

# SAFETY DATA SHEET

## HD Engine Coolant Premix

Version 2.0

Revision Date 11.10.2023

Print Date 12.10.2023

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : HD Engine Coolant Premix

Product code : 001I9957

#### Manufacturer or supplier's details

Supplier : Shell Markets (Middle East) Limited  
Level 3, The Offices 4, One Central  
Dubai World Trade Center  
P.O.BOX307 Dubai  
United Arab Emirates

Telephone : (+971) 800035704494

Telefax : (+971) 43321591

Emergency telephone number : 1800 651 818 (AUSTRALIA).

**Contact for Safety Data Sheet** : If you have any enquiries about the content of this SDS please email [lubricantSDS@shell.com](mailto:lubricantSDS@shell.com)

#### Recommended use of the chemical and restrictions on use

Recommended use : Antifreeze and coolant.

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Oral) : Category 4  
Reproductive toxicity : Category 1B  
Specific target organ toxicity - repeated exposure : Category 2 (Kidney)

#### GHS label elements

Hazard pictograms :



Signal word : DangerDanger

Hazard statements : PHYSICAL HAZARDS:  
Not classified as a physical hazard under GHS criteria.  
HEALTH HAZARDS:  
H302 Harmful if swallowed.  
H360FD May damage fertility. May damage the unborn child.

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

**ENVIRONMENTAL HAZARDS:**

Not classified as an environmental hazard under GHS criteria.

**PHYSICAL HAZARDS:**

Not classified as a physical hazard under GHS criteria.

**HEALTH HAZARDS:**

H302 Harmful if swallowed.

H360 May damage fertility or the unborn child.

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

**ENVIRONMENTAL HAZARDS:**

Not classified as an environmental hazard under GHS criteria.

Precautionary statements :

**Prevention:**

P264 Wash hands thoroughly after handling.

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

P264 Wash hands thoroughly after handling.

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

**Response:**

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

P330 Rinse mouth.

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

P330 Rinse mouth.

**Storage:**

P405 Store locked up.

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

P501 Dispose of contents/ container to an approved waste disposal plant.

**Additional Information:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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

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

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P314 Get medical advice/ attention if you feel unwell.

Hazardous components which must be listed on the label:

Contains Ethylene Glycol, CAS# 107-21-1.

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### Other hazards which do not result in classification

Intentional abuse, misuse or other massive exposure may cause multiple organ damage and or death.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Mixture of ethylene glycol, water and additives.

#### Hazardous components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
Ethanediol	107-21-1	Acute Tox.4; H302 STOT RE2; H373	25 - 35
disodium tetraborate pentahydrate	12179-04-3	Repr.1B; H360 Acute Tox.5; H303 Eye Irrit.2; H319	0.1 - 0.5

For explanation of abbreviations see section 16.

### SECTION 4. FIRST-AID MEASURES

If inhaled : No treatment necessary under normal conditions of use.  
If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.  
If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
If persistent irritation occurs, obtain medical attention.

If swallowed : If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.  
Rinse mouth.

Most important symptoms and effects, both acute and delayed : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas.  
Ingestion may result in nausea, vomiting and/or diarrhoea.

Protection of first-aiders : When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.

Notes to physician : Treat symptomatically.  
Call a doctor or poison control center for guidance.

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### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable extinguishing media : Do not use water in a jet.
- Specific hazards during firefighting : Hazardous combustion products may include:  
A complex mixture of airborne solid and liquid particulates and gases (smoke).  
Carbon monoxide may be evolved if incomplete combustion occurs.  
Unidentified organic and inorganic compounds.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).
- Hazchem Code : NONE

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid contact with skin and eyes.
- Environmental precautions : Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely
- For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
- Additional advice : For guidance on selection of personal protective equipment

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see Section 8 of this Safety Data Sheet.

For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

Local authorities should be advised if significant spillages cannot be contained.

### SECTION 7. HANDLING AND STORAGE

**General Precautions** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.  
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

**Advice on safe handling** : Avoid prolonged or repeated contact with skin.  
Avoid inhaling vapour and/or mists.  
When handling product in drums, safety footwear should be worn and proper handling equipment should be used.  
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

**Avoidance of contact** : Strong oxidising agents.

#### Storage

**Other data** : Keep container tightly closed and in a cool, well-ventilated place.  
Use properly labeled and closable containers.  
Store at ambient temperature.

**Packaging material** : Suitable material: For containers or container linings, use mild steel or high density polyethylene.  
Unsuitable material: Zinc., Avoid contact with galvanized materials.

**Container Advice** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

### SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethenediol	107-21-1	TWA (particulate)	10 mg/m <sup>3</sup>	AU OEL
Further information: Skin absorption				
Ethenediol		TWA	20 ppm	AU OEL

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		(Vapour)	52 mg/m <sup>3</sup>	
	Further information: Skin absorption			
Ethanediol		STEL (Vapour)	40 ppm 104 mg/m <sup>3</sup>	AU OEL
	Further information: Skin absorption			
Ethanediol	107-21-1	TWA (Vapour)	25 ppm	ACGIH
Ethanediol		STEL (Vapour)	50 ppm	ACGIH
Ethanediol		STEL (Inhalable fraction, Aerosol only)	10 mg/m <sup>3</sup>	ACGIH
disodium tetraborate pentahydrate	12179-04-3	TWA	1 mg/m <sup>3</sup>	AU OEL
disodium tetraborate pentahydrate	12179-04-3	TWA (Inhalable particulate matter)	2 mg/m <sup>3</sup>	ACGIH
disodium tetraborate pentahydrate		STEL (Inhalable particulate matter)	6 mg/m <sup>3</sup>	ACGIH

### Biological occupational exposure limits

No biological limit allocated.

### Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods  
<http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods  
<http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances  
<http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany  
<http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

**Engineering measures** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances.

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Appropriate measures include:  
Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

### General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

### Personal protective equipment

#### Protective measures

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Respiratory protection : No respiratory protection is ordinarily required under normal conditions of use.  
In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for the combination of organic gases and vapours and particles [Type A/Type P boiling point >65°C (149°F)].

Hand protection  
Remarks : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on

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usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

- Eye protection : If material is handled such that it could be splashed into eyes, protective eyewear is recommended.
- Skin and body protection : Skin protection is not ordinarily required beyond standard work clothes.  
It is good practice to wear chemical resistant gloves.
- Thermal hazards : Not applicable

### Environmental exposure controls

- General advice : Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Section 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water.  
Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid at room temperature.
- Colour : green
- Odour : characteristic
- Odour Threshold : Data not available
- pH : Not applicable
- Melting point/freezing point : <= -18 °C / <= -0.40 °F



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(50.0 hPa)  
Method: ASTM D1177

Melting / freezing point	Not applicable Data not available
Initial boiling point and boiling range	: > 100 °C / 212 °F estimated value(s)
Flash point	: Method: Unspecified Not applicable
Evaporation rate	: Data not available
Flammability (solid, gas)	: Data not available
Upper explosion limit	: Typical 15 %(V)
Lower explosion limit	: Typical 3 %(V)
Vapour pressure	: Data not available (50 °C / 122 °F)
Relative vapour density	: no data available
Density	: 1,050 - 1,060 kg/m <sup>3</sup> (20 °C / 68 °F) Method: ASTM D4052
Solubility(ies)	
Water solubility	: completely soluble
Solubility in other solvents	: Data not available
Partition coefficient: n-octanol/water	: Data not available
Auto-ignition temperature	: > 200 °C / 392 °F
Decomposition temperature	: Data not available
Viscosity	
Viscosity, dynamic	: Data not available
Viscosity, kinematic	: Method: Unspecified Not applicable
Explosive properties	: Classification Code: Not classified
Oxidizing properties	: Data not available
Conductivity	: This material is not expected to be a static accumulator.
Particle size	: Data not available

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Molecular weight : Not applicable

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### SECTION 10. STABILITY AND REACTIVITY

Chemical stability : Stable.

Possibility of hazardous reactions : Reacts with strong oxidising agents.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Strong oxidising agents.

Hazardous decomposition products : No decomposition if stored and applied as directed.

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### SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment : Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Exposure routes : Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

#### Acute toxicity

##### Product:

Acute oral toxicity : LD50 rat: > 500 - 2,000 mg/kg  
Remarks: Harmful if swallowed.

Acute inhalation toxicity : LC 50 Rat: > 5 mg/l  
Exposure time: 4 h  
Remarks: Low toxicity

Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg  
Remarks: Low toxicity

##### Components:

##### **Ethanediol:**

Acute oral toxicity : LD 50 Rat, male and female: > 2,000 mg/kg  
Method: Acceptable non-standard method.  
Remarks: Harmful if swallowed.  
There is a marked difference in acute oral toxicity between rodents and man, man being more susceptible than rodents.  
The estimated fatal dose for man is 100 milliliters (1/2 cup).

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This material has also been shown to be toxic and potentially lethal by ingestion to cats and dogs.

- Acute inhalation toxicity : LC 50 Rat, male and female: > 2.5 mg/l  
Exposure time: 6 h  
Test atmosphere: Aerosol  
Method: Literature data  
Remarks: LC50 > 1.0 - <= 5.0 mg/l  
LC50 greater than near-saturated vapour concentration.  
Based on available data, the classification criteria are not met.
- Acute dermal toxicity : LD 50 Mouse, male and female: > 2,000 mg/kg  
Method: Literature data  
Remarks: Based on available data, the classification criteria are not met.

### Skin corrosion/irritation

**Product:**

Remarks: Slightly irritating to skin., Based on available data, the classification criteria are not met.

**Components:**

**Ethenediol:**

Species: Rabbit

Method: Acceptable non-standard method.

Remarks: Slightly irritating to skin., Insufficient to classify.

### Serious eye damage/eye irritation

**Product:**

Remarks: Slightly irritating to the eye., Based on available data, the classification criteria are not met.

**Components:**

**Ethenediol:**

Species: Rabbit

Method: Acceptable non-standard method.

Remarks: Slightly irritating to the eye., Insufficient to classify.

### Respiratory or skin sensitisation

**Product:**

Remarks: Not a skin sensitiser.

Based on available data, the classification criteria are not met.

**Components:**

**Ethenediol:**

Species: Guinea pig

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Method: Literature data

Remarks: Based on available data, the classification criteria are not met.

### Chronic toxicity

#### Germ cell mutagenicity

**Product:**

: Remarks: Non mutagenic, Based on available data, the classification criteria are not met.

**Components:**

**Ethanediol:**

Genotoxicity in vitro

: Method: OECD Test Guideline 471

Remarks: Based on data from similar materials

: Method: Acceptable non-standard method.

Remarks: Based on data from similar materials

: Method: Literature data

Remarks: Based on data from similar materials

: Test species: RatMethod: Literature data

Remarks: Based on available data, the classification criteria are not met.

Germ cell mutagenicity-  
Assessment

: This product does not meet the criteria for classification in categories 1A/1B.

### Carcinogenicity

**Product:**

Remarks: Not a carcinogen., Based on available data, the classification criteria are not met.

**Components:**

**Ethanediol:**

Species: Mouse, (male and female)

Application Route: Oral

Method: Literature data

Remarks: Based on available data, the classification criteria are not met.

Carcinogenicity -  
Assessment

: This product does not meet the criteria for classification in categories 1A/1B.

Material	GHS/CLP Carcinogenicity Classification
Ethanediol	No carcinogenicity classification.
disodium tetraborate pentahydrate	No carcinogenicity classification.

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### Reproductive toxicity

#### Product:

:  
Remarks: May damage fertility., May cause harm to the unborn child.

#### Components:

##### Ethanediol:

: Species: Rat  
Sex: male and female  
Application Route: Oral  
  
Method: Literature data  
Remarks: Based on available data, the classification criteria are not met.

Effects on foetal development

: Species: Rat, male and female  
Application Route: Oral  
Method: Literature data  
Remarks: Based on available data, the classification criteria are not met., Causes foetotoxicity in animals; considered to be secondary to maternal toxicity.

Reproductive toxicity - Assessment

: This product does not meet the criteria for classification in categories 1A/1B.

##### disodium tetraborate pentahydrate:

Remarks: May damage fertility. May damage the unborn child.

### STOT - single exposure

#### Product:

Remarks: Based on available data, the classification criteria are not met.

#### Components:

##### Ethanediol:

Remarks: Inhalation of vapours or mists may cause irritation to the respiratory system., Based on available data, the classification criteria are not met., Ingestion may cause drowsiness and dizziness.

### STOT - repeated exposure

#### Product:

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Remarks: Kidney: can cause kidney damage.

### Components:

#### **Ethanediol:**

Exposure routes: Oral

Target Organs: Kidney

Remarks: May cause damage to organs or organ systems through prolonged or repeated exposure.

### Repeated dose toxicity

#### Components:

#### **Ethanediol:**

Rat, male:

Application Route: Oral

Method: Test(s) equivalent or similar to OECD Test Guideline 408

Target Organs: Kidney

### Aspiration toxicity

#### Product:

Not an aspiration hazard.

#### Components:

#### **Ethanediol:**

Based on available data, the classification criteria are not met.

### Further information

#### Product:

Remarks: Slightly irritating to respiratory system.

Remarks: Inhalation of vapours or mists may cause irritation to the respiratory system.

#### Components:

#### **Ethanediol:**

Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

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## SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Ecotoxicological data have not been determined specifically for this product.  
Information given is based on a knowledge of the components and the ecotoxicology of similar products.  
Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

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### Ecotoxicity

#### Product:

- Toxicity to fish (Acute toxicity) :  
Remarks: LC/EC/IC50 > 100 mg/l  
Practically non toxic:  
Based on available data, the classification criteria are not met.
- Toxicity to crustacean (Acute toxicity) :  
Remarks: LC/EC/IC50 > 100 mg/l  
Practically non toxic:  
Based on available data, the classification criteria are not met.
- Toxicity to algae/aquatic plants (Acute toxicity) :  
Remarks: LC/EC/IC50 > 100 mg/l  
Practically non toxic:  
Based on available data, the classification criteria are not met.
- Toxicity to fish (Chronic toxicity) :  
Remarks: Based on available data, the classification criteria are not met.
- Toxicity to crustacean (Chronic toxicity) :  
Remarks: Based on available data, the classification criteria are not met.
- Toxicity to microorganisms (Acute toxicity) :  
Remarks: Based on available data, the classification criteria are not met.

#### Components:

##### **Ethenediol :**

- Toxicity to fish (Acute toxicity) :  
LC50 (Pimephales promelas (fathead minnow)): 72,860 mg/l  
Exposure time: 96 h  
Method: Other guideline method.  
Remarks: Practically non toxic:  
LC/EC/IC50 > 100 mg/l
- Toxicity to crustacean (Acute toxicity) :  
EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: Practically non toxic:  
LC/EC/IC50 > 100 mg/l
- Toxicity to algae/aquatic plants (Acute toxicity) :  
EC50 (Pseudokirchneriella subcapitata (algae)): 6,500 - 13,000 mg/l  
Exposure time: 96 h  
Method: Other guideline method.  
Remarks: Practically non toxic:  
LC/EC/IC50 > 100 mg/l
- Toxicity to microorganisms (Acute toxicity) :  
EC20 (Activated sludge, domestic waste): > 1,995 mg/l  
Exposure time: 0.5 h  
Method: Other guideline method.  
Remarks: Practically non toxic:

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LC/EC/IC50 > 100 mg/l

Toxicity to fish (Chronic toxicity) : NOEC: 15,380 mg/l  
Exposure time: 7 d  
Species: Pimephales promelas (fathead minnow)  
Method: Other guideline method.  
Remarks: NOEC/NOEL > 100 mg/l

Toxicity to crustacean(Chronic toxicity) : NOEC: 8,590 mg/l  
Exposure time: 7 d  
Species: Chironomus sp. (midge)  
Method: Other guideline method.  
Remarks: NOEC/NOEL > 100 mg/l

### Persistence and degradability

#### Product:

Biodegradability : Remarks: Readily biodegradable.

#### Components:

##### Ethanediol :

Biodegradability : Biodegradation: 90 - 100 %  
Exposure time: 10 d  
Method: OECD Test Guideline 301A  
Remarks: Readily biodegradable.

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: Does not bioaccumulate significantly.

Partition coefficient: n-octanol/water : Remarks: Data not available

#### Components:

##### Ethanediol :

Bioaccumulation : Remarks: Does not have the potential to bioaccumulate significantly.

### Mobility in soil

#### Product:

Mobility : Remarks: Liquid under most environmental conditions., If product enters soil, it will be highly mobile and may contaminate groundwater., Dissolves in water., Poses a significant risk of oxygen depletion in aquatic systems.

#### Components:

##### Ethanediol :

Mobility : Remarks: Disperses in water., If product enters soil, one or more constituents will be highly mobile and may contaminate groundwater.

### Other adverse effects

#### Product:



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Additional ecological information : Does not have ozone depletion potential, photochemical ozone creation potential or global warming potential.

**Components:**

**Ethanediol :**

Results of PBT and vPvB assessment : The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

Additional ecological information : Does not have ozone depletion potential.

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### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues : Recover or recycle if possible.  
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.  
Do not dispose into the environment, in drains or in water courses.

Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.

Waste, spills or used product is dangerous waste.

Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.

MARPOL - see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides technical aspects at controlling pollutions from ships.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.  
Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Local legislation  
Remarks : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

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### SECTION 14. TRANSPORT INFORMATION

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### National Regulations

#### ADG

Not regulated as a dangerous good

### International Regulations

#### IATA-DGR

Not regulated as a dangerous good

#### IMDG-Code

Not regulated as a dangerous good

### Maritime transport in bulk according to IMO instruments

MARPOL Annex 1 rules apply for bulk shipments by sea.

### Special precautions for user

Remarks : Special Precautions: Refer to Section 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

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## SECTION 15. REGULATORY INFORMATION

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

Standard for the Uniform : Schedule 5  
Scheduling of Medicines and  
Poisons

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Product classified as per Work Health Safety Regulations – Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) 2012 and SDS prepared as per national model code of practice for preparation of safety data sheet for Hazardous chemicals 2020 based on Globally Harmonized Classification version 7.

National Model Code of Practice for the Labelling of Workplace Hazardous Chemicals (2011).

Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG code). Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

### Other international regulations

#### The components of this product are reported in the following inventories:

EINECS : Not established.  
TSCA : All components listed.  
AIIIC : Listed introduction

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## SECTION 16. OTHER INFORMATION

### Full text of H-Statements

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H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

### Full text of other abbreviations

Acute Tox.	Acute toxicity
Eye Irrit.	Eye irritation
Repr.	Reproductive toxicity
STOT RE	Specific target organ toxicity - repeated exposure

### Abbreviations and Acronyms

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Date of preparation or review : 11.10.2023

### Further information

Other information : A vertical bar (|) in the left margin indicates an amendment from the previous version.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a

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guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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