harmful if swallowed.
Acute inhalation toxicity	:	Remarks: Inhalation of aerosol may cause irritation to the upper respiratory tract.
Skin irritation	:	Remarks: Causes skin burns.
Eye irritation	:	Remarks: Causes eye burns.
Sensitisation	:	Remarks: May cause sensitization by skin contact.
CMR effects		

1,2-Benzisothiazolin-3-one	:	Carcinogenicity: Short term tests and a consideration of the structure have shown that it is not likely to be a carcinogenic hazard to man.
Further information	:	no data available

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish	:	LC50 Species: Oncorhynchus mykiss (rainbow trout) Dose: 7 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to fish 1,2-Benzisothiazolin-3-one	:	LC50 Species: Oncorhynchus mykiss (rainbow trout) Dose: 2.18 mg/l Exposure time: 96 h Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates.

1,2-Benzisothiazolin-3-one	:	EC50 Species: Daphnia magna (Water flea) Dose: 2.94 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	ErC50 Species: Pseudokirchneriella subcapitata (green algae) Dose: 0.58 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to algae 1,2-Benzisothiazolin-3-one	:	ErC50 Species: Pseudokirchneriella subcapitata (green algae) Dose: 0.11 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

Elimination information (persistence and degradability)

Bioaccumulation	:	Remarks: Bioaccumulation is unlikely.

Bioaccumulation
1,2-Benzisothiazolin-3-one : Remarks: Bioaccumulation is unlikely.

Biodegradability
1,2-Benzisothiazolin-3-one : Remarks: Inherently biodegradable.

Further information on ecology

Additional ecological information : Very toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Product : This material and its container must be disposed of as hazardous waste.
The product should not be allowed to enter drains, water courses or the soil.
Dispose of as hazardous waste in compliance with local and national regulations.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

Contaminated packaging : Dispose of as unused product.
Do not re-use empty containers.

14. TRANSPORT INFORMATION

Dangerous for Transport

ADR

UN-Number	:	1719
Description of the goods	:	CAUSTIC ALKALI LIQUID, N.O.S. (Sodium hydroxide, 1,2-Benzisothiazolin-3-one)
Class	:	8
Packing group	:	II
Classification Code	:	C5
Hazard identification No	:	80
Labels	:	8

IATA

UN-Number	:	1719
Description of the goods	:	Caustic alkali liquid n.o.s. (Sodium hydroxide, 1,2-Benzisothiazolin-3-one)
Class	:	8
Packing group	:	II
Labels	:	8

IMDG

UN-Number	:	1719
Description of the goods	:	CAUSTIC ALKALI LIQUID, N.O.S.

(Sodium hydroxide, 1,2-Benzisothiazolin-3-one)

Class	:	8
Packing group	:	II
Labels	:	8
EmS Number 1	:	F-A
EmS Number 2	:	S-B
Marine pollutant	:	yes 1,2-Benzisothiazolin-3-one

15. REGULATORY INFORMATION

Labelling according to EC Directives

1999/45/EC

Symbol(s)	:	C	Corrosive
		N	Dangerous for the environment
R-phrase(s)	:	R22	Harmful if swallowed.
		R34	Causes burns.
		R43	May cause sensitization by skin contact.
		R50	Very toxic to aquatic organisms.
S-phrase(s)	:	S23	Do not breathe spray.
		S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
		S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
		S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
		S60	This material and its container must be disposed of as hazardous waste.
		S61	Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Hazardous components which must be listed on the label:

- 1,2-Benzisothiazolin-3-one 2634-33-5
- Sodium hydroxide 1310-73-2

National legislation

Major Accident Hazard Legislation	:	96/82/EC Update: 2003 Dangerous for the environment Quantity 1: 100 t Quantity 2: 200 t
Water contaminating class (Germany)	:	WGK 2 water endangering
Volatile organic compounds (VOC) content	:	Directive 1999/13/EC not applicable

16. OTHER INFORMATION

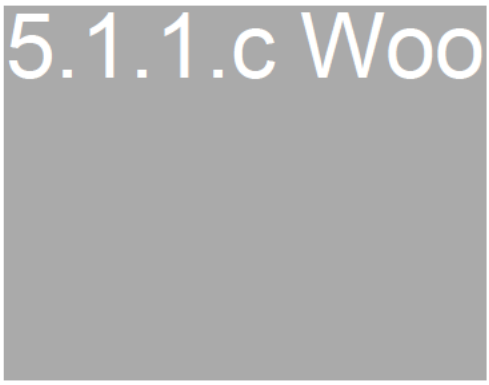
Full text of R-phrases referred to under sections 2 and 3

R22	Harmful if swallowed.
R34	Causes burns.
R35	Causes severe burns.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact.
R50	Very toxic to aquatic organisms.

Further information

5.1.1.c Woo s a trade mark of 5.1.1.c Woo

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.


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1 Identification of the substance/mixture and of the company/undertaking

· **Product identifier**

· **Trade name:** 5.1.1.c Woo

· **Relevant identified uses of the substance or mixture and uses advised against**

· **Application of the substance / the preparation**
Biocidal product for industrial and/or commercial use.

· **Details of the supplier of the safety data sheet**

· **Address and telephone number of the supplier:**

5.1.1.c Woo

· **Competent person responsible for the Material Safety Data Sheet:**
Regulatory Department: 5.1.1.c Woo

· **Emergency telephone number:**

5.1.1.c Woo

2 Hazards identification

· **Classification of the substance or mixture**

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**


C; Corrosive

R34: Causes burns.


Xi; Sensitising

R43: May cause sensitisation by skin contact.


N; Dangerous for the environment

R50: Very toxic to aquatic organisms.

· **Classification system:**
Classification: "corrosive", R 34, for pH less or equal 2,0 or pH equal or greater 11,5
The classification of health and environmental hazards is based on experimental and epidemiological data together with the conventional method according to Articles 6 & 7 of Directive 1999/45/EC.

· **Label elements**

· **Labelling according to EU guidelines:**

· **Code letter and hazard designation of product:**


C Corrosive
N Dangerous for the environment

· **Hazard-determining components of labelling:**
1,2-benzisothiazol-3(2H)-one

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· **Risk phrases:**
34 Causes burns.
43 May cause sensitisation by skin contact.
50 Very toxic to aquatic organisms.

· **Safety phrases:**
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.
· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:**
This mixture contains no substances that correspond to the PBT criteria of REACH, annex XIII.
· **vPvB:**
This mixture contains no substances that correspond to the vPvB criteria of REACH, annex XIII.

3 Composition/information on ingredients

· **Chemical characterization: mixtures**
· **Description:** Preservative based on isothiazolones.

· **Dangerous components:**	
CAS: 2634-33-5 EINECS: 220-120-9 Index number: 613-088-00-6	1,2-benzisothiazol-3(2H)-one Xn R22; Xi R38-41; Xi R43; N R50 Eye Dam. 1, H318; Aquatic Acute 1, H400; Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317
CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00-6	sodium hydroxide C R35 Skin Corr. 1A, H314

· **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· **Description of first aid measures**
· **General information** Personal protection for the First Aider.
· **After inhalation** Supply fresh air; consult doctor in case of symptoms.
· **After skin contact**
Remove contaminated clothing immediately.
Destroy or thoroughly clean contaminated shoes.
Wash immediately with plenty of water and soap and rinse thoroughly.
Call a doctor immediately.
In case of extensive skin contact, immediately use safety shower.
· **After eye contact**
Rinse opened eye for at least 15 minutes under running water and apply a sterile protective bandage. Get medical attention.
· **After swallowing**
Rinse mouth and drink plenty of water.

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Do not induce vomiting. Call a physician immediately.
Bring vomiting person into recovery position.

· **Information for doctor** Probable mucosal damage may contraindicate the use of gastric lavage.
· **Most important symptoms and effects, both acute and delayed**
Allergic skin reactions.
Corrosive damage to gastro-intestinal tract.
· **Indication of any immediate medical attention and special treatment needed**
Treat skin and mucous membrane with antihistamine and corticoid preparations.
Rinse eyes thoroughly with physiological saline.

5 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents** Water spray jet, extinguishing powder, CO2, foam.
· **Unsuitable extinguishing agents for reasons of safety:** None
· **Special hazards arising from the substance or mixture**
Under certain fire conditions, traces of toxic gases cannot be excluded, e.g.:
Sulphur dioxide (SO2)
Nitrogen oxides (NOx)
Carbon monoxide (CO)
· **Advice for firefighters**

· **Protective equipment:** Wear self-contained breathing apparatus.
· **Additional information**
Collect contaminated fire fighting water separately. It must not enter drains.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing (see item 8).
Keep unprotected persons away.
When selecting the protective suit attention has to be paid to the complete and safe protection of skin and mucous membranes. Impermeable protective clothes, protective boots made of neoprene, complete face protection and nitrile-rubber-gloves with long tops should be worn.
· **Environmental precautions:**
Prevent from spreading (e. g. by enclosing with a ring of chemical absorbent).
As the product is hazardous for the aquatic environment, it must be prevented from reaching surface water.
Inform authorities in case of contamination of water or sewage system.
· **Methods and material for containment and cleaning up:**
Collect large amounts in suitable container. Cover the rest with absorbent, mix intensively and collect mechanically.
Suitable binder: multi-purpose absorbent.
Dispose of contaminated material as waste according to item 13.
· **Reference to other sections** None

7 Handling and storage

· **Handling**
· **Precautions for safe handling**
Ensure good exhaust ventilation at the workplace.
It is preferable to handle the product in a closed system.

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Load carefully, avoid splashes.
Compliance with the minimum requirements designed to guarantee a better standard of safety and health at work is essential to ensure the safety and health of workers.
· **Information about protection against explosion and fire:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and containers:**
Information about suitable materials for vessels and piping can be requested from our sales department.
5.1.1.c Woo
Store only in the original container.
· **Information about storage in a common storage facility:** Store away from foodstuffs.
· **Further information about storage conditions:**
Keep containers tightly sealed.
Prevent release to the environment by adequate secondary containment design and use of appropriate spill control procedures.

8 Exposure controls/personal protection

· **Control parameters**
· **Components with critical values that require monitoring at the workplace:** None established.

· **Additional information:** Information valid at the time of review of safety data sheet.

· **Exposure controls**
· **Personal protective equipment**
· **General protective and hygienic measures:**
Use skin cream for skin protection.
Avoid contact with the eyes and the skin.
Wash hands during work breaks and at the end of the shift.
Provide skin protection plan.

· **Respiratory protection:** Not necessary if room is well ventilated.

· **Protection of hands:**



Chemical protective gloves according to DIN EN 374 with CE-labelling.

Check the condition of protective gloves after each use for any damages like holes, cuts or tears.
Do not wear protective gloves longer than necessary.
After use of gloves apply skin-cleaning agents and skin cosmetics.
· **Material of gloves:** Nitrile rubber, NBR
· **Penetration time of glove material:**
Penetration time depends on different criteria and may be determined by the manufacturer according to the standard DIN EN 374-3.
· **Gloves made of the following materials are not suitable:**
Gloves for mechanical protection do not provide protection against chemicals.

· **Eye protection:**



Face shield

· **Body protection:**
Alkaline resistant protective clothing

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Protective clothing.
Apron
Full head, face and neck protection
· **Risk management measures**
The operators shall be instructed adequately.
The workplace shall be inspected regularly by competent personnel e.g. the safety representative.

*

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**
Form:
Colour:
buiten reikwijdte verzoek
· **Odour:**
· **pH-value at 20°C:**
· **Change in condition**
Melting point/Melting range:
Boiling point/Boiling range:
· **Flash point:**
· **Self-inflammability:**
· **Danger of explosion:**
· **Vapour pressure at 20°C:**
· **Density at 20°C**
· **Solubility in / Miscibility with**
Water:

10 Stability and reactivity

· **Reactivity**
· **Chemical stability**
· **Conditions to be avoided:** No decomposition if used according to specifications.
· **Minimum shelf life:** 24 months from production date.
· **Possibility of hazardous reactions** Reacts with acids
· **Incompatible materials:** Acids
· **Hazardous decomposition products:**
None, if storage and handling is done according to specification.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
Oral	ATE mix	> 5000 mg/kg (rat) (calculated acc. to Annex I, item 3.1.3.6.1 CLP)
Dermal	ATE mix	> 5000 mg/kg (rat) (calculated acc. to Annex I, item 3.1.3.6.1 CLP)

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· **Primary irritant effect:**
· **on the skin:** Caustic effect on skin and mucous membranes.
· **on the eye:** Strong caustic effect.

· **Sensitization:** Sensitization possible by skin contact.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**	
L(E)C 50 mix, alg	0.3 mg/l (Scenedesmus subspicatus) (calculated acc. to Annex I, item 4.1.3.4.3 CLP)
L(E)C 50 mix, dap	15 mg/l (Daphnia) (calculated acc. to Annex I, item 4.1.3.4.3 CLP)
L(E)C 50 mix, fish	11 mg/l (rainbow trout) (calculated acc. to Annex I, item 4.1.3.4.3 CLP)

· **Persistence and degradability**
· **Method** OECD 302B (Zahn-Wellens-Test), 28 d
· **Analysing method** BIT-elimination
· **Degree of elimination:**
ca. 90 %
The product ingredients can be readily eliminated in the sewage system.
· **Other information:** The active ingredients are biodegradable up to the MIC for bacteria.

· **Behaviour in environmental systems:**
· **Bioaccumulative potential**
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
log Kow 0.4; BIT

· **Ecotoxicological effects:**

· **Behaviour in sewage processing plants:**
2634-33-5 1,2-benzisothiazol-3(2H)-one
EC50 / 16 h 10.4 mg/l (Pseudomonas putida)

5.1.2.e Woo BPZ59991

· **Remark:**
Toxic effect on activated sludge organisms depending on concentration possible. The continuous addtion of waste water that contains up to 10 ppm BIT into an adapted biological sewage plant is tolerated by the activated sludge organisms.
· **Additional ecological information:**
· **COD-value:** 1460 mg 02/g product
· **AOX-indication:**
The product does not contain substances, which can influence the AOX of waste water.
· **The formulation contains the following heavy metals and their compounds according to Directive 2006/11/EC:**
None

· **General notes:**
The product contains materials that are harmful to the environment.
Avoid transfer into the environment.
· **Results of PBT and vPvB assessment**
· **PBT:**
This mixture contains no substances that correspond to the PBT criteria of REACH, annex XIII.

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· **vPvB:**
This mixture contains no substances that correspond to the vPvB criteria of REACH, annex XIII.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation**
Product must be disposed of according to local regulations pertaining to the disposal of hazardous waste.

· European waste catalogue	
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 03 00	off-specification batches and unused products
16 03 05*	Organic wastes containing dangerous substances

· **Contaminated packaging:**
· **Recommendation:** Remove all product from packaging and clean thoroughly before recycling.
· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

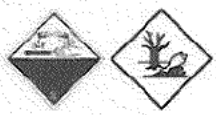
14 Transport information

· **Land transport ADR/RID (cross-border/domestic):**



· **ADR/RID Class:**	8 (C5) Corrosive substances.
· **Kemler Number:**	80
· **UN-Number:**	1719
· **Packing group:**	III
· **Label**	8
· **Special marking:**	Symbol (fish and tree)
· **UN proper shipping name:**	1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, 1,2-benzisothiazol-3(2H)-one)
· **Tunnel restriction code**	E

· **Maritime transport IMDG:**



· **IMDG Class:**	8
· **UN Number:**	1719
· **Label**	8
· **Packing group:**	III
· **EMS Number:**	F-A,S-B
· **Marine pollutant:**	Yes Symbol (fish and tree)
· **Segregation groups**	Alkalis

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· **Correct technical name:** CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, 1,2-benzisothiazol-3(2H)-one)

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 8
· **UN/ID Number:** 1719
· **Label** 8
· **Packing group:** III
· **Correct technical name:** CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, 1,2-benzisothiazol-3(2H)-one)
· **Remarks:** Packing Instructions / Max. net weight Passenger aircraft: 852 / 5 L
Cargo aircraft: 856 / 60 L
· **Special precautions for user** Warning: Corrosive substances.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Designation according to EC guidelines:**

· **Identity of biocidal active substances according to EC directive 98/8/EC:**
1,2-benzisothiazol-3(2H)-one

· **National regulations:**

· **Information about limitation of use:**
Take note of Directive 94/33/EC on the protection of young people at work.
Take note of Directive 92/85/EC on the safety and health of pregnant women at work.

· **Regulations which may apply in event of accident: Control of Major Accident Hazards (COMAH)**
Critical quantity values according to the regulations on accidents should be adhered to.
· **Indication of VOC:**
· **Directive 1999/13/EG:**
Due to the formulation, no volatile organic solvents, which may contribute to the VOC-value, are contained.
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This data is based on our current knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.

· **Relevant phrases**
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.

R22 Harmful if swallowed.

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R35 Causes severe burns.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R50 Very toxic to aquatic organisms.

· **Training hints**
Further information regarding the directions for use can be found in the Product Data Sheet.
Should you require any information regarding classification and registration of preparations containing this product please contact our Regulatory Affairs Department, Tel: 5.1.1.c Woo
5.1.1.c Woo

· **Recommended application fields and dose levels for biocides:**
Metalworking-fluid preservatives (PT 13): 0.5-2.5 g/kg.
· **Contact for technical information:** Biocides: 5.1.1.c Woo
· *** Data altered since the previous version.**

GB


5.1.1.c Woo

Material Safety Data Sheet

5.1.1.c Woo

Substance key: 000000060750
Version : 1 - 1 / AUS

Revision Date: 21.10.2008
Date of printing : 06.08.2009

Section 1 Identification of the Material and Supplier

Product (Material) Name:

5.1.1.c Woo

Material number: 5.1.1.c Woo

Recommended use:

Industry sector :	Polymers industry
Type of use :	Bactericide

Supplier name/address/telephone no.:

5.1.1.c Woo

Information about the substance/preparation

5.1.1.c Woo

Emergency telephone number : 5.1.1.c Woo

Section 2 Hazards Identification

Hazard Classification

Classified as hazardous according to the criteria of ASCC.
Classified as dangerous goods according to the Australian Code for Transport of Dangerous Goods.

Risk phrase(s):

35	Causes severe burns.
43	May cause sensitization by skin contact.

Safety phrase(s):

36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
28.1	After contact with skin, wash immediately with plenty of water.
26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 3 Composition/Information on ingredients

Chemical characterization

Biocidal preparation containing Benzisothiazolinone in Dipropylene Glycol

Chemical identity of ingredients:

1,2-Benzisothiazol-3(2H)-one

Concentration :	buiten reikwijdte verzoek				
CAS number :	2634-33-5				
R phrases	22	38	41	43	50

Substance key: 000000060750
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Date of printing : 06.08.2009

Sodium hydroxide
Concentration : buiten reikwijdte verzoek
CAS number : 1310-73-2
R phrases 35

1,1'-Oxydipropan-2-ol
Concentration : buiten reikwijdte verzoek
CAS number : 110-98-5

Water
Concentration : buiten reikwijdte verzoek
CAS number : 7732-18-5

The text of the R-phrases is shown in section 16.

Section 4 First aid measures

Description of Necessary First Aid Measures

General information

For advice, contact a Poisons Information Centre (Phone Australia 13 1126) or a doctor.
Remove soiled or soaked clothing immediately

After inhalation

If inhaled, remove immediately to fresh air; if not breathing give artificial respiration; obtain medical help.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

After contact with skin

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.
Seek medical advice immediately.

After contact with eyes

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

After ingestion

Rinse mouth thoroughly with water.
If swallowed do not induce vomiting,seek medical advice and show safety datasheet or label

Medical Attention and Special Treatment:

Treatment

Treat symptomatically.

Section 5 Fire fighting measures

Suitable extinguishing media

foam
dry powder
carbon dioxide
water spray jet

Special protective precautions and equipment for fire fighters:

Use self-contained breathing apparatus

Cool endangered containers with water spray jet.

Hazchem Code: 2R

Section 6 Accidental release measures

Emergency procedures:

Wear personal protective equipment. Unprotected persons must be kept away.
Avoid contact with skin and eyes.
Do not allow entry to drains,water courses or soil

Methods and materials for containment and clean up:

Cover with absorbent material (eg sand, peat, earth) and then pick it up.
Wash with plenty of water.

Further accidental release measures

Corrosive liquid
Collect spilled product completely.
Dispose appropriately.

Section 7 Handling and storage

Precautions for safe handling:

Observe the general rules of industrial fire protection

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a cool, well-ventilated place, open and handle carefully.
Protect from direct sunlight
Store at a temperature between 5 to 40 °C

Section 8 Exposure controls/personal protection

National exposure standards:

Sodium hydroxide
CAS number : 1310-73-2
NOHSC: 1003(1995) Australian Exposure Standards (as amended)
Australia OEL - NOHSC Exposure Standards
Revision : 01/09/2005
Exposure standard - time-weighted average
Values: 2 mg/m3

Sodium hydroxide
CAS number : 1310-73-2
NOHSC: 1003(1995) Australian Exposure Standards (as amended)
Australia OEL - NOHSC Exposure Standards
Revision : 01/09/2005
Peak Limitation
Values: 2 mg/m3

National exposure standards:

No Biological Limit allocated.

Alternative standards:

Sodium hydroxide
CAS number : 1310-73-2
ACGIH Threshold Limit Values (consolidated)
US ACGIH Threshold Limit Values
Revision : 01/01/2007
Threshold Limit Value_Ceiling
Values: 2 mg/m3

Personal protective equipment

General protective measures
Do not breathe vapours, aerosols or mists.
Avoid contact with eyes and skin
Avoid exposure - obtain special instructions before use

Hygiene measures
At work do not eat, drink, smoke or take drugs.
Remove soiled or soaked clothing immediately and clean thoroughly before using again.
Wash hands immediately after work, if necessary take a shower
Observe the usual precautionary measures required for chemicals.

Respiratory protection :	If ventilation insufficient, use a respiratory protection apparatus
Hand protection :	Rubber gloves These types of protective gloves are offered by various manufacturers. Please note the manufacturers´ detailed statements, especially about the minimum thickness and the minimum breakthrough time. Consider also the particular working conditions under which the gloves are being used.
Eye protection :	Safety goggles
Body protection :	protective overalls, PVC PVC boots

Section 9 Physical and chemical properties

Form :	buiten reikwijdte verzoek
Colour :	
Odour :	
Freezing point :	
Boiling point :	
Flash point :	
Ignition temperature :	
Density :	

Substance key: 000000060750
Version : 1 - 1 / AUS

Revision Date: 21.10.2008
Date of printing : 06.08.2009

Solubility in water : buiten reikwijdte verzoek

pH value :

Viscosity (dynamic) :

Thermal decomposition :

Section 10 Stability and reactivity

Hazardous reactions

Reactions with oxidising agents.
Reactions with reducing agents.
Further info on stability : Stable.

Hazardous decomposition products

Hazardous decomposition products:
Nitrous oxides (NOx)
Sulphurous oxides (SOx)

Section 11 Toxicological information

Acute oral toxicity : LD50 > 2,000 mg/kg (rat)

Irritant effect on skin : corrosive

Irritant effect on eyes : corrosive

Sensitization : sensitizing (Guinea pig)

Section 12 Ecological information

Fish toxicity : LC50 > 10 mg/l
Method : calculated

Remarks

If handled correctly it causes no disturbance in treatment plants.
Do not allow to enter soil, waterways or waste water
The classification was made by the conventional (calculation) method of the Dangerous Preparations Directive (1999/45/EC)

Section 13 Disposal considerations

Disposal methods

Product

Dispose of in accordance with local authority regulations

Uncleaned packaging

Uncontaminated packaging may be taken for recycling
Packaging that cannot be cleaned should be disposed of as product waste

Section 14 Transport information

ADG

Proper shipping name:	Sodium hydroxide solution
Class:	8
Packing group:	II
UN no.	UN 1824
Primary risk:	8
Hazchem Code:	2R
Remarks	Shipment permitted

IATA

Proper shipping name:	Sodium hydroxide solution
Class:	8
Packing group:	II
UN/ID number:	UN 1824
Primary risk:	8
Remarks	Shipment permitted

IMDG

Proper shipping name:	Sodium hydroxide solution
Class:	8
Packing group:	II
UN no.	UN 1824
Primary risk:	8
Remarks	Shipment permitted
EmS :	F-A S-B

Section 15 Regulatory information

Regulatory information (Australia)

All components of this product are listed on the Australian Inventory of Chemical Substances (AICS).
Combustible liquid, class C2, flashpoint above 150 C. For storage, handling and transportation requirements, refer Australian Standard AS 1940-2004 "The Storage and Handling of Flammable and Combustible Liquids" and "Australian Code for the Transport of Dangerous Goods by Road and Rail".
Poison schedule (SUSDP): Schedule 6

Section 16 Other information

Substance key: 000000060750
Version : 1 - 1 / AUS

Revision Date: 21.10.2008
Date of printing : 06.08.2009

Additional information
Observe national and local legal requirements

Literature references:
National Code of Practice for the Preparation of Material Safety Data Sheets, 2nd Edition [NOHSC:2011(2003)]
Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)]

Text of the R-phrases assigned to the ingredients/components mentioned in section 3 :

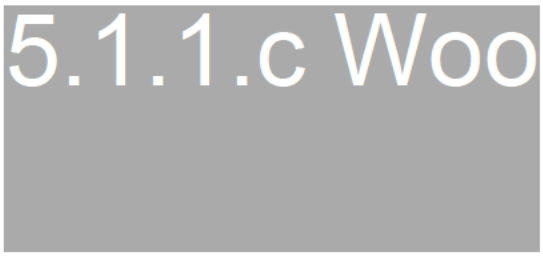
22	Harmful if swallowed.
35	Causes severe burns.
38	Irritating to skin.
41	Risk of serious damage to eyes.
43	May cause sensitization by skin contact.
50	Very toxic to aquatic organisms.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

End of MSDS


5.1.1.c Woo

5.1.1.c Woo

ADDENDUM TO MATERIAL SAFETY DATA SHEET

This MSDS is delivered in an internationally recognised EU format. This addendum provides information specifically for this product according to Australia and New Zealand's *National Code of Practice for the Preparation of Material Safety Data Sheets*. This addendum should not be detached but rather read in conjunction with the MSDS which follows. It remains integral to the attached MSDS.

Identification				
Product name	5.1.1.c Woo			5.1.2.e Woo
MSDS Reference	5.1.1.c Woo	Date of Issue	07 May, 2009	Page 00 of 9
Contact Details				
Company	5.1.1.c Woo			
Australian Address				
Telephone				
Emergency - Australia				
New Zealand Address				
Telephone				
Emergency – NZ				
Statements of Use				
Recommended use	Biocide for industrial application			
Methods of application	Mechanical incorporation into production/formulation processes			
Control of Workplace Hazardous Substances Regulations				
Hazardous nature	Hazardous according to criteria of NOHSC			
Classification	X – Harmful			
Risk phrases	R22 Harmful if swallowed R41 Risk of serious damage to eyes R38 Irritating to skin R43 May cause sensitization by skin contact.			
Safety phrases	S24 Avoid contact with skin S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S36/37/39 Wear suitable protective clothing, gloves and eye/face protection S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).			
Australian Dangerous Goods Code Information				
Class / Subsidiary risk	Dangerous good according to ADG6 (6th Edition)			
UN Number	1719		Hazchem	2R
Packing Group	III		DG Class	8
Emergency Guide			Guide 37	SAA/SNZ HB76: 1997
Proper Shipping Name	Caustic alkali liquid, n.o.s. (sodium hydroxide, benzoisothiazolone)			
Other information				
Poisons schedule	Not scheduled poison			
Exposure standard	**Sodium hydroxide 1310-73-2** **TWA -- ppm 2 mg/m^3**			
Other information	Slightly corrosive. Has a slight odour. Avoid temperatures below -10° C. Avoid heat above +40° C. Keep away from foodstuffs, acids and alkalis. All ingredients are listed on AICS			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - Europe 5.1.1.c Woo

SAFETY DATA SHEET

5.1.1.c Woo

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation

Product name : 5.1.1.c Woo

Use of the substance/preparation : Biocide for industrial application

Supplier/Manufacturer :

Emergency telephone number :

5.1.1.c Woo

2. HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Human health hazards : Harmful if swallowed. Risk of serious damage to eyes. Irritating to skin. May cause sensitisation by skin contact.

See section 11 for more detailed information on health effects and symptoms.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Product definition (REACH) : Preparation

Ingredient name	CAS number	%	EC number	Classification	REACH number
1,2-benzisothiazol-3(2H)-one	2634-33-5		220-120-9	Xn; R22 Xi; R41, R38 R43 N; R50	-
sodium hydroxide	1310-73-2		215-185-5	C; R35	-

Occupational exposure limits, if available, are listed in section 8.

4. FIRST AID MEASURES

First-aid measures

Inhalation : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical

5.1.1.c Woo

surveillance for 48 hours.

Ingestion : Wash out mouth with water. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye contact : Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

See section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable : In case of fire, use water spray (fog), foam, dry chemical or CO_2.

Not suitable : None known.

Special exposure hazards : In a fire or if heated, a pressure increase will occur and the container may burst.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
sulfur oxides
metal oxide/oxides

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

5.1.1.c Woo

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment (see section 8).

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. HANDLING AND STORAGE

Handling : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous.

Storage : Store between the following temperatures: -10 to 40°C (14 to 104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Packaging materials

Recommended : Use original container.

5.1.1.c Woo

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values : Not available.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Risk management measures

Occupational exposure controls

Technical measures : If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protection measures

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: Combination filter, e.g. DIN 3181 ABEK

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations :
<1 hours (breakthrough time): PVC or rubber gloves.

Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: Tightly-fitting goggles

Skin protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Recommended: Wear protective clothing.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls

Technical measures : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

5.1.1.c Woo

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

Physical state :

Odour :

buiten reikwijdte verzoek

Important health, safety and environmental information

pH :

Boiling point :

Melting point :

Vapour pressure :

Density :

Solubility :

Viscosity :

Ignition temperature: :

buiten reikwijdte verzoek

10. STABILITY AND REACTIVITY

Stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Contact with strong oxidising agents may cause hazardous reactions.

Materials to avoid : Reactive or incompatible with the following materials: acids

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Potential acute health effects

Ingestion : Harmful if swallowed. Irritating to mouth, throat and stomach.

Skin contact : Irritating to skin. May cause sensitisation by skin contact.

Eye contact : Severely irritating to eyes. Risk of serious damage to eyes.

Acute toxicity

Product/ingredient name	Result		Species	Dose	Exposure	Test
5.1.1.c Woo	LD50 Dermal	-	Rat	>5000 mg/kg	-	-
	LD50 Oral	-	Rat	1030 mg/kg	-	-

Irritation/Corrosion

Skin : Irritant.

Eyes : Severe irritant

5.1.1.c Woo

Product/ingredient name	Result	Species	Dose	Exposure	Test

Sensitiser

Skin : 1,2-benzisothiazol-3(2H)-one : Sensitizing to the skin in an animal study.

Chronic toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1,2-benzisothiazol-3(2H)-one	Sub-chronic NOAEL Oral	Rat	25 mg/kg/d	90 days

Chronic effects : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Over-exposure signs/symptoms

Skin : Adverse symptoms may include the following:
irritation
redness

Eyes : Adverse symptoms may include the following:
pain or irritation
watering
redness

12. ECOLOGICAL INFORMATION

Ecotoxicity data

Product/ingredient name	Test	Result		Species	Exposure
1,2-benzisothiazol-3(2H)-one	-	Acute EC50 3.7 mg/l	-	Daphnia - Daphnia magna	48 hours
	-	Acute LC50 1.9 mg/l Fresh water	-	Fish - Oncorhynchus mykiss	96 hours
	-	Chronic IC50 0.8 mg/l	-	Algae	72 hours
sodium hydroxide	-	Acute EC50 >100 mg/l	-	Daphnia - Daphnia magna	48 hours
	-	Acute LC50 189 mg/L	-	Fish	48 hours

Other ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
1,2-benzisothiazol-3(2H)-one	-	-	Inherent

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
1,2-benzisothiazol-3(2H)-one	1.3	-	low

AOX : The product does not contain organically bound halogens which could lead to an AOX value in waste water.

13. DISPOSAL CONSIDERATIONS

Methods of disposal : Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

14. TRANSPORT INFORMATION

Regulation	UN number	Proper shipping name	Class	PG	Label	Additional information
ADR/RID	UN1719	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, BENZOISOTHIAZOLONE)	8	III		**Hazard identification number** 80 **Limited quantity** LQ7
GGVSE	UN1719	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, BENZOISOTHIAZOLONE)	8	III		**Hazard identification number** 80 **Limited quantity** LQ7
ADNR	UN1719	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, BENZOISOTHIAZOLONE)	8	III		**Hazard identification number** 80 **Limited quantity** LQ7
IMDG	UN1719	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, BENZOISOTHIAZOLONE)	8	III		**Emergency schedules (EmS)** F-A, S-B
IATA	UN1719	Caustic alkali liquid, n.o.s. (SODIUM HYDROXIDE, BENZOISOTHIAZOLONE)	8	III		**Passenger aircraft** 819: 5 L **Cargo aircraft** 821: 60 L

PG: Packing group

5.1.1.c Woo

Regulation	UN number	Proper shipping name	Class	PG	Label	Additional information

Slightly corrosive.
Has a slight odour.
Avoid temperatures below -10 °C.
Avoid heat above +40 °C.
Keep away from foodstuffs, acids and alkalis.

15. REGULATORY INFORMATION

EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Industrial applications.

Hazard symbol or symbols :



Harmful

Contains

1,2-benzisothiazol-3(2H)-one

Risk phrases : R22- Harmful if swallowed.
R41- Risk of serious damage to eyes.
R38- Irritating to skin.
R43- May cause sensitisation by skin contact.

Safety phrases : S24- Avoid contact with skin.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - Europe : R22- Harmful if swallowed.
R35- Causes severe burns.
R41- Risk of serious damage to eyes.
R38- Irritating to skin.
R43- May cause sensitisation by skin contact.
R50- Very toxic to aquatic organisms.

History

Date of printing : **2009-05-07**

Date of issue : **2009-05-07**

Date of previous issue : **2007-12-11**

Version : **2**

Indicates information that has changed from previously issued version.

5.1.1.c Woo

Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance.


5.1.1.c Woo

Safety Data Sheet

Material: 5.1.1.c Woo

5.1.1.c Woo

Version: 1.4 (REG_EUROPE) Date of print: 20.07.2011 Date of last alteration: 16.02.2011

1. Identification of the substance/preparation and company

1.1 Name of substance/preparation

Commercial product name: 5.1.1.c Woo

1.2 Use of substance / preparation

5.1.1.c Woo

1.3 Company name

5.1.1.c Woo

Manufacturer/distributor:
Street/POB-No.:
State/postal code/city:
Telephone:
Telefax:

Information about the Safety Data Sheet:

1.4 Emergency telephone number

Emergency Information (German): **plant fire brigade**
Emergency Information (internat.): **National Response Center**

5.1.1.c Woo

2. Hazards identification

2.1 Classification

Classification (67/548/EEC, 1999/45/EC):

R-Phrase	Description
R-	-

This product is not a dangerous preparation within the meaning of Directive 1999/45/EC.

2.2 Labelling

Labelling (67/548/EEC, 1999/45/EC):

R-Phrase	Description
R-	-

S-Phrase	Description
S-	-

Special identification instructions:
Safety data sheet available for professional users on request.

3. Composition/information on ingredients

3.1 Chemical characterization (preparation)

Polydimethylsiloxane and auxiliary , (emulsion in water)

3.2 Hazardous ingredients

EC-No.	CAS No.	Material	Content %	Warning Label (EC)	
			buiten reikwijdte verzoek	Symbol	R-Phrases*
	9005-00-9	alpha-octadecyl-omega-hydroxy-polyglycolether		Xn	R22-41
	69011-36-5	Tridecanol ethoxylate, branched with 3-5 EO		Xi	R41

*Classification codes are explained in section 16.

4. First-aid measures

4.1 General information:

In case of accident or if you feel unwell seek medical advice (show label or SDS where possible).

4.2 After inhalation

Provide fresh air.

4.3 After contact with the skin

Wipe off excess material with cloth or paper. Wash with plenty of water or water and soap. In the event of a visible skin change or other complaints, seek medical advice (show label or SDS where possible).

4.4 After contact with the eyes

Rinse immediately with plenty of water. Seek medical advice in case of continuous irritation.

4.5 After swallowing

Give several small portions of water to drink. Do not induce vomiting.

5. Fire-fighting measures

5.1 General information:

Product does not burn. Use extinguishing measures appropriate to the source of the fire.

5.2 Suitable extinguishing media

not applicable

5.3 Extinguishing media which must not be used for safety reasons

not applicable

5.4 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

not applicable

5.5 Special protective equipment for fire fighting

Use respiratory protection independent of recirculated air.

6. Accidental release measures

6.1 Personal precautions

If material is released indicate risk of slipping.

6.2 Environmental precautions

Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material (e.g. earth).

6.3 Methods for cleaning up

Take up mechanically and dispose of according to local/state/federal regulations. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner.

7. Handling and storage

7.1 General information:

Always stir well before use.

7.2 Handling

Precautions for safe handling:
Spilled substance increases risk of slipping.

Precautions against fire and explosion:
No special precautions against fire and explosion required.

7.3 Storage

Conditions for storage rooms and vessels:

.

Advice for storage of incompatible materials:
not applicable

Further information for storage:
Protect against sun. Protect against frost.

Minimum temperature allowed during storage and transportation: 0 °C

Maximum temperature allowed during storage and transportation: 35 °C

8. Exposure controls and personal protection equipment

8.1 Exposure limits

-

8.2 Exposure limited and controlled

8.2.1 Exposure in the work place limited and controlled

General protection and hygiene measures:
Observe standard industrial hygiene practices for the handling of chemical substances. Do not eat or drink when handling.

Personal protection equipment

Respiratory protection
not required .

Hand protection
Recommendation: Protective gloves made of butyl rubber , nitrile rubber protective gloves .

Eye protection
Recommendation: protective goggles .

8.2.2 Exposure to the environment limited and controlled

Prevent material from entering surface waters and soil.

9. Physical and chemical properties

9.1 General information

Physical state / form ..... : buiten reikwijdte verzoek
Colour ..... :
Odour ..... :

9.2 Important information about the protection of health, safety and the environment

Property:	Value:	Method:
Melting point / melting range ..... :	buiten reikwijdte verzoek	
Boiling point / boiling range ..... :		
Flash point ..... :		(ISO 3679)

Sustained combustibility	:	buiten reikwijdte verzoek	(ISO 9038)
Ignition temperature	:		
Lower explosion limit (LEL)	:		
Upper explosion limit (UEL)	:		
Vapour pressure	:		
Density	:		(DIN 12791)
Water solubility / miscibility	:		
pH-Value	:		(Indicator strips)
Viscosity (dynamic)	:		

9.3 Other information

Re 9.2 Flash Point: Substance exhibits no flashpoint until boiling commences.

10. Stability and reactivity

10.1 General information:

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

10.2 Conditions to avoid

none known

10.3 Materials to avoid

none known

10.4 Hazardous decomposition products

If stored and handled properly: none known . The following applies for the silicone content of the substance: Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

11. Toxicological information

11.1 General information:

According to our present state of knowledge no damaging effect expected when treated in accordance with standard industrial practices and local regulations where applicable.

11.2 Toxicological tests

Acute toxicity (LD50/LC50-values relevant to classification):

Exposition	Value/value range	Species	Source
oral	> 5000 mg/kg	rat (Limit Test)	test report
dermal	> 2000 mg/kg	rat (Limit Test)	test report

Primary irritation:

Exposition	Effect	Species/Testsystem	Source
to skin	not irritating	rabbit	Conclusion by analogy
to eyes	not irritating	rabbit	Conclusion by analogy

Sensitization:

Exposition	Effect	Test method	Species	Source
to skin	not sensitizing	Magnusson-Kligmann	guinea-pig	test report

Further information:

-

11.3 Experience with man

-

5.1.1.c Woo

11.4 Further toxicological information

-

12. Ecological information

12.1 Ecotoxicity

Species	Test method	Exp. time	Result	Source
zebra fish (Brachydanio rerio)	acute	96 h	350 mg/l (LC100)	test report
zebra fish (Brachydanio rerio)	acute	96 h	250 mg/l (LC50)	test report
zebra fish (Brachydanio rerio)	acute	96 h	180 mg/l (LC0)	test report

No expected damaging effects to aquatic organisms.

Effects in sewage treatment plants (bacteria toxicity: respiration-/reproduction inhibition):

Test system	Exp. time	Result	Source
sludge	3 h	> 320 mg/l (EC50)	test report

According to current knowledge adverse effects on water purification plants are not expected.

12.2 Mobility

-

12.3 Persistence and degradability

Biodegradation:

Method	Degree of elimination	Classification	Source
Inherent Biodegradability: Zahn-Wellens/EMPA Test	82 %, in 7 day(s)	Good elimination.	test report

Further information:
Silicone content: Elimination by adsorption to activated sludge.

12.4 Bio-accumulation potential

-

12.5 Other harmful effects

-

12.6 Additional information

BOD5-Value: 140 mg O2/l Substance (test report)

COD-Value: 580 mg O2/g Substance (test report)

General information:
Acute earthworm toxicity (14d): In limit test with 1000 mg/kg soil no toxic effect observed. No environmental problems expected if handled and treated in accordance with standard industrial practices and local regulations where applicable.

13. Disposal considerations

13.1 Material

Recommendation:
Dispose of according to regulations by incineration in a special waste incinerator. Observe local/state/federal regulations.

13.2 Uncleaned packaging

Recommendation:
Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

14. Transport information

14.1 Land transport ADR and RID

Road ADR:
Valuation .....: Not regulated for transport

Railway RID:
Valuation .....: Not regulated for transport

14.2 Transport by sea IMDG-Code

Valuation .....: Not regulated for transport

14.3 Air transport ICAO-TI/IATA-DGR

Valuation .....: Not regulated for transport

14.4 Transport/further information

Additional transport information:
Do not transport below melting temperature.

Informing dept. ref. to heading 14. Transport information:
5.1.1.c Woo

15. Regulatory information

15.1 National regulations

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

15.2 Other international regulations

Details of international registration status:
Listed on or in accordance with the following inventories:
AICS - Australia
EINECS - Europe
ENCS - Japan
TSCA - USA
ECL - Korea
PICCS - Philippines
IECSC - China

16. Other information

16.1 Material

The above information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations.Properties of the product are to be found in the respective product leaflet.

16.2 Further information:

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version. This version supersedes all previous versions.

R-Phrase	Description
R22 R41	Harmful if swallowed. Risk of serious damage to eyes.
R41	Risk of serious damage to eyes.

- End of Safety Data Sheet -

5.1.1.c Woo

5.1.1.c Woo

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier:
Product name: 5.1.1.c Woo

Synonyms, Trade Names: 5.1.1.c Woo

5.1.1.c Woo

Relevant identified uses of the substance or mixture and uses advised against:
Identified uses: 5.1.1.c Woo
Uses advised against: None known.

Details of the supplier of the safety data sheet:
Manufacturer:

5.1.1.c Woo

SECTION 2: Hazards identification

Classification of the substance or mixture:

The product has not been classified as hazardous according to the legislation in force.

Hazard summary:

Physical hazards:	None
Health hazards:	
Inhalation:	No specific symptoms noted.
Eye contact:	No specific symptoms noted.
Skin contact:	No specific symptoms noted.
Ingestion:	No specific symptoms noted.
Other Health Effects:	No other information noted.
Environmental hazards:	Not regarded as dangerous for the environment.

Label elements:

The product does not need to be labeled in accordance with EC directives or respective national laws.

Other hazards: No data available.

SECTION 3: Composition/information on ingredients

Mixtures:

General information: Aqueous emulsion of Polyorganosiloxanes.

Classification:

SECTION 4: First aid measures

General: Get medical attention if symptoms occur. Contaminated clothing to be placed in closed container until disposal or decontamination.

Description of first aid measures:

Inhalation: Not relevant.

Eye contact: In the event of contact with the eyes, rinse thoroughly with clean water. Continue to rinse for at least 15 minutes.

Skin contact: Remove contaminated clothing and shoes. Wash with soap and water.

Ingestion: Do not induce vomiting. Rinse mouth thoroughly.

Most important symptoms and effects, both acute and delayed: None known.

Indication of any immediate medical attention and special treatment needed:

Hazards: No specific recommendations.

Treatment: No specific recommendations.

SECTION 5: Firefighting measures

General fire hazards: No specific recommendations.

Extinguishing media:

Suitable extinguishing media: Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture: Combustible.

Advice for firefighters:

Special Fire Fighting Procedures: Water spray should be used to cool containers.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. See Section 8 of the MSDS for Personal Protective Equipment.

Environmental precautions: Collect spillage. Do not discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up: Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Container must be kept tightly closed. Absorb with sand or other inert absorbent. To clean the floor and all objects contaminated by this material, use an appropriate solvent.(cf. : § 9) Flush area with plenty of water. Incinerate in suitable combustion chamber.

Notification Procedures: Caution: Contaminated surfaces may be slippery. For waste disposal, see section 13 of the MSDS.

SECTION 7: Handling and storage:

Precautions for safe handling: No specific precautions.

Conditions for safe storage, including any incompatibilities: No special storage precautions noted. Material is stable under normal conditions. Avoid contact with oxidizing agents. Suitable containers: polyethylene. Plastic lined steel drum.

Specific end use(s): No data available.

SECTION 8: Exposure controls/personal protection

Control parameters:

Occupational exposure limits:

Exposure controls:
Appropriate engineering controls: No special precautions.

Individual protection measures, such as personal protective equipment:

General information: No specific precautions.

Eye/face protection: Safety Glasses

Skin protection:
Hand protection: Use protective gloves made of: Nitrile. Polyvinyl chloride (PVC).

Other: No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Respiratory Protection: No specific precautions.

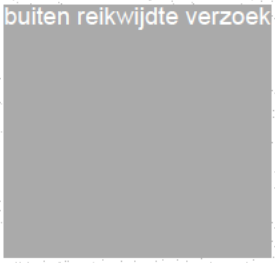
Hygiene measures: Provide eyewash station.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties:

Appearance:
Physical State:
Form:
Color:
Odor:
Odor Threshold:
pH:



buiten reikwijdte verzoek

Freezing point:
Boiling Point:
Flash Point:

Evaporation Rate:
Flammability (solid, gas):
Flammability Limit - Upper (%)–:
Flammability Limit - Lower (%)–:
Vapor pressure:
Vapor density (air=1):
Relative density:
Solubility(ies):
Solubility in Water:
Solubility (other):
Partition coefficient (n-octanol/water):
Autoignition Temperature:
Decomposition Temperature:
Viscosity:
Explosive properties:
Oxidizing properties:

SECTION 10: Stability and reactivity

Reactivity:	Not relevant.
Chemical stability:	Stable
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	No other information noted.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Ingestion:	No data available.
Skin contact:	No data available.
Eye contact:	No data available.

Information on toxicological effects:

Acute Toxicity:

Oral:
Product: No data available.

Specified substance(s):

Dermal:

Product: No data available.

Specified substance(s):

Inhalation:
Product: No data available.

Specified substance(s):

Repeated dose toxicity:
Product: No data available.

Specified substance(s):

Skin corrosion/irritation:
Product: No data available.

Specified substance(s):

Serious eye damage/eye irritation:
Product: No data available.

Specified substance(s):

Respiratory or skin sensitization:
Product: No data available.

Specified substance(s):

Germ cell mutagenicity:

In vitro:
Product: No data available.

Specified substance(s):

In vivo:
Product: No data available.

Specified substance(s):

Carcinogenicity:
Product: No data available.

Specified substance(s):

Reproductive toxicity:
Product: No data available.

Specified substance(s):

Specific target organ toxicity - single exposure:
Product: No data available.

Specified substance(s):

Specific target organ toxicity - repeated exposure:
Product: No data available.

Specified substance(s):

Aspiration hazard:
Product: No data available.

Specified substance(s):

Other adverse effects:

SECTION 12: Ecological information

Toxicity:

Acute toxicity:

Fish:
Product: No data available.

Specified substance(s):

Aquatic invertebrates:
Product: No data available.

Specified substance(s):

Chronic Toxicity:

Fish:
Product: No data available.

Specified substance(s):

Aquatic invertebrates:
Product: No data available.

Specified substance(s):

Toxicity to Aquatic Plants:
Product: No data available.

Specified substance(s):

Persistence and degradability:

Biodegradation:
Product: No data available.

Specified substance(s):

BOD/COD ratio:
Product: No data available.

Specified substance(s):

Bioaccumulative potential:

Product: No data available.

Specified substance(s):

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments:

Results of PBT and vPvB assessment: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Waste treatment methods:

General information: The user's attention is drawn to the possible existence of local regulations regarding disposal.

Disposal Methods: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Incinerate.

Contaminated packages should be as empty as possible. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Recycle following cleaning or dispose of at an authorised site.

European Waste Codes:

SECTION 14: Transport information

This material is not subject to transport regulations.

Environmental hazards: Not regulated.

Special precautions for user: No special precautions.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

National Regulations:

Chemical safety assessment: No data available.

SECTION 16: Other information

Revision Information: Not relevant.

Key literature references and sources for data: No data available.

Wording of the R-phrases and H-statements in section 2 and 3: None

Training information: No data available.

Inventory Status

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EU EINECS List:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory

Issue Date: 10.08.2011
SDS No:

Disclaimer:	The information given is based on data available for the material, the components of the material, and similar materials. The information is believed to be correct. It is given in good faith. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

5.1.1.c Woo

5.1.1.c Woo

SAFETY DATA SHEET

Section 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY UNDERTAKING.

TRADE NAME (AS LABELED): 5.1.1.c Woo

CHEMICAL FAMILY: 5.1.1.c Woo
CAS NUMBER: Mixture
MSDS SHEET NUMBER: 5.1.1.c Woo

SUPPLIERS NAME:
ADDRESS:

BUSINESS PHONE:
EMERGENCY PHONE:
VALIDATION DATE:

INTERNATIONAL INVENTORIES:
Canada (DSL): Listed
China (CIS): Listed
Australia (AICS): Listed
Europe (EINECS): Listed as Monomers
Japan (MITI/ENCS): Not Listed
Korea (KECI): Listed
Philippines (PICCS): Listed

Section 2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
Appearance: Liquid
Odor: Mild
Signal Word: Caution

Precautions:
Wear protective equipment when handling. Use only with adequate ventilation. Wash thoroughly after handling. Do not get in eyes or skin. Do not breathe vapor, mist, or dust. Avoid prolonged or repeated contact with skin. Do not swallow.

Potential acute and chronic health effects:
HAZARD STATEMENTS: Potential Health Effects (ACUTE AND CHRONIC):
OVEREXPOSURE MAY CAUSE DAMAGE TO,
DISORDERS OF, OR ADVERSELY AFFECT THE FOLLOWING SYSTEMS, FUNCTIONS, ORGANS:
None currently known.

Section 2. HAZARDS IDENTIFICATION Continued.

OSHA/HCS Status: This material is not considered hazardous OSHA Hazard Communication Standard (29 CFR 1910.1200)

Eyes Eye contact with product may cause mild irritation.

Inhalation No hazard expected by this route in normal use.

Ingestion Ingestion may cause irritation.

Skin No hazard expected by this route in normal use.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS NUMBER	MAX Percentage%	EXPOSURE LIMITS TWA/TLV	STEL	CEIL	SKIN AGENT
No Hazardous Ingredients According to Manufacture	Mixture	buiten reikwijdte verzoek	ppm	ppm	ppm	

Section 4. FIRST AID MEASURES

EYE CONTACT:
Immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart to ensure flushing of entire surface. Call a physician.

SKIN CONTACT:
Immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse. Call a physician.

INHALATION:
Remove to fresh air. If not breathing give artificial respiration, preferably mouth to mouth. If breathing is difficult give oxygen. Call a physician.

INGESTION:
If swallowed, DO NOT induce vomiting unless so instructed by physician or poison control center. If vomiting occurs spontaneously, keep head below hips to prevent breathing of vomit into lungs. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Section 5. FIRE-FIGHTING MEASURES

Flash Point (METHOD):	N/A
Auto-Ignition	Not Available
Flammable Limits	Not Available
Extinguishing Media	Dry chemical, foam, carbon Dioxide
Special Fire Fighting Procedures	Prevent human exposure to fire, fumes, smoke, and products of Combustion. Evacuate non-essential personnel. Firefighters should Wear full face, self-contained apparatus and impervious protective clothing.

Section 5. FIRE-FIGHTING MEASURES Continued.

Unusual fire and Explosion Hazards: Product may produce a floating fire

.

Section 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Personal precautions
Evacuate non-essential personnel, eliminate ignition sources, and wear protective equipment (See Section VIII). Shut off source of leak only if safe to do so. Wear respiratory equipment if exposure limits are exceeded.

Contain spill
If liquid, soak up with inert absorbent. Sweep, shovel, or pick up and return to dry, clean container.

Disposal Method
Dispose of material in accordance with all Federal, State and local regulations. Local regulations may be more stringent than Federal or State

Section 7. HANDLING AND STORAGE

HANDLING
Wear protective equipment when handling. Use only with adequate ventilation. Wash thoroughly after handling. Do not get in eyes or skin. Do not breathe vapor, mist, or dust. Avoid prolonged or repeated contact with skin. Do not swallow. For industrial use only. ATTENTION: This container considered hazardous when emptied. Since emptied container contains product residues (vapor or liquid), all labeled hazard precautions must be observed.

STORAGE: For Industrial use only. Keep heat, lights, fire, and sparks away. Keep container closed when not in use. Store in a cool dry place. Keep out of reach of children.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:
Mechanical: General ventilation is usually adequate.
Mechanical ventilation may be required to maintain exposure levels below limits.

RESPIRATORY PROTECTION: None normally required. If exposure limits are exceeded, or if exposure may occur, use a NIOSH/MSHA respirator approved for your conditions of exposure. Refer to the most recent NIOSH publications concerning chemical hazards, or consult your safety equipment supplier. Respiratory protection programs must be in compliance with OSHA requirements in 29 CFR 1910.134. For emergencies, a NIOSH/MSHA approved positive pressure-breathing apparatus should be readily available.

EYE PROTECTION: Safety Glasses. Always wear eye protection when working with chemicals. Do Not wear contact lenses when working with chemicals.

SKIN PROTECTION: Impervious gloves. Clean protective body covering.

OTHER PROTECTIVE EQUIPMENT:
Safety shower, eye wash fountain, and washing facilities should be readily available.

5.1.1.c Woo

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION Continued.

WORK HYGIENIC PRACTICES: Avoid contact with skin, eyes, and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take First Aid action shown in Section IV. Launder contaminated clothing before reuse.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:
Odor:
pH: aqueous approx.
Boiling point/boiling range:
Freezing Point:
Flash Point:
Vapor Pressure: (MM HG.):
Vapor Density: (Air =1)
Solubility In Water:
Specific Gravity:(H2O=1):
Evaporation Rate: (Water =1
Percent Volatile by Volume:

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Section 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

MATERIALS TO AVOID: Inorganic acids Inorganic bases.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Thermal decomposition or combustion (burning) can produce carbon monoxide Miscellaneous organic compounds, some possibly toxic.

HAZARDOUS POLYMERIZATION: Will not occur

Section 11. TOXICOLOGICAL INFORMATION

Not Available.

Section 12. ECOLOGICAL INFORMATION

Not Available.

Section 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Follow applicable local, state, and federal regulations.

Section 14. TRANSPORT INFORMATION

DOT (Department of Transportation)
Proper Shipping Name: UNCLASSIFIED
Hazard Class: N/A
UN/NA Number: N/A

Section 14. TRANSPORT INFORMATION Continued.

Packaging Group: N/A
Label Requirements: None
Reportable Quantity (RQ): None

Section 15. REGULATORY INFORMATION

UNITED STATES
HCS CLASSIFICATION:
HMIS

HEALTH:	1	FLAMMABILITY	0	PHYSICAL HAZARDS	0	PPE	X

NFPA

HEALTH:	1	FLAMMABILITY	0	REACTIVITY	0	OTHER	

S.A.R.A. Information
HAZARDS: N/A
PHYSICAL DATA: Liquid

EPCRA APPLIES:
312: N
313: N
Clean Air Act: N/D
State Regulations: N/D

TSCA INVENTORY STATUS: Listed
TSCA, 40 CFR 710: Sources of the raw materials used in this mixture assure that all chemical ingredients present are in compliance with Section 8(b) Chemical Substance Inventory, or are otherwise in compliance with TSCA.

WHMIS CLASSIFICATION: Not listed on Canada's Ingredient Disclosure List.

REACH CLASSIFICATION: This product has no substances classified in the Annex I of Directive 67/548/EEC.

Safety Phrases
S1/2: Keep locked up and out of the reach of children.
S22: Do not breathe dust.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (Show label).

GHS
CLASSIFICATION

FLAMMABLE LIQUIDS	Category: None
SERIOUS EYE DAMAGE	Category: None
SKIN CORROSION/IRRITATION:	Category None
ASPIRATION HAZARD	Category: None
SPECIFIC TARGET TOXICITY:	Category: None
SIGNAL WORD	CAUTION

Section 16. OTHER INFORMATION

The information provided in this Material Safety data sheet has been obtained from sources believed to be reliable. 5.1.1.c Woo provides no warranties, either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. 5.1.1.c Woo 5.1.1.c Woo knows of no medical condition, other than those noted on this material safety data sheet, which are generally recognized as being aggravated by exposure to this product.

Origiginal Date: 101111
Date of Revision: 1011227
Sections: 9
End of MSDS