



## SAFETY DATA SHEET

ZEREX™ G-05® 50/50 Antifreeze Coolant

Version: 2.1

Revision Date: 11/19/2025

Print Date:  
12/04/2025

### SECTION 1. IDENTIFICATION

Product name : ZEREX™ G-05® 50/50 Antifreeze Coolant

Product code : ZXG05RU1

#### Manufacturer or supplier's details

Company name of supplier : Valvoline Global Operations

Address : 100 Valvoline Way  
Lexington, KY 40509  
United States of America (USA)

Telephone : 1-800-TEAMVAL (1-800-832-6825)

E-mail address : SDS@valvolineglobal.com

Emergency telephone number : +1-800-VALVOLINE (+1-800-825-8654)

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (Oral) : Category 4

Reproductive toxicity : Category 1B

Specific target organ toxicity : Category 2 (Kidney)  
- repeated exposure (Oral)

#### Other hazards

None known.

#### GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 Harmful if swallowed.  
H360 May damage fertility or the unborn child.  
H373 May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.



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Precautionary statements

:

### Prevention:

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe mist or vapours.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves, protective clothing, eye protection and face protection.

### Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

### Storage:

P405 Store locked up.

### Disposal:

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

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

### Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)
ethanediol	107-21-1*	$\geq 30 - \leq 60$
2,2' -oxybisethanol	111-46-6*	$\geq 1 - \leq 5$
sodium benzoate	532-32-1*	$\geq 0.5 - \leq 1.5$
disodium tetraborate pentahydrate	12179-04-3*	$\geq 0.5 - \leq 1.5$
sodium nitrite	7632-00-0*	$\geq 0.1 - \leq 1$

\* Indicates that the identifier is a CAS No.

## SECTION 4. FIRST AID MEASURES

General advice

:

Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.

If inhaled

:

If unconscious, place in recovery position and seek medical advice.

If symptoms persist, call a physician.

In case of eye contact

:

Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.



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If swallowed	: Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	: No symptoms known or expected. Harmful if swallowed. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure if swallowed.
Notes to physician	: No hazards which require special first aid measures. Treat symptomatically.

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: No hazardous combustion products are known
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment.
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

## SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanediol	107-21-1	TWA (Vapour)	25 ppm	ACGIH
		STEL (Vapour)	50 ppm	ACGIH
		STEL (Inhalable fraction, Aerosol only)	10 mg/m <sup>3</sup>	ACGIH
		C	50 ppm 125 mg/m <sup>3</sup>	OSHA P0
2,2' -oxybisethanol	111-46-6	TWA	10 mg/m <sup>3</sup>	US WEEL
sodium benzoate	532-32-1	TWA (Inhalable)	2.5 mg/m <sup>3</sup>	ACGIH

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		particulate matter)		
disodium tetraborate pentahydrate	12179-04-3	TWA	1 mg/m3	NIOSH REL
		TWA	10 mg/m3	OSHA P0
		TWA (Inhalable particulate matter)	2 mg/m3 (Borate)	ACGIH
		STEL (Inhalable particulate matter)	6 mg/m3 (Borate)	ACGIH

**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : light yellow

Odour : No data available

Odour Threshold : No data available

pH : Average 8.0

Melting point/freezing point : No data available

Boiling point/boiling range : 225 °F / 107 °C (1013.3 hPa)

Flash point : > 250.0 °F / > 121.1 °C

Method: Cleveland open cup



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Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	15.3 %(V)
Lower explosion limit / Lower flammability limit	:	1.7 %(V)
Vapour pressure	:	1.800 mmHg (68.00 °F / 20.00 °C)
Relative vapour density	:	> 1.000 AIR=1
Relative density	:	No data available
Density	:	1.0779 g/cm3 (60.01 °F / 15.56 °C)
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Oxidizing properties	:	No data available

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### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	excessive heat Exposure to moisture Do not allow evaporation to dryness.
Incompatible materials	:	Acids Aldehydes Alkali metals



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Hazardous decomposition products : Alkaline earth metals  
aluminum  
Bases  
Fluorine  
Hydrogen fluoride  
Lead  
lithium  
sodium  
strong alkalis  
Strong oxidizing agents  
Sulphur compounds  
Zinc  
Peroxides  
No hazardous decomposition products are known.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Harmful if swallowed.

#### Product:

Acute oral toxicity : Acute toxicity estimate: 1,011 mg/kg  
Method: Calculation method

#### Components:

##### ethanediol:

Acute oral toxicity : LD0 (Human): estimated 1.56 g/kg

Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): 10.9 mg/l  
Exposure time: 1 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): 9,530 mg/kg

Acute toxicity (other routes of administration) : LD50 (Rat): 5,010 mg/kg  
Application Route: Intraperitoneal

LD50 (Rat): 3,260 mg/kg  
Application Route: Intravenous

##### 2,2' -oxybisethanol:



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Acute oral toxicity : LD50 (Human): Expected 1,120 mg/kg  
Target Organs: Kidney

Acute inhalation toxicity : LC50 (Rat): > 4.6 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): 13,300 mg/kg

### **disodium tetraborate pentahydrate:**

Acute oral toxicity : LD50 (Rat): 3,200 - 3,400 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2.0 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

### **sodium nitrite:**

Acute oral toxicity : LD50 (Rat): 180 mg/kg

Acute inhalation toxicity : LC50 (Rat): 5.5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

### **Skin corrosion/irritation**

Not classified due to lack of data.

### **Components:**

#### **ethanediol:**

Species : Rabbit  
Result : No skin irritation

#### **2,2' -oxybisethanol:**

Species : Human  
Result : Slight, transient irritation

### **disodium tetraborate pentahydrate:**

Result : No skin irritation

### **sodium nitrite:**

Assessment : No skin irritation  
Result : No skin irritation



**Serious eye damage/eye irritation**

Not classified due to lack of data.

**Components:**

**ethanediol:**

Result : Slight, transient irritation

**2,2' -oxybisethanol:**

Species : Rabbit

Result : Slight, transient irritation

**sodium benzoate:**

Result : Irritating to eyes.

Method : OECD Test Guideline 405

**disodium tetraborate pentahydrate:**

Species : Rabbit

Result : Slight, transient irritation

**sodium nitrite:**

Result : Irritating to eyes.

Assessment : Irritating to eyes.

**Respiratory or skin sensitisation**

**Skin sensitisation**

Not classified due to lack of data.

**Respiratory sensitisation**

Not classified due to lack of data.

**Components:**

**ethanediol:**

Test Type : Maximisation Test

Species : Guinea pig

Assessment : Does not cause skin sensitisation.

**2,2' -oxybisethanol:**

Test Type : Maximisation Test

Species : Guinea pig

Method : Directive 67/548/EEC, Annex V, B.6.

Result : Did not cause sensitisation on laboratory animals.

**disodium tetraborate pentahydrate:**

Assessment : Does not cause skin sensitisation.



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### Germ cell mutagenicity

Not classified due to lack of data.

#### Components:

##### **ethanediol:**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Result: negative

##### **2,2' -oxybisethanol:**

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: yes

Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 479  
Result: negative  
GLP: yes

Genotoxicity in vivo : Test Type: In vivo micronucleus test  
Species: Mouse  
Method: OECD Test Guideline 474  
Result: negative  
GLP: yes

### Carcinogenicity

Not classified due to lack of data.

#### Components:

##### **sodium nitrite:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

##### **IARC**

Group 2A: Probably carcinogenic to humans  
sodium nitrite 7632-00-0  
(nitrite (ingested) under conditions that result in endogenous nitrosation)  
Group 2A: Probably carcinogenic to humans  
sodium nitrate 7631-99-4  
(nitrate (ingested) under conditions that result in endogenous nitrosation)

##### **OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.



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**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

May damage fertility or the unborn child.

**Components:**

**disodium tetraborate pentahydrate:**

Reproductive toxicity - : Clear evidence of adverse effects on sexual function and  
Assessment fertility, and/or on development, based on animal experiments

**STOT - single exposure**

Not classified due to lack of data.

**STOT - repeated exposure**

May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

**Components:**

**ethanediol:**

Exposure routes : Ingestion  
Target Organs : Kidney  
Assessment : May cause damage to organs through prolonged or repeated exposure.

**Aspiration toxicity**

Not classified due to lack of data.

**Experience with human exposure**

**Components:**

**ethanediol:**

Ingestion : Target Organs: Kidney

**2,2' -oxybisethanol:**

General Information : Liver  
Kidney

**Further information**

**Product:**

Remarks : No data available



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### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Product:

##### Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

##### Components:

##### ethanediol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 27,540 mg/l  
Exposure time: 96 h  
Test Type: static test

LC50 (Pimephales promelas (fathead minnow)): 8,050 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 10,000 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 6,500 - 13,000 mg/l  
End point: Growth inhibition  
Exposure time: 7 d

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 32,000 mg/l  
Exposure time: 7 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 24,000 mg/l  
Exposure time: 7 d

##### Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

##### 2,2' -oxybisethanol:

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 10,000 mg/l  
Exposure time: 24 h  
Test Type: static test  
Method: DIN 38412



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### Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

### sodium benzoate:

### Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

### disodium tetraborate pentahydrate:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Remarks: Information refers to the main component.

Toxicity to algae/aquatic plants : NOEC (Selenastrum capricornutum (green algae)): 118 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Remarks: Information refers to the main component.

Toxicity to fish (Chronic toxicity) : NOEC (Danio rerio (zebra fish)): 37.7 mg/l  
Exposure time: 34 d  
Remarks: Information refers to the main component.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia (water flea)): 40 mg/l  
Exposure time: 21 d  
Remarks: Information refers to the main component.

### Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

### sodium nitrite:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 2.35 - 3.81 mg/l  
Exposure time: 96 h  
Test Type: flow-through test

LC50 (Oncorhynchus mykiss (rainbow trout)): 0.54 - 26.3 mg/l  
Exposure time: 96 h  
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 15.4 mg/l  
Exposure time: 48 h  
Test Type: static test



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Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC (Ictalurus catus (catfish)): 6.16 mg/l  
Exposure time: 31 d  
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Aquatic invertebrates): 9.86 mg/l  
Exposure time: 80 d  
Test Type: static test

Toxicity to microorganisms : EC10 (activated sludge): 210 mg/l  
Exposure time: 3 h  
Test Type: Static  
Method: OECD Test Guideline 209

### Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Not classified based on available information.

### Persistence and degradability

#### Components:

##### **ethanediol:**

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

##### **2,2' -oxybisethanol:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 70 - 80 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

### Bioaccumulative potential

#### Components:

##### **ethanediol:**

Bioaccumulation : Species: Crayfish (Procambarus)  
Bioconcentration factor (BCF): 0.27  
Exposure time: 61 d



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Concentration: 1000 mg/l  
Method: Flow through

Partition coefficient: n-octanol/water : log Pow: -1.36

### **2,2' -oxybisethanol:**

Bioaccumulation : Species: Leuciscus idus (Golden orfe)  
Bioconcentration factor (BCF): 100

Partition coefficient: n-octanol/water : log Pow: -1.47

### **disodium tetraborate pentahydrate:**

Bioaccumulation : Remarks: Does not bioaccumulate.

### **sodium nitrite:**

Partition coefficient: n-octanol/water : log Pow: -3.700 (77 °F / 25 °C)

### **Mobility in soil**

No data available

### **Other adverse effects**

### **Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82  
Protection of Stratospheric Ozone - CAA Section 602 Class I  
Substances  
Remarks: This product neither contains, nor was  
manufactured with a Class I or Class II ODS as defined by the  
U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A +  
B).

Additional ecological information : No data available

### **Global warming potential**

**Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) of the  
United Nations Framework Convention on Climate Change (UNFCCC)**

### **Components:**

#### **octamethylcyclotetrasiloxane [D4]:**

20-year global warming potential: 2.66  
100-year global warming potential: 0.739  
500-year global warming potential: 0.211  
Atmospheric lifetime: 0.027 yr  
Radiative efficiency: 0.12 Wm<sup>2</sup>ppb  
Further information: Miscellaneous compounds



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### octamethyltrisiloxane:

20-year global warming potential: 1.17  
100-year global warming potential: 0.325  
500-year global warming potential: 0.093  
Atmospheric lifetime: 0.019 yr  
Radiative efficiency: 0.06 Wm<sup>2</sup>ppb  
Further information: Miscellaneous compounds

### decamethylcyclopentasiloxane:

20-year global warming potential: 1.04  
100-year global warming potential: 0.289  
500-year global warming potential: 0.082  
Atmospheric lifetime: 0.016 yr  
Radiative efficiency: 0.098 Wm<sup>2</sup>ppb  
Further information: Miscellaneous compounds

### dodecamethylcyclohexasiloxane:

20-year global warming potential: 0.51  
100-year global warming potential: 0.142  
500-year global warming potential: 0.04  
Atmospheric lifetime: 0.011 yr  
Radiative efficiency: 0.086 Wm<sup>2</sup>ppb  
Further information: Miscellaneous compounds

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

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## SECTION 14. TRANSPORT INFORMATION

### International Regulations

#### UNRTDG

Not regulated as a dangerous good

#### IATA-DGR

Not regulated as a dangerous good





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## IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

## National Regulations

### 49 CFR

Not regulated as a dangerous good

### Special precautions for user

Not applicable

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

## SECTION 15. REGULATORY INFORMATION

### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
methanol	67-56-1	100	100 (F003)
toluene	108-88-3	100	100 (F005)

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

ethanediol                      107-21-1                      >= 30 - < 50 %

### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

ethanediol                      107-21-1                      >= 30 - < 50 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489):

ethanediol                      107-21-1                      >= 30 - < 50 %  
2,2' -oxybisethanol                      111-46-6                      >= 1 - < 5 %  
sodium benzoate                      532-32-1                      >= 1 - < 5 %



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### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

sodium nitrite	7632-00-0	>= 0.1 - < 1 %
sodium hydroxide	1310-73-2	>= 0 - < 0.1 %
toluene	108-88-3	>= 0 - < 0.1 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

sodium nitrite	7632-00-0	>= 0.1 - < 1 %
sodium hydroxide	1310-73-2	>= 0 - < 0.1 %
toluene	108-88-3	>= 0 - < 0.1 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

### US State Regulations

#### Massachusetts Right To Know

water	7732-18-5
ethanediol	107-21-1

#### Pennsylvania Right To Know

water	7732-18-5
ethanediol	107-21-1
2,2' -oxybisethanol	111-46-6
sodium nitrite	7632-00-0
sodium hydroxide	1310-73-2

#### Maine Chemicals of High Concern

water	7732-18-5
octamethylcyclotetrasiloxane [D4]	556-67-2
toluene	108-88-3

#### Vermont Chemicals of High Concern

water	7732-18-5
ethanediol	107-21-1
octamethylcyclotetrasiloxane [D4]	556-67-2
toluene	108-88-3

#### Washington Chemicals of High Concern

water	7732-18-5
ethanediol	107-21-1
toluene	108-88-3

#### California Prop. 65

WARNING: This product can expose you to chemicals including ethanediol, methanol, toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### California List of Hazardous Substances

ethanediol	107-21-1
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### California Permissible Exposure Limits for Chemical Contaminants

ethanediol

107-21-1

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

TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	All substances listed as active on the TSCA inventory
AIIC	:	On the inventory, or in compliance with the inventory
DSL	:	All components of this product are on the Canadian DSL
ENCS	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
NZIoC	:	Not in compliance with the inventory

#### TSCA list

The following substance(s) is/are subject to a Significant New Use Rule:

sodium nitrite	7632-00-0	See 40 CFR § 721.4740; Proposed Rule
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The following substance(s) is/are subject to TSCA 12(b) export notification requirements:

sodium nitrite	7632-00-0
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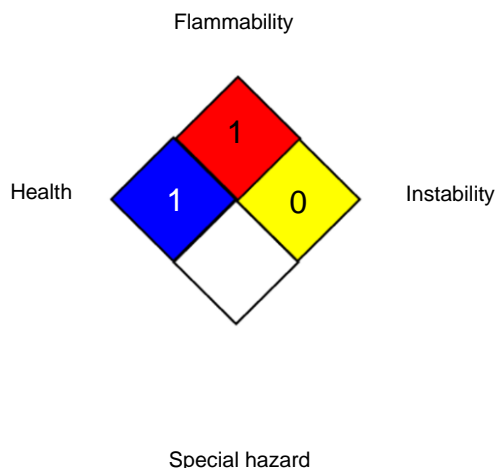
#### Inventories

AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

## SECTION 16. OTHER INFORMATION

### Further information

**NFPA 704:**



**HMIS® IV:**

<b>HEALTH</b>	*	<b>2</b>
<b>FLAMMABILITY</b>		<b>1</b>
<b>PHYSICAL HAZARD</b>		<b>0</b>

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

**Full text of other abbreviations**

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / C	:	Ceiling limit
US WEEL / TWA	:	8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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 -



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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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

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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 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.

US / EN

Internal information : R0321370