

Prepared according to Commission Regulation (EU) No 453/2010.

Section 1

Identification of substance/mixture and of the company/undertaking

#### 1.1 Product Identifier

# **LUBRIZOL® 5703**

Synonyms

None.

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

Relevant identified uses (see section 7.3 for information on REACH registered uses)

Antiwear hydraulic oil additive.

## 1.3 Details of the supplier of the safety data sheet

The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, Ohio 44092 Tel: (440) 943-4200

E-mail contact

EUSDS@lubrizol.com

## 1.4 Emergency Telephone number

FOR TRANSPORT EMERGENCY call CHEMTREC: (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)

Section 2

**Hazards Identification** 

#### 2.1 Classification of the substance or mixture

#### (EC) No 1272/2008

Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411

## 67/548/EC or 1999/45/EC

N

Xi

R38

R41 R51/53

For a full text of R- and H- phrases: See section 16

## 2.2 Label elements

## (EC) No 1272/2008





Danger.

Causes skin irritation.

Causes serious eye damage.

Toxic to aquatic life with long lasting effects.

Wear protective gloves / eye protection / face protection. Wash thoroughly after handling. Avoid release to the environment.

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

IF SWALLOWED: Call a poison center or doctor if exposed or you feel unwell.

If exposed or concerned: Get medical attention.

Store away from oxidizers.

All disposal practices must be in accordance with local, national and international regulations.

## Supplemental label information

Contains (Substituted triazole). May produce an allergic reaction.

### 2.3 Other hazards

None identified.

**Registration Number** 

EC No.

 $\begin{bmatrix} 2012/2/15 \end{bmatrix} \\ \text{Composition/Information on Ingredients}$ 

Percentage (by wt.)

Name

## 3.2 Mixtures (EC) No 1272/2008

EC No.	Registration Number	Percentage (by wt.)	Name	Classification
224-235-5	01-2119493635-27	From 40 to 49.9 percent	Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)-	Aquatic Chronic 2; H411 Eye Dam. 1; H318
204-884-0	01-2119490822-33	From 20 to 29.9 percent	2,6-Di-tert-butylphenol	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Skin Irrit. 2; H315
202-908-4	Not Available	From 1 to 4.9 percent	Triphenyl phosphite	Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Eye Irrit. 2; H319 Skin Irrit. 2; H315
298-637-4	Not Available	From 1 to 4.9 percent	Benzenesulfonic acids, di(C10-18) alkyl derivative calcium salts	Eye Irrit. 2; H319
265-198-5	Not Available	From 0.1 to 0.9 percent	Naphtha (petroleum), heavy aromatic	Aquatic Chronic 2; H411 Asp. Tox. 1; H304 Eye Irrit. 2; H319 Flam. Liq. 3; H226
310-154-3	01-2119513207-49	From 0.1 to 0.9 percent	Dodecylphenol, mixed isomers (branched)	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Eye Irrit. 2; H319 Repr. 2; H361 Skin Irrit. 2; H315
279-503-4	Not Available	From 0.1 to 0.9 percent	1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-	Aquatic Chronic 2; H411 Skin Irrit. 2; H315 Skin Sens. 1; H317
279-514-4	Not Available	From 0.1 to 0.9 percent	1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-	Aquatic Chronic 2; H411 Skin Irrit. 2; H315 Skin Sens. 1; H317
203-632-7	Not Available	From 0.1 to 0.9 percent	Phenol	Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 Eye Dam. 1; H318 Muta. 2; H341 Skin Corr. 1B; H314 STOT RE 2; H373
201-807-2	Not Available	< 0.1%	Phenol, 2-(1,1-dimethylethyl)-	Acute Tox. 3; H311 Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Eye Irrit. 2; H319 Skin Irrit. 2; H315
211-989-5	Not Available	< 0.1%	2,4,6-Triisopropylphenol	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Eye Irrit. 2; H319
67/548/EC or				
EC No.	Registration Number	Percentage (by wt.)	Name	Classification 67/548/EC
224-235-5	01-2119493635-27	From 40 to 49.9 percent	Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)-	N Xi R41 R51/53
204-884-0	01-2119490822-33	From 20 to 29.9 percent	2,6-Di-tert-butylphenol	N Xi R38 R50/53
202-908-4	Not Available	From 1 to 4.9 percent	Triphenyl phosphite	N Xn R22 R36/38 R50/53
298-637-4	Not Available	From 1 to 4.9 percent	Benzenesulfonic acids, di(C10-18) alkyl derivative calcium salts	Xi R38 R53
265-198-5	Not Available	From 0.1 to 0.9 percent	Naphtha (petroleum), heavy aromatic	N Xn R36/38 R51/53 R65
310-154-3	01-2119513207-49	From 0.1 to 0.9 percent	Dodecylphenol, mixed isomers (branched)	N Xn R36/38 R50/53 R62
279-503-4	Not Available	From 0.1 to 0.9 percent	1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-	N Xi R38 R43 R51/53
279-514-4	Not Available	From 0.1 to 0.9 percent	1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-	N Xi R38 R43 R51/53
203-632-7	Not Available	From 0.1 to 0.9 percent	Phenol	T

Classification

R23/24/25 R34 R48/20/21/22 R68

201-807-2 Not Available From 0.01 to 0.1 percent. Phenol, 2-(1,1-dimethylethyl)- N Xn

R21 R36/38 R50/53

211-989-5 Not Available From 0.0001 to 0.001 percent. 2,4,6-Triisopropylphenol N Xi

R38 R50/53

Section 4 First Aid Measures

## 4.1 Description of first aid measures

#### Skin

Immediately remove all contaminated clothing. Rinse skin with water / shower. If skin irritation occurs, seek medical attention. Launder contaminated clothing before reuse.

#### Eyes

Rinse cautiously with water for 20 minutes or until chemical is removed. Remove contact lenses, if present and easy to do. Immediately call a poison center or doctor.

## Inhaled

Remove exposed person to fresh air if adverse effects are observed.

#### Swallowed

Do NOT induce vomiting. Never give anything by mouth to a person who is losing consciousness, unconscious or convulsing. Rinse mouth and then drink plenty of water, seek medical attention Call a poison center or doctor if exposed or you feel unwell.

#### Advice for first-aid providers

When providing first aid always protect yourself against exposure to chemicals or blood born diseases by wearing gloves, masks and eye protection. After providing first aid wash your exposed skin with soap and water.

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

See section 11.

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

If exposed or concerned: Get medical attention.

Section 5
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#### 5.1 Extinguishing Media

CO2, dry chemical, foam, water spray, water fog. Water can be used to cool and protect exposed material

## 5.2 Special hazards arising from substance or mixture

Elevated temperatures can lead to the formation of irritating fumes and vapors. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Keep material away from from heat, sparks, pilot lights, static electricity and open flame. If possible, immediately isolate from fire. Material may accumulate static charge. Liquid evaporates and forms vapor (fumes) which can catch fire and burn. Prevent static discharge. DO NOT USE a solid stream of water. See section 10 for additional information.

### 5.3 Advice for firefighters

Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Treat as an oil fire. Water may cause splattering. Use water to cool containers exposed to fire. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. Stop leak if safe to do so. Avoid water stream on molten burning material as it may scatter and spread the fire. In case of fire, evacuate area. Do not release chemically contaminated water into drains, soil or surface water.

Section 6	Accidental Release Measures

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

Keep unnecessary personnel away. Only trained personnel should be permitted in area. Personal protective equipment must be worn. Avoid contact with skin, eyes or clothing. Ventilate area if spilled in a confined space or other poorly ventilated area. Eliminate all ignition sources if safe to do so.

### 6.2 Environmental precautions

Material will float on water. Take precautions to avoid release to the environment. Do not flush into surface water, sanitary sewer or ground water system.

## 6.3 Methods and material for containment and cleaning up

Shut off leak if without risk. Use non-sparking tools. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Small spills: contain spilled material. Transfer to secure containers. Where necessary collect using absorbent media. Larger spills: stop spill and dike area to prevent spreading, pump liquid to salvage tank. remaining liquid may be taken up on sand, clay, earth, floor absorbent or other absorbent material and shoveled into containers.

## 6.4 Reference to other sections

See sections 8 and 13 for additional information.

Section 7 Handling and Storage	
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#### 7.1 Precautions for safe handling

Keep material away from heat, sparks, pilot lights, static electricity and open flame. Open container in a well ventilated area. Avoid breathing vapors. Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. Avoid breathing vapor. Avoid contact with eyes, skin and clothing Avoid inhalation of dust, aerosol, mist, spray, fume, or vapor. Use with appropriate and adequate ventilation. Electrostatic buildup may occur when pouring or transferring this product from its container. The spark produced may be sufficient to ignite vapors of flammable liquids. Always transfer product by means which avoid static buildup. Avoid pouring product directly from its container into combustible or flammable solvent. Static ignition hazard can result from handling and use. Electrically bond and ground all containers and equipment before transfer or use of material. All equipment should be grounded to prevent static discharges, and vented to provide for potential energy release. Do not breathe thermal decomposition products. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Launder contaminated clothing before reuse. Empty container contains product residue which may exhibit hazards of product. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

## **Pumping Temperature**

Not determined.

## **Maximum Handling Temperature**

70 °C, 158 °F

### **Maximum Loading Temperature**

70 °C, 158 °F

## 7.2 Conditions for safe storage, including any incompatibilities

Keep material away from heat, sparks, pilot lights, static electricity and open flame. Store separately from oxidizers. Take precautions to avoid release to the environment. Store in a cool, dry, well-ventilated area. Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from direct heat source and away from sunlight. Keep container tightly closed. Ground all equipment containing material. Material can burn; limit indoor storage to areas equipped with appropriate automatic sprinkler system. See section 10 for incompatible materials.

## **Maximum Storage Temperature**

45 °C, 113 °F

### 7.3 Specific end use(s)

End uses are listed in an attached exposure scenario when one is required.

Section 8	Exposure Controls/Personal Protection

#### 8.1 Control parameters

Country	Substance	Long Term (8 Hours T.W.A.)	Short Term (15 mins.)
Austria	Phenol	2 ppm (s)	N/E
Belgium	Phenol	2 ppm (s)	N/E
Cyprus	Phenol	2 ppm	N/E
Czech Republic	Phenol	7.50 mg/cu. M	15 mg/cu. M (c)
Denmark	Phenol	1 ppm	N/E
EU	Phenol	2 ppm (s)	4 ppm
Estonia	Phenol	2 ppm	N/E
Finland	Phenol	2 ppm (s)	5 ppm
France	Phenol	2 ppm	4 ppm
Greece	Phenol	5 ppm	10 ppm
Hungary	Phenol	7.80 mg/cu. M	7.80 mg/cu. M
Ireland	Phenol	2 ppm (s)	N/E
Italy	Phenol	2 ppm	N/E
Poland	Phenol	7.80 mg/cu. M	N/E
Portugal	Phenol	5 ppm	N/E
Slovenia	Phenol	2 ppm	4 ppm
Slovak Republic	Phenol	2 ppm	N/E
Spain	Phenol	2 ppm	N/E
Sweden	Phenol	1 ppm (s)	2 ppm
Switzerland	Phenol	5 ppm	5 ppm
Germany (TRGS 900)	Phenol	2 ppm (s)	N/E
UK	Phenol	2 ppm	6 ppm

### Other Exposure Limits

Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH TWA of 5 mg per cubic meter.

## 8.2 Exposure controls

Material should be handled in enclosed vessels and equipment, in which case general (mechanical) room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. Prevent inhalation by providing effective general and, when necessary, local exhaust ventilation to draw spray, aerosol, fume, mist, or vapor away from workers. Thermal processing operations should be ventilated to control gases and fumes given off during processing.

## Eye/face protection

Chemical goggles or faceshield. Wear face shield during thermal processing if contact with molten materials is likely.

#### Skin protection

To avoid burns from contact with molten product, use thermal insulating gloves. Consult clothing/glove manufacturer to determine appropriate type of glove for given situation. Gloves should always be inspected before each use and discarded if they show tears, pinholes, or signs of wear. Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur wear chemically protective gloves.

Gloves, coveralls, apron, boots as necessary to minimize contact Wear either a chemical protective suit or apron when potential for contact with material exists. When working with heated material, wear heat protective clothing. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction. Launder contaminated clothing before reuse.

#### Respiratory Protection

Use half mask respirator with an organic vapor cartridge if exposure limit is exceeded. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.

### **Hygiene Measures**

Wash thoroughly after handling this product.

## **Environmental exposure controls**

See section 6 for details.

Section 9 Physical and Chemical Properties

## 9.1 Information on basic physical and chemical properties

**Appearance** Dark amber liquid.

Odour Strong

Odour Threshold Not determined.

PH Not determined.

Melting / Freezing Point Not determined.

Boiling Point Range Not determined.

Flash Point 110 °C, 230 °F PMCC (Typical)

Evaporation Rate Not determined.
Flammability
(solid,gas) Not applicable.

Lower flammability or

explosive limit

Not determined.

Upper flammability or

explosive limit

Not determined.

Vapour Pressure 0.0011 psi (Calc) (20 °C)

0.0249 psi (Calc) (77 °C)

Vapour Density Not determined. Relative density 1.03 (15.6 °C) **Bulk Density** Not determined. Water Solubility Insoluble. Other solubilities Not determined. Partition coefficient: Not determined. n-octanol/water **Autoignition Point** Not determined. Decomposition Not determined.

Temperature
Viscosity

86 Centistokes (40 °C)

9.2 Centistokes (100 °C)

Explosive properties Material does not have explosive properties.

Oxidising properties Material is a non-oxidising substance.

9.2 Other information

**Volatile Organic** Compound 0.82 Lb/gal (ASTM E 1868-10)

The above data are typical values and do not constitute a specification.

Section 10 Stability and Reactivity

## 10.1 Reactivity

Carefully review all information provided in sections 10.2 - 10.6.

## 10.2 Chemical stability

Material is normally stable at room temperature and pressure. See the Handling and Storage Section for further details.

## 10.3 Possibility of hazardous reactions

Will not occur.

#### 10.4 Conditions to avoid

Do not expose to excessive heat, ignition sources, or oxidizing materials. High temperatures. Contact with strong oxidizers. Contact with strong caustic agents.

#### 10.5 Incompatible materials

Acids. Reducing agents. Oxidizing agents. Nitric acid.

#### 10.6 Hazardous decomposition products

Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released. Under combustion conditions, oxides of the following elements will be formed: phosphorus, sulfur, zinc.

### Section 11 Toxicological Information

## 11.1 Information on toxicological effects

#### Acute toxicity

### Oral

The LD50 in rats is 2000 – 5000 mg/Kg. Based on data from components or similar materials. Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain.

#### Derma

The LD50 in rabbits is > 5000 mg/Kg. Based on data from components or similar materials.

#### Inhalation

No data available to indicate product or components may be a toxic inhalation hazard.

#### Skin corrosion / irritation

Skin irritant. Based on data from similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.

#### Serious eye damage / irritation

Severe eye irritant. Risk of irreversible damage to eyes. Based on data from components or similar materials.

#### **Respiratory Irritation**

If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. Based on data from components or similar materials.

## Respiratory or skin sensitization

#### Skin

May cause skin sensitzation in sensitive individuals. Based on data from components or similar materials.

### Respiratory

No data available to indicate product or components may be respiratory sensitizers.

### Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

## Carcinogenicity

This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

### Reproductive Toxicity

This product contains para-dodecylphenol. Rats given high, repeated daily doses of para-dodecylphenol by oral intubation experienced adverse reproductive effects. The relevance of these effects to humans is uncertain.

This product contains para-dodecylphenol. Pregnant rats given high, repeated daily doses of para-dodecylphenol by oral intubation gave birth to pups with cleft palate and skeletal malformations. The relevance of these effects to humans is uncertain. Prolonged and repeated exposure of pregnant animals to toluene by inhalation has been reported to cause adverse fetal developmental effects.

### STOT repeated exposure

This product contains triphenyl phosphite which produced neurotoxic effects (weakness, tremors and paralysis) in experimental animals. In a 28-day oral toxicity study in rats, 2,6-Di-tert-butylphenol showed an increase in liver weight with corresponding histopathology at 600 mg/kg-bw/day; a NOAEL of 100 mg/kg-bw/day was established for systemic toxicity.

### Other information

No other health hazards known.

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Section 12	Ecological Information	
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## 12.1 Toxicity

### Freshwater fish

The acute LC50 is 1 - 10 mg/L based on component data.

### Freshwater invertebrates

The acute EC50 is 1 - 10 mg/L based on component data. Chronic effects expected at < 1 mg/L based on component data.

### Algae

The acute EC50 is 10 - 100 mg/L based on component data.

## Saltwater fish

The acute LC50 is 10 - 100 mg/L based on component data.

#### Saltwater invertebrates

Not determined.

## Bacteria

Not determined.

## 12.2 Persistence and degradability

Substance	Pct. (weight)	Test type	Duration (days)	Pct. degradation
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)-	From 40 to 49.9 percent	Closed Bottle	27	5
2,6-Di-tert-butylphenol	From 20 to 29.9 percent	Zahn-Wellens	28	24
2,6-Di-tert-butylphenol	From 20 to 29.9 percent	Sturm	28	5
Naphtha (petroleum), heavy aromatic	From 0.1 to 0.9 percent	Manometric Respirometry	28	58
Dodecylphenol, mixed isomers (branched)	From 0.1 to 0.9 percent	Miscellaneous- Degradation	56	10
Dodecylphenol, mixed isomers (branched)	From 0.1 to 0.9 percent	Sturm	28	25
Phenol, 2-(1,1-dimethylethyl)-	From 20 to 29.9 percent	MITI 1	28	31

## 12.3 Bioaccumulative potential

Substance	Pct. (weight)	Test type	Duration (days)	Log Kow or BCF
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)-	From 40 to 49.9 percent	Octanol-Water Coefficient	0.1	3.6
2,6-Di-tert-butylphenol	From 20 to 29.9 percent	Octanol-Water Coefficient	0.1	4.5
Triphenyl phosphite	From 1 to 4.9 percent	Octanol-Water Coefficient	0.1	5
Naphtha (petroleum), heavy aromatic	From 0.1 to 0.9 percent	Octanol-Water Coefficient	0.1	3.1
Dodecylphenol, mixed isomers (branched)	From 0.1 to 0.9 percent	Bioconcentration Factor	27	2.9
Dodecylphenol, mixed isomers (branched)	From 0.1 to 0.9 percent	Octanol-Water Coefficient	0.1	7.1
Phenol, 2-(1,1-dimethylethyl)-	From 20 to 29.9 percent	Octanol-Water Coefficient	0.1	3.3

# 12.4 Mobility in soil

Not applicable.

## 12.5 Results of PBT and vPvB assessment

Not Available

## 12.6 Other adverse effects

None known.

Section 13	Disposal Considerations
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## 13.1 Waste treatment methods

All disposal practices must be in accordance with local, regional, national and international regulations. Do not dispose in landfill. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

Section 14	Transport Information

## 14.1 UN number

ADR/RID	UN3082
ICAO	UN3082
IMDG	UN3082

## 14.2 UN proper shipping name

ADR/RID Environmentally hazardous substance, liquid, n.o.s.(Butylated phenol, Zinc alkyldithiophosphate)

ICAO Environmentally hazardous substance, liquid, n.o.s.(Butylated phenol, Zinc alkyldithiophosphate)

IMDG Environmentally hazardous substance, liquid, n.o.s.(Butylated phenol, Zinc alkyldithiophosphate)

14.3 Transport hazard class(es)

ADR/RID 9 ICAO 9 IMDG 9

14.4 Packing group

ADR/RID III ICAO III IMDG III

14.5 Environmental hazards

ADR/RID Aquatic Pollutant(Butylated phenol, Zinc alkyldithiophosphate)

ICAO Marine Pollutant(Butylated phenol, Zinc alkyldithiophosphate)

IMDG Marine Pollutant(Butylated phenol, Zinc alkyldithiophosphate)

## 14.6 Special precautions for users

Review classification requirements before shipping materials at elevated temperatures.

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

Not determined.

Section 15	Regulatory Information

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

#### **Global Chemical Inventories**

Australia All components are in compliance with chemical notification requirements in Australia.

Canada All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.

China All components of this product are listed on the Inventory of Existing Chemical Substances in China.

EU All components are in compliance with the EC Seventh amendment Directive 92/32/EEC.

Japan All components are in compliance with the Chemical Substances Control Law of Japan.

Korea All components are in compliance in Korea.

New Zealand All components are in compliance with chemical notification requirements in New Zealand.

Philippines All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990

(R.A. 6969).

Switzerland All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Taiwan All components of this product are listed on the Taiwan inventory.

USA All components of this material are on the US TSCA Inventory or are exempt.

## German water hazard classes

WGK = 2 according to the Water Hazardous Directive, VwVwS, dated May 17, 1999.

## 15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

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Section 16	Other Information

## Created by

Product Safety and Compliance Department (440-943-1200)

### **Created Date**

09 July 2011

## **Revision date**

15 February 2012

### SDS No.

31436308-2411922-5048221-102103

## **HMIS Codes**

Health	Fire	Reactivity
3*	1	0

### Relevant R Phrases

R21 -- Harmful in contact with skin.

R22 -- Harmful if swallowed.

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

R34 -- Causes burns.

- R36/38 -- Irritating to eyes and skin.
- R38 -- Irritating to skin.
- R41 -- Risk of serious damage to eye.
- R43 -- May cause sensitisation by skin contact.
- R48/20/21/22 -- Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
- R50/53 -- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53 -- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R53 -- May cause long-term adverse effects in aquatic environment.
- R62 -- Possible risk of impaired fertility.
- R65 -- Harmful: may cause lung damage if swallowed.
- R68 -- Possible risk of irreversible effects.

#### Relevant hazard phrases

- H226 Flammable liquid and vapor.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H341 Suspected of causing genetic defects.
- H361 Suspected of damaging fertility or the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

### **Revision Indicators**

Section: 2 CLP Hazard Class	Changed: 2 September 2011
Section: 2 CLP Hazard statements	Changed: 2 September 2011
Section: 2 GHS Prevention statement(s)	Changed: 2 September 2011
Section: 2 Skin first aid.	Changed: 2 September 2011
Section: 2 Storage procedures.	Changed: 2 September 2011
Section: 3 CLP Hazardous Ingredients	Changed: 15 February 2012
Section: 3 EU hazardous ingredients.	Changed: 15 February 2012
Section: 4 Eyes first aid.	Changed: 2 September 2011
Section: 4 Oral first aid.	Changed: 2 September 2011
Section: 4 Skin first aid.	Changed: 2 September 2011
Section: 5 Extinguishing media.	Changed: 2 September 2011
Section: 5 Special firefighting procedures.	Changed: 2 September 2011
Section: 5 Unusual fire& explosion hazards.	Changed: 2 September 2011
Section: 6 Environmental precautions	Changed: 2 September 2011
Section: 6 Methods for clean-up, removal	Changed: 2 September 2011
Section: 6 Personal precaution	Changed: 2 September 2011
Section: 7 Handling procedures.	Changed: 2 September 2011
Section: 7 Maximum handling temperature.	Changed: 16 September 2011
Section: 7 Maximum storage temperature.	Changed: 16 September 2011
Section: 7 Storage procedures.	Changed: 2 September 2011
Section: 8 Clothing recommendations.	Changed: 2 September 2011
Section: 8 Eye protection.	Changed: 2 September 2011
Section: 8 Glove protection.	Changed: 2 September 2011
Section: 8 Ventilation procedures.	Changed: 2 September 2011
Section: 9 Percent volatile organic compounds.	Changed: 16 September 2011
Section: 10 Conditions to avoid.	Changed: 2 September 2011
Section: 10 Incompatibility.	Changed: 2 September 2011
Section: 11 Chronic toxicity.	Changed: 2 September 2011
Section: 11 Skin irritation.	Changed: 2 September 2011
Section: 12 Algae toxicity.	Changed: 2 September 2011

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