Supercedes date 27/Jun/2013



# Safety Data Sheet HR-2510

# 1. Identification of the substance/preparation and of the Company/undertaking

#### 1.1 Product identifier

**Product name** HR-2510

Product No 81006003, 81006005, 81006006, 81006004 Product trade name

Product code PID12437 Norway Pr. no. 22594

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

Recommended use Hydrogen Sulphide Scavenger.

Consumer use Uses advised against

# 1.3 Details of the supplier of the safety data sheet

**Supplier** 

M-I Drilling Fluids UK Limited C/O Schlumberger **Enterprise Drive** Westhill Industrial Estate Westhill, AB32 6TQ Scotland UK +47 51577424 MISDS@slb.com

### 1.4 Emergency Telephone Number

Emergency telephone - (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600

Norway Poison information centre: +47 22 59 13 00

# 2. Hazards identification

# 2.1 Classification of the substance or mixture

# Regulation (EC) No. 1272/2008

#### **Health hazards**

Acute oral toxicity	Category 4
Acute inhalation toxicity - vapor	Category 2
Skin sensitisation	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

**Environmental hazards** Not classified

**Physical Hazards** Not classified

### 2.2 Label Elements



# **Hazard statements**

DANGER

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction

H330 - Fatal if inhaled

H372 - Causes damage to organs through prolonged or repeated exposure

# Precautionary Statements - EU (§28, 1272/2008)

P271 - Use only outdoors or in a well-ventilated area

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P310 - Immediately call a POISON CENTER or doctor/ physician

P501 - Dispose of contents/container in accordance with local regulations.

#### Supplementary precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapours/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P284 - Wear respiratory protection

P330 - Rinse mouth

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention

P363 - Wash contaminated clothing before re-use

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Contains

# 2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol

2-aminoethanol

Formaldehyde (impurity)

# 2.3 Other data

Not classified as PBT/vPvB by current EU criteria



# 3. Composition/information on ingredients

#### 3.1 Substances

Not Applicable

#### 3.2 Mixtures

Component	EC-No.	CAS-No	Weight % - range	Classification (67/548)	Classification (Reg. 1272/2008)	REACH registration number
2,2',2"-(hexahydro-1,3, 5-triazine-1,3,5-triyl)tri ethanol	225-208-0	4719-04-4	30-60	Xi; R43 Xn; R22 T; R23, R48/23	Acute Tox. 4 (H302) Acute Tox. 2 (H330) Skin Sens. 1 (H317) STOT RE 1 (H372)	01-2119529226-41-x xxx
2-aminoethanol	205-483-3	141-43-5	<2	Xn; R20/21/22 C; R34	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Corr. 1B (H314)	01-2119486455-28-x xxx
Formaldehyde (impurity)	200-001-8	50-00-0	<1	T; R23/24/25 C; R34 R40 R43	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Skin Sens. 1 (H317) Carc. 2 (H351) STOT SE 3 (H335i)	No data available

#### Comments

The product contains other ingredients which do not contribute to the overall classification. Formaldehyde is not present as a substance. It is formed during decomposition.

# 4. First aid measures

#### 4.1 First Aid

Inhalation Call a physician or poison control centre immediately. Move the exposed person to fresh air

at once. Keep at rest. If breathing is difficult, (trained personnel should) give oxygen.

**Ingestion** Rinse mouth. Never give anything by mouth to an unconscious person. Do not induce

vomiting without medical advice. Seek medical attention at once.

Skin contact Wash off immediately with soap and plenty of water removing all contaminated clothes and

shoes. Seek medical attention at once.

Eye contact Remove contact lenses. Immediately flush eyes with water for 15 minutes while holding

eyelids open. Seek medical attention.

# 4.2 Most important symptoms and effects, both acute and delayed

General advice The severity of the symptoms described will vary dependant of the concentration and the

length of exposure. If adverse symptoms develop, the casualty should be transferred to

hospital as soon as possible.



Main symptoms

**Inhalation** Please see Section 11. Toxicological Information for further information.

**Ingestion** Please see Section 11. Toxicological Information for further information.

**Skin contact** Please see Section 11. Toxicological Information for further information.

**Eye contact** Please see Section 11. Toxicological Information for further information.

# 4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

# 5. Fire-fighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water spray, dry chemical, carbon dioxide (CO<sub>2</sub>), or foam.

#### Extinguishing media which shall not be used for safety reasons

Do not use halon type extinguisher.

### 5.2 Special hazards arising from the substance or mixture

#### Unusual fire and explosion hazards

None known.

#### **Hazardous combustion products**

Fire or high temperatures create:, Carbon oxides (COx), Nitrogen oxides (NOx), Formaldehyde.

# 5.3 Advice for firefighters

#### Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

#### **Special Fire-Fighting Procedures**

Containers close to fire should be removed immediately or cooled with water.

# 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not get on skin or clothing. Wash thoroughly after handling. Do not breathe vapors or spray mist. Use personal protective equipment. See also section 8.

### 6.2 Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.

#### **Environmental exposure controls**

Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.



# 6.3 Methods and materials for containment and cleaning up

#### **Methods for Containment**

Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

#### Methods for cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

#### 6.4 Reference to other sections

See section 13 for more information.

# 7. Handling and storage

#### 7.1 Precautions for safe handling

#### Handling

Handle in accordance with good industrial hygiene and safety practice. Do not breathe vapors or spray mist. Avoid contact with skin and eyes. Avoid spills and splashing during use. Persons susceptible to allergic reactions should not handle this product.

#### Hygiene measures

Use good work and personal hygiene practices to avoid exposure When using do not smoke, eat or drink. Wash hands and face before breaks and immediately after handling the product. Remove contaminated clothing.

### 7.2 Conditions for safe storage, including any incompatibilities

**Technical measures/precautions** Ensure adequate ventilation.

Storage precautions Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid heat, flames

and other sources of ignition. Avoid frost. Avoid contact with: Strong acids. Strong oxidising

agents

Storage class Toxic storage.

7.3 Specific end uses

See Section 1.2.

# 8. Exposure controls/personal protection

## 8.1 Control parameters

**Exposure limits** Formaldehyde is not present as a substance. It is formed during decomposition.



Component	EU OEL - Third List	Austria	Australia	Denmark
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)tri ethanol	Not determined	Not determined	Not determined	Not determined
2-aminoethanol	3 ppm STEL 7.6 mg/m³ STEL 1 ppm TWA 2.5 mg/m³ TWA Possibility of significant uptake through the skin	3 ppm STEL 7.6 mg/m³ STEL 1 ppm TWA 2.5 mg/m³ TWA	6ppmSTEL 15mg/m³STEL 3ppmTWA 7.5mg/m³TWA	1 ppm TWA 2.5 mg/m³ TWA Potential for cutaneous absorption
Formaldehyde (impurity)	Not determined	0.5 ppm TWA; 0.6 mg/m³ TWA	2ppmSTEL 2.5mg/m³STEL 1ppmTWA 1.2mg/m³TWA probable carcinogen	0.3 ppm Ceiling; 0.4 mg/m³ Ceiling

Component	Malaysia	France	Germany	Hungary
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)tri ethanol	Not determined	Not determined	Not determined	Not determined
2-aminoethanol	3 ppm TWA 7.5 mg/m³ TWA	3ppmSTEL 7.6mg/m³STEL 1 ppmTWA 2.5 mg/m³TWA	2 ppm TWA 5.1 mg/m³ TWA	2.5mg/m³TWA 7.6mg/m³STEL
Formaldehyde (impurity)	0.3 ppm Ceiling 0.37 mg/m³ Ceiling	0.5 ppm TWA	0.3 ppm TWA MAK; 0.37 mg/m³ TWA MAK	0.6 mg/m³ TWA

Component	New Zealand	Italy	Netherlands	Norway
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)tri ethanol	Not Determined	Not determined	Not determined	Not determined
2-aminoethanol	6 ppm STEL 15 mg/m³ STEL 3 ppm TWA 7.5 mg/m³ TWA	Not determined	7.6mg/m³STEL 2.5 mg/m³	1 ppm TWA 2.5 mg/m³ TWA 3 ppm STEL 5 mg/m³ STEL Skin
Formaldehyde (impurity)	0.5 ppm TWA 0.33 ppm TWA sensitiser Known or presumed human carcinogen 1 ppm Ceiling	0.3 ppm Ceiling; 0.37 mg/m³ Ceiling	0.5mg/m³STEL 0.15 mg/m³	0.5 ppm TWA 0.6 mg/m³ TWA 1.5 ppm STEL 1.8 mg/m³ STEL 1 ppm Ceiling; 1.2 mg/m³ Ceiling Carcinogen Sensitizing substance

Component	Poland	Portugal	Romania	Russia
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)tri	Not determined	Not determined	3mg/m <sup>3</sup> STEL	Not determined
ethanol				
2-aminoethanol	7.5 mg/m <sup>3</sup> STEL NDSCh	Skin	3ppmSTEL	0.5 mg/m <sup>3</sup> MAC
	2.5 mg/m³ TWA NDS	3 ppm STEL VLE-CD	7.6mg/m³STEL	Skin
		7.6 mg/m³ STEL	1ppmTWA	
		VLE-CD	2.5mg/m³TWA	
		1 ppm TWA indicative		
		limit value		
		2.5 mg/m <sup>3</sup> TWA		
		indicative limit value		
Formaldehyde (impurity)	0.5 mg/m³ TWA	0.3 ppm Ceiling	1 ppm TWA; 1.20 mg/m <sup>3</sup>	0.5 mg/m³ MAC (vapor)
			TWA	

Component	Spain	Switzerland	Turkey	UK
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)tri	Not determined	Not determined	Not determined	Not determined
ethanol				



2-aminoethanol	3 ppm STEL	4 ppm STEL	3 ppm STEL	3 ppm STEL
	7.5 mg/m <sup>3</sup> STEL	10 mg/m <sup>3</sup> STEL	7.6 mg/m <sup>3</sup> STEL	7.6 mg/m <sup>3</sup> STEL
	Skin	2 ppm TWA MAK	Skin	Skin
	1 ppm TWA VLA-ED	5 mg/m <sup>3</sup> TWA MAK	1 ppm TWA	1 ppm TWA
	2.5 mg/m³ TWA VLA-ED		2.5 mg/m³ TWA	2.5 mg/m³ TWA
Formaldehyde (impurity)	0.3 ppm STEL; 0.37	0.3 ppm TWA; 0.37	Not determined	2 ppm TWA; 2.5 mg/m <sup>3</sup>
	mg/m³ STEL	mg/m³ TWA		TWA

### **Derived No Effect Level (DNEL)**

#### Long term exposure local effects

2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol

Inhalation 0.2 mg/m³

2-aminoethanol

Inhalation 3.3 mg/m<sup>3</sup>

#### Long term exposure systemic effects

#### 2-aminoethanol

Dermal 1 mg/kg

# Predicted No Effect Concentration (PNEC)

2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol Fresh Water 0.0066 mg/l Sea Water 0.00066 mg/l Fresh water sediment 0.0304 mg/kg Sea sediment 0.00304 mg/kg Soil 0.00219 mg/kg Impact on Sewage Treatment 5.5 mg/l Intermittent release 0.066 mg/l 2-aminoethanol Fresh Water 0.085 ma/l

 Fresh Water
 0.085 mg/l

 Sea Water
 0.0085 mg/l

 Fresh water sediment
 0.434 mg/kg

 Sea sediment
 0.0434 mg/kg

 Soil
 0.0367 mg/kg

 Impact on Sewage Treatment
 100 mg/l

 Intermittent release
 0.028 mg/l

### 8.2 Exposure controls

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

# Engineering measures to

# reduce exposure

Ensure adequate ventilation. Local exhaust ventilation. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

#### Personal protective equipment



**Eye protection** Chemical splash goggles and face shield.

Hand protection Impervious gloves made of:, Nitrile, Neoprene, Butyl, Rubber, Be aware that liquid may

penetrate the gloves. Frequent change is advisable.

triazine containing product produces a vapour, a chemical respirator with A1 + Formaldehyde and P3 particulate pre-filter combination would be required.

Skin and body protection Wear suitable protective clothing, Eye wash and emergency shower must be available at

the work place.

Hygiene measures Wash hands before eating, drinking or smoking, Remove and wash contaminated clothing

before re-use.









# 9. Physical and chemical properties

@ 1%

@ 20 °C

Seta closed cup

9.1 Information on basic physical and chemical properties

Physical state Liquid

Appearance No information available

**Odour** Amine

Colourless - Pale yellow

Odor threshold Not applicable

<u>Property</u> <u>Values</u> <u>Remarks</u>

Not Applicable

Boiling point/range No information available

Flash Point > 70 °C / > 158 °F

**Evaporation rate** No information available

Flammability (solid, gas) Flammability Limits in Air

Upper flammability Limit
Lower flammability limit
Not applicable
Not applicable

Vapor pressure
Vapor density
Specific gravity
Bulk density
Relative density
Water solubility
Solubility in other solvents
No information available
No information available
No information available
completely soluble
No information available

Autoignition temperature Not Applicable

**Decomposition temperature** No information available

Kinematic viscosity <40 cPs

Viscosity, dynamic No information available

Log Pow Not determined

**Explosive properties** Not Applicable **Oxidizing properties** None known.

9.2 Other information



Pour pointNo information availableMolecular weightNo information available

VOC content(%) None

**Density VALUE** 1.10  $\pm$  0.03 g/ml @ 25°C

# 10. Stability and reactivity

#### 10.1 Reactivity

Contact with strong acids develops formaldehyde.

### 10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

#### 10.3 Possibility of Hazardous Reactions

#### **Hazardous polymerization**

Hazardous polymerisation does not occur.

#### 10.4 Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid frost.

### 10.5 Incompatible materials

Strong oxidising agents. Strong acids.

# 10.6 Hazardous decomposition products

See Section 5.2.

# 11. Toxicological information

#### 11.1 Information on toxicological effects

#### **Acute toxicity**

Product information This product may contain or release trace amounts of formaldehyde. The International

Agency for Research on Cancer (IARC) has classified formaldehyde as a Group 1carcinogen (limited evidence in humans, sufficient evidence in animals). Exposure to formaldehyde has been linked to adverse reproductive effects in some human and animal studies. In other reproductive studies, however, no adverse effects were noted. (Meditext).

Formaldehyde may also cause skin sensitisation (allergic reaction).

**Inhalation** Fatal if inhaled. May cause damage to organs through prolonged or repeated exposure.

**Eye contact** MAY CAUSE EYE IRRITATION.

**Skin contact** Causes skin irritation. May cause an allergic skin reaction.

**Ingestion** Harmful if swallowed.

Unknown acute toxicity Not Applicable.



Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethan	= 763 mg/kg ( Rat )	> 2 g/kg ( Rat )	= 0.371mg/L (dust/mist) Rat =
ol			4h
2-aminoethanol	= 1720 mg/kg ( Rat )	= 1 mL/kg ( Rabbit ) = 1000	No data available
		mg/kg ( Rabbit )	
Formaldehyde (impurity)	= 600 mg/kg ( Rat )	= 270 mg/kg ( Rabbit )	= 0.578 mg/L ( Rat ) 4 h

**Sensitisation** May cause allergic skin reaction.

Mutagenic effects This product does not contain any known or suspected mutagens.

**Carcinogenicity** Formaldehyde is listed by IARC in Group 1 as carcinogenic to humans.

**Reproductive toxicity** This product does not contain any known or suspected reproductive hazards.

Routes of exposure Ingestion. Inhalation. Skin contact. Eye contact.

Routes of entry Ingestion. Inhalation. Skin contact.

Specific target organ toxicity (single Not classified

exposure)

Specific target organ toxicity

(repeated exposure)

Category 1.

Target organ effects Respiratory system.

**Aspiration hazard** Not Applicable.

# 12. Ecological information

### 12.1 Toxicity

The product component(s) are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

Toxicity to algae

See component information below.

Toxicity to fish

See component information below.

Toxicity to daphnia and other aquatic invertebrates

See component information below.



\_\_\_\_\_

Component	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
2,2',2"-(hexahydro-1,3,5-triazine-1,3 ,5-triyl)triethanol	No information available	No information available	No information available
2-aminoethanol	= 3684 mg/L LC50 Brachydanio rerio 96 h 114 - 196 mg/L LC50 Oncorhynchus mykiss 96 h > 200 mg/L LC50 Oncorhynchus mykiss 96 h 300 - 1000 mg/L LC50 Lepomis macrochirus 96 h = 227 mg/L LC50 Pimephales promelas 96 h	= 15 mg/L EC50 Desmodesmus subspicatus 72 h	= 65 mg/L EC50 Daphnia magna 48 h
Formaldehyde (impurity)	23.2 - 29.7 mg/L LC50 Pimephales promelas 96 h = 41 mg/L LC50 Brachydanio rerio 96 h 0.032 - 0.226 mL/L LC50 Oncorhynchus mykiss 96 h 100 - 136 mg/L LC50 Oncorhynchus mykiss 96 h = 1510 µg/L LC50 Lepomis macrochirus 96 h 22.6 - 25.7 mg/L LC50 Pimephales promelas 96 h	No information available	= 2 mg/L LC50 Daphnia magna 48 h 11.3 - 18 mg/L EC50 Daphnia magna 48 h

# 12.2 Persistence and degradability

Product is biodegradable.

# 12.3 Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

# 12.4 Mobility in soil

#### Mobility

Soluble in water.

# 12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

# 12.6 Other adverse effects.

None known.

# 13. Disposal considerations

# 13.1 Waste treatment methods



Waste from residues / unused

products

Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be transported/delivered using a registered waste carrier for local

recycling or waste disposal.

**EWC waste disposal No.** According to the European Waste Catalogue, Waste Codes are not product specific, but

application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: EWC waste disposal No: 07 01 04 Waste Code: 7152 Organic waste without halogen.

•

# 14. Transport information

#### 14.1 UN number

UN/ID No. (ADR/RID/ADN/ADG) UN2810 UN No. (IMDG) UN2810 UN No. (ICAO) UN2810

### 14.2 Proper shipping name

TOXIC LIQUID, ORGANIC, N.O.S. (Hexahydro-1,3,5-tris(2-hydroxyethyl)-sym-triazine)

#### 14.3. Hazard class(es)

ADR/RID/ADN/ADG Hazard class 6.1
IMDG Hazard class 6.1
ICAO Hazard class/division 6.1

#### 14.4 Packing group



# 14.5 Environmental hazard

Nο

### 14.6 Special precautions

Hazard ID 60
EmS (IMDG) F-A, S-A
Emergency action code 2X
Tunnel restriction code (D/E)



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

Please contact MISDS@slb.com for info regarding transport in Bulk.

# 15. Regulatory information

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

Australian Standard for the Uniform Scheduling of Drugs and Poisons

2-aminoethanol

Schedule 4

Schedule 6

Schedule 5

Formaldehyde (impurity)

Schedule 6

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008.

#### International inventories

USA, Toxic Substances Control Act inventory (TSCA)	Complies
European Union - EINECS and ELINCS	Complies
Canada, Domestic Substance List (DSL)	Complies
Philippines (PICCS)	Complies
Inventory - Japan - Existing and New Chemicals list	Complies
China (IECSC)	Complies
Australia (AICS)	Complies
Korea (KECL)	Complies
Inventory - New Zealand - Inventory of Chemicals (NZIoC)	Complies

Contact REACH@miswaco.slb.com for REACH information.

# 15.2 Chemical Safety Report

No information available

16. Other information

Prepared by Global Regulatory Compliance - Chemicals (GRC - Chemicals) , Sandra McWilliam

Supercedes date 27/Jun/2013

Revision date 14/Jan/2016

Version 8



The following sections have been revised:

This SDS have been made in a new database and therefore a new layout. No changes with regard to classification have been made.

#### Text of R phrases mentioned in Section 3

R22 - Harmful if swallowed

R23 - Toxic by inhalation

R34 - Causes burns

R40 - Limited evidence of a carcinogenic effect

R43 - May cause sensitization by skin contact

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed

R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation

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

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction

H330 - Fatal if inhaled

H372 - Causes damage to organs through prolonged or repeated exposure

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H312 - Harmful in contact with skin

H314 - Causes severe skin burns and eye damage

H331 - Toxic if inhaled

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

H351 - Suspected of causing cancer

#### Disclaimer

The information contained herein is considered in good faith as reliable of the date issued and is based upon on measurements, tests or data derived from supplier's own study or furnished by others. In providing this SDS information, Supplier makes no express or implied warranties as to the information or product; merchantability or fitness of purpose; any express or implied warranty; or non-infringement of intellectual property rights; and supplier assumes no responsibility for any direct, special or consequential damages, results obtained, or the activities of others. To the maximum extent permitted by law, supplier's warranty obligations and buyer's sole remedies are as stated in separate agreement between the parties.