

### M-Coat JA Part A

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

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Version 4.0

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name M-Coat JA Part A
Product Code Not applicable
Unique Formula Identifier (UFI) Not applicable

Nanoform The product does not contain nanoparticles.

1.2 Relevant identified uses of the substance or mixture

and uses advised against

 Identified Use(s)
 Sealants

 Uses Advised Against
 None Known

1.3 Details of the supplier of the safety data sheet

Company Identification VISHAY MEASUREMENTS GROUP GMBH

Tatschenweg 1 74078 Heilbronn Deutschland

 Telephone
 +49 (0) 7131 39099-0

 Fax
 +49 (0) 7131 39099-229

 E-Mail (competent person)
 mm.de@vpgsensors.com

1.4 Emergency telephone number

National Poisons Information Service (United Kingdom) +44 (0) 3448 920111 24 hr. emergency phone number

Healthcare Professionals ONLY

NHS 24 111 Members of Public Emergency Phone No. (00-1) 703-527-3887 CHEMTREC (24 hours)

Languages spoken All official European languages.

### **SECTION 2: HAZARDS IDENTIFICATION**

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP)

Acute Tox. 4; H302
Skin Sens. 1; H317
STOT RE 1; H372
Aquatic Chronic. 1; H410

2.2 Label elements According to Regulation (EC) No. 1272/2008 (CLP)

Product Name M-Coat JA Part A

Hazard Pictogram(s)







Signal Word(s) DANGER

Contains: Bis (piperidinothiocarbonyl) tetrasulphide and Manganese dioxide

Hazard Statement(s) H302: Harmful if swallowed.

H317: May cause an allergic skin reaction.

H372: Causes damage to organs through prolonged or repeated exposure.

H410: Very toxic to aquatic life with long lasting effects.

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Precautionary Statement(s) P260: Do not breathe mist/vapours/spray.

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

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P314: Get medical advice/attention if you feel unwell.

P391: Collect spillage.

Supplemental information None assigned

2.3 Other hazards None

### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances** - Not applicable.

### 3.2 Mixtures

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard classification
Manganese dioxide	15 - 40	1313-13-9	215-202-6	Not yet assigned in the supply chain	Acute Tox. 4; H302 Acute Tox. 4; H332 STOT RE 1 ; H372
Terphenyl, hydrogenated	10 - 30	61788-32-7	262-967-7	Not yet assigned in the supply chain	Aquatic Chronic. 2: H411
Bis (piperidinothiocarbonyl) tetrasulphide	1 - 5	120-54-7	204-406-0	Not yet assigned in the supply chain	Skin Sens. 1; H317 Aquatic Chronic. 2; H411
Terphenyl	1 - 5	26140-60-3	247-477-3	Not yet assigned in the supply chain	Aquatic Acute 1; H400 Aquatic Chronic 1; H410

### Specific concentration limit (SCL) & M-factor

Chemical identity of the substance	CAS No.	EC No.	Specific concentration limit (SCL)	M-factor
Terphenyl	26140-60-3	247-477-3	-	10 (Chronic)

Note: For full text of H phrases see section 16.

### **SECTION 4: FIRST AID MEASURES**



### 4.1 Description of first aid measures

Self-protection of the first aider

Inhalation

Skin Contact

Avoid breathing mist/vapours/spray. Ensure adequate ventilation. Wear suitable protective clothing. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Avoid contact with skin. Contaminated clothing should be laundered before reuse. Do not use mouth-to-mouth resuscitation. Eyewash facilities should be stationed close to workplace where possible.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

IF ON SKIN: Gently wash with plenty of soap and water. Remove contaminated clothing and wash clothing before reuse. If irritation (redness, rash, blistering) develops, get medical attention.

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Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

IF SWALLOWED: Rinse mouth. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. If symptoms occur obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed. May cause an allergic skin reaction. Causes damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### **SECTION 5: FIREFIGHTING MEASURES**

5.1 Extinguishing media

Suitable Extinguishing media As appropriate for surrounding fire. Extinguish preferably with foam, carbon

dioxide or dry chemical.

be allowed out of the workplace.

Unsuitable extinguishing media

Do not use water jet. Direct water jet may spread the fire.

5.2 Special hazards arising from the substance or mixture

May decompose in a fire giving off toxic fumes. Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulphur oxides,

metal oxides.

5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Caution - spillages may be slippery. Eliminate sources of ignition. Shut off leaks if without risk. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not breathe vapour. Use personal protective equipment as required. Remove contaminated clothing. Contaminated work clothing should not

6.2 Environmental precautions

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.

6.3 Methods and material for containment and cleaning up

Ensure suitable personal protection during removal of spillages. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a lidded container for disposal or recovery. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste. Allow small spillages to evaporate provided there is adequate ventilation.

Large spillages:

Stop leak if safe to do so. Keep upwind. Adsorb spillages onto sand, earth or any suitable adsorbent material. Ventilate the area and wash spill site after material pick-up is complete. Transfer to a container for disposal. Dispose of this material and its container as hazardous waste (2008/98/EEC).

See Section: 8, 13

6.4 Reference to other sections

### **SECTION 7: HANDLING AND STORAGE**

7.1 Precautions for safe handling

Ensure adequate ventilation. Use personal protective equipment as required. Do not breathe vapour. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2 Conditions for safe storage, including any

incompatibilities
Storage temperature

Storage life Incompatible materials

Specific end use(s)

7.3

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Keep away from heat, sources of ignition and direct sunlight.

away from heat, sources of ignition Store above ( $\mathbb{C}$ ): 5 (41  $\mathbb{F}$ )

Stable under normal conditions.

Keep away from: Oxidizing agents and Acids. Keep from direct sunlight.

See Section: 1.2.

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters
- 8.1.1 Occupational Exposure Limits

### United Kingdom

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Magnesite	546-93-0					-
inhalable dust		=	10	-	-	
respirable dust		-	4	-	-	
Talc, respirable dust	14807-96-6	-	1	-	-	-
Terphenyls, all isomers	26140-60-3	-	-	0.5	4.8	-

Source: UK WEL: Workplace Exposure Limit (UK HSE EH40)

### Ireland

SUBSTANCE	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
		ppm	mg/m³	ppm	mg/m³	
Talc	14807-96-6					
total inhalable dust		-	10	-	-	-
respirable dust		-	0.8	-	-	-
Terphenyls, all	26140-60-3			0.5	E	
isomers	20140-00-3	-	-	0.5	) J	_

Source: 2021 Code of Practice for Safety, Health and Welfare at Work (Chemical Agents) Regulation (2001 – 2021) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001 – 2019); Health and Safety Authority

8.1.2 Biological limit value

Not established.

8.1.3 PNECs and DNELs

Not established.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure adequate ventilation or use appropriate containment. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Local exhaust recommended. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Eyewash facilities should be stationed close to workplace where possible.

8.2.2 Individual protection measures, such as personal protective equipment (PPE)

General hygiene measures for the handling of chemicals are applicable. Avoid contact with skin, eyes or clothing. Avoid breathing mist/vapours/spray. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be thoroughly cleaned. Do not eat, drink or smoke at the work place.

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.

Eye/ face protection



Skin protection



Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

### Hand protection:

Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: PVC / Nitrile rubber.



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During full contact:

Protective index 6, corresponding > 480 minutes of permeation time according to

Nitrile rubber (Minimum thickness: 0.33 mm) Butyl rubber (Minimum thickness: 0.5 mm)

During splash contact:

At least protective index 5, corresponding > 240 minutes of permeation time

according to EN 374

Polychloroprene - CR (Minimum thickness: 0.5 mm)

Unsuitable gloves materials:

Natural rubber/natural latex, Polyvinyl chloride - PVC.

### **Body protection:**

Wear dustproof working clothes. Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Use only in well-ventilated areas. In case of inadequate ventilation wear respiratory protection. A suitable mask with filter type A (EN141 or EN405) may be appropriate.

High concentrations: Wear suitable respiratory equipment. Recommended: Selfcontained breathing apparatus (DIN EN 137)

Not applicable

Avoid release to the environment. Do not allow to enter drains, sewers or

watercourses.

# Respiratory protection



# Thermal hazards

#### 8.2.3 **Environmental exposure controls**

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

#### 9.1 Information on basic physical and chemical properties

Physical state Liquid Colour Black

Odour Not determined. No data available Melting point and freezing point > 37.78 ℃

Boiling point or initial boiling point and boiling range

Flammability not applicable - Liquid No data available Lower and upper explosion limit or lower and upper

flammability limit

98.89 ℃ [Closed cup] Flash point No data available Auto-ignition temperature No data available Decomposition temperature No data available

Kinematic viscosity No data available Insoluble in cold water. Solubility

Partition coefficient: n-octanol/water (log value) No data available Vapour pressure 0.27 kPa (2.03 mm Hg) @ 20℃

Density and/or relative density Relative vapour density Terphenyl, hydrogenated: 7.95 (Air = 1)

Particle characteristics not applicable

9.2 Other information

> Not explosive. Explosive properties Oxidising properties Not oxidising.

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> 0.21 cm2/s @ 40°C Viscosity

### **SECTION 10: STABILITY AND REACTIVITY**

10.1 Reactivity Stable under normal conditions. Stable under normal conditions. Hazardous polymerisation will not occur. 10.2 Chemical stability

10.3 Possibility of hazardous reactions Hazardous polymerisation will not occur.

10.4 Conditions to avoid Keep away from heat, sources of ignition and direct sunlight.

10.5 Incompatible materials Keep away from: Oxidizing agents and Acids.

10.6 Hazardous decomposition product(s) Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide,

Nitrogen oxides, Sulphur oxides, metal oxides.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity** 

Skin Contact

Mixture: Acute Tox. 4; H302: Harmful if swallowed. Ingestion

Acute Toxicity Estimate Mixture Calculation: Estimated Estimated LD50 >300 -

≤2000 mg/kg bw/day

Manganese dioxide Acute Tox. 4; H302: Harmful if swallowed.

ECHA registration dossier

Inhalation Based upon the available data, the classification criteria are not met.

> Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 5 mg/l (dust/mist Mixture: Based upon the available data, the classification criteria are not met.

Acute Toxicity Estimate Mixture Calculation: Estimated LD50 > 2000 mg/kg

bw/day

Skin corrosion/irritation Mixture: Based upon the available data, the classification criteria are not met. Serious eye damage/irritation Mixture: Based upon the available data, the classification criteria are not met.

Respiratory or skin sensitization Mixture: Skin Sens. 1; H317: May cause an allergic skin reaction.

Bis (piperidinothiocarbonyl) tetrasulphide Skin Sens. 1; H317: May cause an allergic skin reaction.

EU classification and labelling inventory, ≥30 Notifiers

Germ cell mutagenicity Mixture: Based upon the available data, the classification criteria are not met. Carcinogenicity Mixture: Based upon the available data, the classification criteria are not met. Reproductive toxicity Mixture: Based upon the available data, the classification criteria are not met. Mixture: Based upon the available data, the classification criteria are not met.: STOT - single exposure STOT - repeated exposure Mixture: STOT RE 1; H372: Causes damage to organs through prolonged or

repeated exposure:

Manganese dioxide STOT RE 1; H372: Causes damage to organs through prolonged or repeated

exposure: brain and central nervous system (Inhalation)

Repeat dose studies have shown the potential to cause neurotoxicity (inhalation)

Mixture: Based upon the available data, the classification criteria are not met.

Roels et al (1992)

Aspiration hazard

11.2 Information on other hazards

Other information

11.2.2

11.2.1 Endocrine disrupting properties This product does not contain a substance that has endocrine disrupting

properties with respect to humans as no components meets the criteria.

None

### **SECTION 12: ECOLOGICAL INFORMATION**

12.1 **Toxicity** Mixture: Hazardous to the aquatic environment, Acute - Category 2

H401: Toxic to aquatic life.

Hazardous to the aquatic environment, Chronic - Category 1 H410: Very toxic to aquatic life with long lasting effects.

Terphenyl, hydrogenated Aquatic Chronic. 2: H411: Toxic to aquatic life with long lasting effects.

> LC50 (fish) mg/l: 0.025 LOEC (Fish)ma/L: 0.041 NOEC (Fish)mg/L: 0.0048

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**Terphenyl** 

Mobility in soil

12.4

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ECHA registration dossier
Bis (piperidinothiocarbonyl) tetrasulphide Aquatic Chronic. 2: H411:

Aquatic Chronic. 2: H411: Toxic to aquatic life with long lasting effects.

EU classification and labelling inventory, ≥30 Notifiers

Aquatic Acute 1; H400: Very toxic to aquatic life.

EC50 (Rainbow trout)mg/L: 27 EC50 (Daphnia magna) μg/L: 22

Aquatic Chronic 1; H410: Very toxic to aquatic life with long lasting effects.

NOEC Pimephales promelas (fathead minnow) mg/L: 0.037

M-factor (Chronic): 10 ECHA registration dossier

**12.2** Persistence and degradability No data for the mixture as a whole.

Manganese dioxide Not applicable for inorganic substances.

Terphenyl, hydrogenated Inherently Biodegradable

Bis (piperidinothiocarbonyl) tetrasulphide No data available

Terphenyl Not readily biodegradable. In Water: persistent.

**12.3 Bioaccumulative potential** No data for the mixture as a whole.

Manganese dioxide Not applicable for inorganic substances.

Terphenyl, hydrogenated The substance has high potential for bioaccumulation. BCF: 5200

Bis (piperidinothiocarbonyl) tetrasulphide No data available

Terphenyl The substance has low potential for bioaccumulation. BCF: 25 - 129

No data for the mixture as a whole.

Manganese dioxide The substance has low mobility in soil. Kd: ~1355 (OECD 106)

Terphenyl, hydrogenated The substance has low mobility in soil. LogKoc: 4.2 – 6.1

Bis (piperidinothiocarbonyl) tetrasulphide No data available

Terphenyl The substance has low mobility in soil. LogKoc: 4.2 - 5.8

**12.5** Results of PBT and vPvB assessment Not classified as PBT or vPvB.

**12.6 Endocrine disrupting properties**This product does not contain a substance that has endocrine disrupting

properties with respect to non-target organisms as no components meets the

criteria.

12.7 Other adverse effects None known

### **SECTION 13: DISPOSAL CONSIDERATIONS**

13.1 Waste treatment methods This material and its container must be disposed of as hazardous waste. Dispose

of wastes in an approved waste disposal facility.

Waste classification according to Directive 2008/98/EC (Waste Framework

Directive): HP5, HP6, HP13, HP14

**13.2** Additional Information Dispose of contents in accordance with local, state or national legislation.

### **SECTION 14: TRANSPORT INFORMATION**

		ADR/RID	ADN	IMDG	IATA/ICAO
14.1	UN number or ID number	UN 3082	UN 3082	UN 3082	UN 3082
14.2	UN proper shipping name	<b>ENVIRONMENTA</b>	ENVIRONMENT	<b>ENVIRONMENT</b>	ENVIRONMENTALLY
		LLY	ALLY	ALLY	HAZARDOUS
		HAZARDOUS	HAZARDOUS	HAZARDOUS	SUBSTANCE,
		SUBSTANCE,	SUBSTANCE,	SUBSTANCE,	LIQUID, N.O.S
		LIQUID, N.O.S	LIQUID, N.O.S	LIQUID, N.O.S	(Terphenyl)
		(Terphenyl)	(Terphenyl)	(Terphenyl)	
14.3	Transport hazard class(es)	9	9	9	9
14.4	Packing group	III	III	III	III
14.5	Environmental hazards	ENVIRONMENTA	ENVIRONMENT	CLASSIFIED AS	ENVIRONMENTALLY
		LLY	ALLY	A MARINE	HAZARDOUS
		HAZARDOUS	HAZARDOUS	POLLUTANT.	
14.6	Special precautions for user	See Section: 2			

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14.7 Maritime transport in bulk according to IMO

instruments

14.8 Additional information

Not applicable

Not applicable

Not applicable

**SECTION 15: REGULATORY INFORMATION** 

15.1 Safety, health and environmental

regulations/legislation specific for the substance or

mixture

15.1.1 EU regulations

Use restriction according to REACH annex XVII, no.:

Substance(s) of Very High Concern (SVHCs)
Directive 2012/18/EU on the control of major-accident

hazards involving dangerous substances [Seveso-III-

Directive]

Restrictions of occupation:

Not restricted

Not applicable

Terphenyl, hydrogenated - Listed 27/06/2018: vPvB (Article 57e).

E1

Observe restrictions to employment for juvenils according to the 'juvenile work

protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive

(92/85/EEC) for expectant or nursing mothers.

To follow: Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of

workers from the risks related to chemical agents at work

15.1.2 National regulations

Germany

Water hazard class (WGK)

Water hazard class: 2 (Self classification)

A REACH chemical safety assessment has not been carried out.

### **SECTION 16: OTHER INFORMATION**

**Chemical Safety Assessment** 

The following sections contain revisions or new statements: New SDS Regulation 2020/878 format, all sections have been updated to include new information. Please review SDS with care.

### References:

15.2

Existing Safety Data Sheet (SDS).

Harmonised Classification(s) for Manganese dioxide (CAS No. 1313-13-9).

Existing ECHA registration(s) for Manganese dioxide (CAS No. 1313-13-9), Terphenyl, hydrogenated (CAS No. 61788-32-7), Terphenyl (CAS No. 26140-60-3).

The classification and labelling inventory for Bis (piperidinothiocarbonyl) tetrasulphide (CAS No. 120-54-7), Polyphenyls, quater- and higher, partially hydrogenated (CAS No. 68956-74-1

### Literature References:

 Roels HA, Ghyselen P, Buchet JP, et al. 1992. Assessment of the permissible exposure level to manganese in workers exposed to manganese dioxide dust. Br J Ind Med 49:25-34.

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Acute Tox. 4; H302	Threshold Calculation
Skin Sens. 1; H317	Threshold Calculation
STOT RE 1; H372	Threshold Calculation
Aquatic Chronic. 1; H410	Summation Calculation

**LEGEND** 

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

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ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

BCF Bioconcentration factor (BCF)

CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DNEL Derived no effect level
EU European Union
EC European Community
ECHA European Chemicals Agency

EN European Standard

IATA International Air Transport Association
ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
IMO International Maritime Organization

LC50 Lethal concentration at which 50% of the population is killed LD50 Lethal dose at which 50% of the population is killed

LOEC Lowest observed effect concentration

LTEL Long term exposure limit

NOEC No Observed Effect Concentration

OECD Organisation for Economic Cooperation and Development

PBT Persistent, Bioaccumulative and Toxic
PNEC Predicted No Effect Concentration

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Regulations concerning the International Carriage of Dangerous Goods by Rail

TWA Time Weighted Average STEL Short term exposure limit

vPvB very Persistent and very Bioaccumulative

UK United Kingdom UN United Nations

Hazard classification / Classification code:

Acute Tox. 4; Acute Toxicity, Category 4
Skin Sens. 1; Skin Sensitisation, Category 1

Acute Tox. 4; Acute Toxicity, Category 4

STOT RE 1; Specific target organ toxicity — repeated exposure,

Category 1

Aquatic Acute 1; Hazardous to the aquatic environment, acute, Category

Aqua

Aquatic Acute 2; Hazardous to the aquatic environment, Acute, Category

2

Aquatic Chronic 1; Hazardous to the aquatic environment, Chronic,

Category 1

Aquatic Chronic 2; Hazardous to the aquatic environment, Chronic,

Category 2

Hazard Statement(s)

H302: Harmful if swallowed.

H317: May cause an allergic skin reaction.

H332: Harmful if inhaled.

H372: Causes damage to organs through prolonged or repeated

exposure.

H400: Very toxic to aquatic life.

H401: Toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H411: Toxic to aquatic life with long lasting effects.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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