MOTOREX\*
Oil of Switzerland
Revision: 02.10.2023

Printing date 29.01.2024

Version number 1.0

### 1 Identification

- · Product identifier
- · Trade name: COOLANT M3.0 CONCENTRATE
- Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance / the mixture

Engine coolant

Only for proper handling.

- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

**MOTOREX AG** 

Bern-Zürich-Strasse 31, Postfach

CH-4901 Langenthal

Tel. +41 (0)62 919 75 75

www.motorex.com

A1 Accessory Imports

60-62 Burchill St.

Loganholme

4129 QLD

Australia

Phone: 07 3451 1300

- · Further information obtainable from: msds@motorex.com
- · Emergency telephone number:

In case of a medical emergency following exposure to a chemical, call Poisons Information Centre Australia 13 11 26

## 2 Hazard(s) Identification

· Classification of the substance or mixture

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

- · Label elements
- GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

Hazard pictograms



GHS08

- · Signal word Warning
- · Hazard-determining components of labelling:

Ethane-1,2-diol

· Hazard statements

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

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

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

### 3 Composition and Information on Ingredients

- · Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous compoi	nents:	
CAS: 107-21-1	Ethane-1,2-diol	≥70-≤100%
EINECS: 203-473-3	STOT RE 2, H373	
CAS: 84501-71-3	Potassium isononanoate	1-3%
EINECS: 282-991-1	Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 29385-43-1	methyl-1H-benzotriazole	0.25-1%
EINECS: 249-596-6	Acute Tox. 3, H301; Repr. 2, H361	

<sup>·</sup> Additional information: For the wording of the listed hazard phrases refer to section 16.

## 4 First Aid Measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## 5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

· Protective equipment: Mouth respiratory protective device.

### 6 Accidental Release Measures

· Personal precautions, protective equipment and emergency procedures Mount respiratory protective device.

Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

## 7 Handling and Storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- · Information about fire and explosion protection: Keep respiratory protective device available.
- · 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:

The recommended storage temperature is (deg.C): ≤50°C

- · Storage class: 10
- · Specific end use(s) No further relevant information available.

### 8 Exposure controls and personal protection

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

	Ingredients with limit values that red	quire monitoring at the workplace:
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WES Short-term value: 104\*\* mg/m³, 40\*\* ppm Long-term value: 10\* 52\*\* mg/m³, 20\*\* ppm

Sk;\*particulate;\*\*vapour

·DNELs		
107-21-1	Ethane-1,2-diol	
Dermal	DNEL / Workers / Systemic effects / Long-term	106 mg/kg/24h (worker)
	DNEL/general population/Systemic effects/Long-term	53 mg/kg/24h (consumer)
Inhalative	DNEL / Workers / Local Effects / Long-term	35 mg/m3 (worker)
	DNEL/general population/Local effects/Long-term	7 mg/m3 (consumer)
29385-43-	1 methyl-1H-benzotriazole	
Oral	DNEL/general population/Systemic effects/Long-term	0.25 mg/kg/24h (consumer)
	DNEL/general pop/Systemic effects/acute-short term	0.25 mg/kg/24h (consumer)
Dermal	DNEL / Workers / Systemic effects / Long-term	0.5 mg/kg/24h (worker)
	DNEL/general population/Systemic effects/Long-term	0.25 mg/kg/24h (consumer)
Inhalative	DNEL / Workers / Systemic effects / Long-term	8.8 mg/m3 (worker)
	DNEL/general population/Systemic effects/Long-term	4.4 mg/m3 (consumer)

#### · PNECs

### 107-21-1 Ethane-1,2-diol

PNEC / Aquatic organisms / Freshwater
PNEC / Aquatic organisms / Marine water
PNEC/Aquatic org/intermittent releases(freshwater)
PNEC/Aquatic organisms/Sewage treatment plant/STP
PNEC / Aquatic organisms / Sediment (freshwater)
PNEC / Aquatic organisms / Sediment (marine water)
PNEC / Terrestrial organism / Soil

10 mg/l (aquatic organisms)
11 mg/l (aquatic organisms)
12 mg/l (aquatic organisms)
13 mg/kg (aquatic organisms)
13 mg/kg (aquatic organisms)
153 mg/kg (terrestrial organisms)

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29385-43-1 methyl-1H-benzotriazole	
PNEC / Aquatic organisms / Freshwater	0.008 mg/l (aquatic organisms)
PNEC / Aquatic organisms / Marine water	0.008 mg/l (aquatic organisms)
PNEC/Aquatic organisms/Sewage treatment plant/STP	39.4 mg/l (aquatic organisms)
PNEC / Aquatic organisms / Sediment (freshwater)	0.0025 mg/kg (aquatic organisms)
PNEC / Aquatic organisms / Sediment (marine water)	0.0025 mg/kg (aquatic organisms)

- · Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:

#### · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

#### · Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Not necessary if room is well-ventilated.

Respiratory protection if formation of aerosol or mist: use mask with filter type A2, A2/P2 or ABEK.

· Protection of hands:



#### Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### · Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



safety goggles

· Body protection: Protective work clothing

## 9 Physical and Chemical Properties

· General Information

· Appearance:

· Form: Fluid · Colour: Pink

Odour: Characteristic
 Odour threshold: Not determined.
 pH-value at 20 °C: 8.5 (DIN 51369)

· Change in condition

· **Melting point/freezing point:** Undetermined.

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· Initial boiling point and boiling range: 170-185 °C (DIN EN ISO 3405)

111 °C · Flash point: Flammability (solid, gas): Not applicable. Auto-ignition temperature: 398 °C (DIN 51794) Decomposition temperature: Not determined.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

· Lower: Not determined. · Upper: Not determined. Vapour pressure: Not determined.

Density at 20 °C: 1.118 g/cm3 (ASTM D 4052)

Relative density Not determined. Vapour density Not determined. · Evaporation rate Not determined.

Solubility in / Miscibility with

· water: Fully miscible. · Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

· Dynamic: Not determined. · Kinematic: Not determined.

· Solvent separation test:

0.00 % · VOC (EC)

No further relevant information available. · Other information

## 10 Stability and Reactivity

- · Reactivity No further relevant information available.
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

### 11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50	values rele	evant for classification:
107-21-1	Ethane-1,2	?-diol
Oral	LD50	7,712 mg/kg (rat)
	NOEL	150 mg/kg/24h (rat)
	NOAEL	200 mg/kg/24h (rat)
	NOAEL	12,500 ppm (mouse)
Dermal	LD50	3,500 mg/kg (mouse)
	NOAEL	2,200-4,400 mg/kg/24h (dog)
Inhalative	LC50 / 6h	2.5 mg/l (rat)
29385-43-	1 methyl-1	H-benzotriazole
Oral	LD50	720 mg/kg (rat)
	NOAEL	150 mg/kg/24h (rat)
	LOAEL	6,700-11,700 mg/kg/24h (rat)
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- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.
- · Aspiration hazard Based on available data, the classification criteria are not met.

### 12 Ecological Information

· Toxicity

· Aquation	ic toxicity:			
107-21-	-1 Ethane-1,2-diol			
LC50	7,286 mg/l/96h (fish)			
LC50	1,500 mg/l/28d (fish)			
EC50	3,536-13,000 mg/l/96h (algae / cyanobacteria)			
EC50	33,911 mg/l/21d (aquatic invertebrates)			
EC100	100 mg/l/48h (aquatic invertebrates)			
EC0	100 mg/l/48h (aquatic invertebrates)			
EC50	100 mg/l/48h (aquatic invertebrates)			
NOEC	7,500-15,000 mg/l/21d (aquatic invertebrates)			
NOEC	100 mg/l/72h (algae / cyanobacteria)			
NOEC	8,590-24,000 mg/l/7d (aquatic invertebrates)			
	15,380-32,000 mg/l/7d (fish)			
29385-	43-1 methyl-1H-benzotriazole			
LOEC	37.6 mg/l/21d (aquatic invertebrates)			
LC50	55-180 mg/l/96h (fish)			
LC0	100 mg/l/96h (fish)			
LC50	55 mg/l/48h (aquatic invertebrates)			
	240 mg/l/48h (fish)			
LC50	180 mg/l/72h (fish)			
LC50	240 mg/l/24h (fish)			
EC10	0.4-0.97 mg/l/21d (aquatic invertebrates)			
EC10	4.17-8.56 mg/l/48h (aquatic invertebrates)			
EC50	1,060 mg/l/24h (microorganisms)			
EC10	1.18-10.5 mg/l/72h (algae / cyanobacteria)			
EC50	29-75 mg/l/72h (algae / cyanobacteria)			
EC50	18.4-37.6 mg/l/21d (aquatic invertebrates)			
EC50	8.58-15.8 mg/l/48h (aquatic invertebrates)			
NOEC	18.4 mg/l/21d (aquatic invertebrates)			
NOEC	10-30 mg/l/72h (algae / cyanobacteria)			
NOEC	30 mg/l/48h (aquatic invertebrates)			
Persist	rence and degradability No further relevant information available.			

· Persistence and degradability No further relevant information available.

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· Behaviour in environmental systems:

· Bioaccumulative p	ootential
107-21-1 Ethane-1,	2-diol
Partition coefficient	≤1.36 [] (log Kow) (Bioaccumulation)
Biodegradability	>90 % (28d) (Biodegradability) (OECD 301 A)

- · Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

## 13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Return product and/or partially emptied container in original packaging to the point of sale or hand it over to a collection point for special waste.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

UN-Number ADG, IMDG, IATA	Not classified as hazardous for transport
N proper shipping name DG, IMDG, IATA	Not classified as hazardous for transport
Transport hazard class(es)	
ADG, ADN, IMDG, IATA Class	Not classified as hazardous for transport
Packing group ADG, IMDG, IATA	Not classified as hazardous for transport
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Ann Marpol and the IBC Code	ex II of Not applicable.
UN "Model Regulation":	Not classified as hazardous for transport

- AU

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## 15 Regulatory information

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

· Australian	Inventory of Industrial Chemicals	
107-21-1	Ethane-1,2-diol	
29385-43-1	methyl-1H-benzotriazole	
· Standard fo	or the Uniform Scheduling of Medicines and Poisons	
107-21-1 E	thane-1,2-diol	S5, S6, S10
. Australia: l	Priority Existing Chemicals	

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Chemical safety assessment: A Chemical Safety Assessment has been carried out.

## 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. The classification of the mixture was carried out by calculation in accordance with the rules laid down in Annex I of Regulation (EC) No 1272/2008.

No special training instructions to ensure protection of human health and environment are required.

- · purity requirement
- Relevant phrases

H301 Toxic if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

- · Department issuing SDS: Abteilung Produktsicherheit
- Contact:
- · Abbreviations and acronyms:

Acute Tox. 3: Acute toxicity - Category 3

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 2: Reproductive toxicity - Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2

- AU