



SAFETY DATA SHEET

US OSHA Hazard Communication Standard (29 CFR 1910.1200)
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA)
and the Hazardous Products Regulation (HPR)

METALGUARD® E-5100

Low-Conductivity Coolant $\leq 100 \mu S$

Version number: 1.0

Date: 10-September-2024

NGHS / English

SDS Number: 160

SECTION 1: Identification

1.1 Product identifier

Trade name

METALGUARD E-5100 Coolant

Product number

E5100

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

Relevant identified uses

Electric vehicle coolant
Industrial use
Professional use
Consumer uses

Uses advised against

Do not use for other than recommended use

1.3 Details of the supplier of the safety data sheet

WEBA Technology
500 Cummings Center, Suite 6050
01915 Beverly
United States

Telephone: +1 681-265-2314
e-mail: info@webacorp.com
e-mail (competent person)

info@webacorp.com

1.4 Emergency telephone number

Emergency information service

CHEMTREC: +1-703-527-3887 (INTERNATIONAL)
This number is only available during the following office hours: Mon-
Fri 09:00 - 17:00

Poison center		
Country	Name	Telephone
United States	CHEMTREC	+1-703-527-3887 (INTERNATIONAL) +1-800-424-9300 (NORTH AMERICA)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.10	acute toxicity (oral)	4	Acute Tox. 4	H302
A.7	reproductive toxicity	2	Repr. 2	H361
A.9	specific target organ toxicity - repeated exposure	2	STOT RE 2	H373

For full text of H-phrases: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- signal word Warning

- pictograms

GHS07, GHS08



- hazard statements

H302 Harmful if swallowed.
H361 Suspected of damaging fertility or the unborn child.
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.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
P308+P313 If exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P330 Rinse mouth.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- hazardous ingredients for labelling

Contains: ethanediol; Methyl-1H-benzotriazole; 2,2'-oxybisethanol.

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

Endocrine disrupting properties

Contains an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$. (Section 11 & 12).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

The product does not contain (other) ingredients which are classified according to present knowledge of the supplier and contribute to the classification of the product and hence require reporting in this section.

Name of sub-stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes	Remarks
ethanediol	CAS No 107-21-1	50 – < 75	Acute Tox. 4 / H302 STOT RE 2 / H373 HNOC002			
2,2'-oxybisethanol	CAS No 111-46-6	1 – < 2.5	Acute Tox. 4 / H302			

Consideration of other advice

In compliance with OSHA Hazard Communication Standard 29 CFR 1910.1200(i), the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a Trade Secret.

Remarks

All the percentages given are percentages by weight unless stated otherwise. For full text of H-phrases: see SECTION 16.

SECTION 4: First-aid measures**4.1 Description of first-aid measures****General notes**

Do not leave affected person unattended. Remove victim out of the danger area. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

Following skin contact

Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Following eye contact

Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion

Rinse mouth with water (only if the person is conscious). Induce vomiting when the affected person is not unconscious. Call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

For specialist advice physicians should contact the poison center.

SECTION 5: Fire-fighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Water spray; Alcohol resistant foam; Dry extinguishing powder; Carbon dioxide (CO₂);
Coordinate firefighting measures to the fire surroundings.

Unsuitable extinguishing media

Water jet.

5.2 Special hazards arising from the substance or mixture**Hazardous combustion products**

During fire hazardous fumes/smoke could be produced: carbon monoxide (CO), carbon dioxide (CO₂).

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Self-contained breathing apparatus (SCBA). Standard protective clothing for firefighters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases. Wear personal protective equipment/face protection.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomite, diatomaceous earth, acid binder, universal binder, sawdust).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feed.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- incompatible substances or mixtures

Oxidizing substances, acids.

Control of the effects

Protect against external exposure, such as

High temperatures. UV-radiation/sunlight. Frost.

Consideration of other advice

Store in a well-ventilated place. Keep container tightly closed. Do not use pressure to empty container or it may rupture with explosive force.

- packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)									
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Notation	Source
US	ethylene glycol	107-21-1	TLV®				10	i, aerosol	ACGIH® 2024
US	ethylene glycol	107-21-1	TLV®	25		50		vap	ACGIH® 2024

Notation

aerosol as aerosols

i inhalable fraction

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

vap as vapors

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
ethanediol	107-21-1	DNEL	35 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
ethanediol	107-21-1	DNEL	106 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
ethanediol	107-21-1	DNEL	7 mg/m³	human, inhalatory	consumer (private households)	chronic - local effects
ethanediol	107-21-1	DNEL	53 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
2,2'-oxybisethanol	111-46-6	DNEL	44 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
2,2'-oxybisethanol	111-46-6	DNEL	60 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
2,2'-oxybisethanol	111-46-6	DNEL	43 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2,2'-oxybisethanol	111-46-6	DNEL	12 mg/m³	human, inhalatory	consumer (private households)	chronic - systemic effects
2,2'-oxybisethanol	111-46-6	DNEL	12 mg/m³	human, inhalatory	consumer (private households)	chronic - local effects
2,2'-oxybisethanol	111-46-6	DNEL	21 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
Methyl-1H-benzotriazole	29385-43-1	DNEL	0.25 mg/kg bw/day	human, oral	consumer (private households)	acute - systemic effects

Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Methyl-1H-benzotriazole	29385-43-1	DNEL	21.2 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Methyl-1H-benzotriazole	29385-43-1	DNEL	0.3 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Methyl-1H-benzotriazole	29385-43-1	DNEL	350 µg/m ³	human, inhalatory	consumer (private households)	chronic - systemic effects
Methyl-1H-benzotriazole	29385-43-1	DNEL	0.01 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
Methyl-1H-benzotriazole	29385-43-1	DNEL	0.01 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects

Relevant PNECs of components						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
ethanediol	107-21-1	PNEC	10 mg/l	aquatic organisms	water	intermittent release
ethanediol	107-21-1	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)
ethanediol	107-21-1	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
ethanediol	107-21-1	PNEC	199.5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
ethanediol	107-21-1	PNEC	37 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
ethanediol	107-21-1	PNEC	3.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
ethanediol	107-21-1	PNEC	1.53 mg/kg	terrestrial organisms	soil	short-term (single instance)
2,2'-oxybisethanol	111-46-6	PNEC	10 mg/l	aquatic organisms	water	intermittent release
2,2'-oxybisethanol	111-46-6	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)
2,2'-oxybisethanol	111-46-6	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
2,2'-oxybisethanol	111-46-6	PNEC	199.5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2,2'-oxybisethanol	111-46-6	PNEC	20.9 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2,2'-oxybisethanol	111-46-6	PNEC	2.09 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2,2'-oxybisethanol	111-46-6	PNEC	1.53 mg/kg	terrestrial organisms	soil	short-term (single instance)
Methyl-1H-benzotriazole	29385-43-1	PNEC	0.086 mg/l	aquatic organisms	water	intermittent release
Methyl-1H-benzotriazole	29385-43-1	PNEC	0.008 mg/l	aquatic organisms	freshwater	short-term (single instance)
Methyl-1H-benzo-	29385-43-1	PNEC	20 µg/l	aquatic organisms	marine water	short-term (single

Relevant PNECs of components						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
triazole						instance)
Methyl-1H-benzo-triazole	29385-43-1	PNEC	39.4 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Methyl-1H-benzo-triazole	29385-43-1	PNEC	0.117 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Methyl-1H-benzo-triazole	29385-43-1	PNEC	0.292 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Methyl-1H-benzo-triazole	29385-43-1	PNEC	18.7 µg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation. Provide eyewash stations and safety showers at the workplace.

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection

Skin protection



Chemical protective clothing.

Hand protection



Wear suitable gloves. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these 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.

- type of material

PVC: polyvinyl chloride, Nitrile rubber, Polychloroprene

- material thickness

Use gloves with a minimum material thickness: ≥ 0.11 mm.

- breakthrough time of the glove material

Use gloves with a minimum breakthrough time of the glove material: >480 minutes (permeation: level 6).

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Type: ABEK-P2 (combined filters against gases, vapors and particles, color code: Brown/Grey/Yellow/Green/White). Observe the OSHA respirator regulations cited in 29 CFR 1910.134 and use NIOSH/MSHA approved respirators.

Environmental exposure controls

Take appropriate precautions to avoid uncontrolled release into the environment. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	clear
Particle	not relevant (liquid)
Odor	mild

Other safety parameters

pH (value)	5.7-6.3
Melting point/freezing point	-36 °C -34 °F
Initial boiling point and boiling range	109 °C 229 °F
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)
Explosive limits	LEL: UEL: not determined
Vapor pressure	2.3 kPa at 20 °C 2.3 kPa at 68 °F calculated value, referring to a component of the mixture
Density	not determined
Vapor density	information on this property is not available
Relative density	1.070-1.080 (water = 1)

Solubility

- water solubility	miscible in any proportion
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- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	372 °C 701.6 °F (auto-ignition temperature (liquids and gases)) calculated value, referring to a component of the mixture
Decomposition temperature	no data available

Viscosity not determined

- kinematic viscosity	not determined
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Explosive properties	none
Oxidizing properties	none

9.2 Other information

Miscibility	Completely miscible with water.
Temperature class (USA, acc. to NEC 500)	T2 (maximum permissible surface temperature on the equipment: 300°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Incompatible materials.

10.5 Incompatible materials

Acids, oxidizers.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Harmful if swallowed.

- acute toxicity estimate (ATE)

Exposure route	ATE
Oral	969 mg/kg

Acute toxicity estimate (ATE) of components			
Name of substance	CAS No	Exposure route	ATE
ethanediol	107-21-1	oral	500 mg/kg
2,2'-oxybisethanol	111-46-6	oral	500 mg/kg
Methyl-1H-benzotriazole	29385-43-1	oral	720 mg/kg

Acute toxicity of components					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
ethanediol	107-21-1	oral	LD50	7,712 mg/kg	rat
ethanediol	107-21-1	dermal	LD50	>3,500 mg/kg	mouse
2,2'-oxybisethanol	111-46-6	dermal	LD50	13,300 mg/kg	rabbit
Methyl-1H-benzotriazole	29385-43-1	oral	LD50	720 mg/kg	rat
Methyl-1H-benzotriazole	29385-43-1	dermal	LD50	>2,000 mg/kg	rabbit

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Suspected of damaging the unborn child. Suspected of damaging fertility.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards**Endocrine disrupting properties**

Contains an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.

Endocrine Disruptor lists				
Name of substance	CAS No	Endocrine disruptor for human health	Endocrine disruptor for the environment	Listed in
1,2,3-Benzotriazole	95-14-7		yes	List II

Legend

List II Substances under evaluation for endocrine disruption under an EU legislation

SECTION 12: Ecological information**12.1 Toxicity**

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
ethanediol	107-21-1	ErC50	<13,000 mg/l	algae	96 h
ethanediol	107-21-1	LC50	53,000 mg/l	fish	96 h
ethanediol	107-21-1	EC50	>100 mg/l	aquatic invertebrates	48 h
ethanediol	107-21-1	NOEC	>100 mg/l	algae	72 h
2,2'-oxybisethanol	111-46-6	EC50	>10,000 mg/l	aquatic invertebrates	24 h
2,2'-oxybisethanol	111-46-6	LC50	75,222 mg/l	fish	96 h
2,2'-oxybisethanol	111-46-6	NOEC	>100 mg/l	algae	72 h
Methyl-1H-benzotriazole	29385-43-1	LC50	240 mg/l	fish	24 h
Methyl-1H-benzotriazole	29385-43-1	EC50	15.8 mg/l	aquatic invertebrates	48 h
Methyl-1H-benzotriazole	29385-43-1	ErC50	75 mg/l	algae	72 h
Methyl-1H-benzotriazole	29385-43-1	NOEC	30 mg/l	fish	96 h
Methyl-1H-benzotriazole	29385-43-1	growth (EbCx) 10%	8.56 mg/l	aquatic invertebrates	48 h
Methyl-1H-benzotriazole	29385-43-1	growth rate (Er-Cx) 10%	1.18 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
ethanediol	107-21-1	EC50	>15,000 mg/l	aquatic invertebrates	21 d
ethanediol	107-21-1	LC50	>1,500 mg/l	fish	28 d
ethanediol	107-21-1	NOEC	>40 mg/l	fish	28 d
ethanediol	107-21-1	growth (EbCx) 20%	>1,995 mg/l	microorganisms	30 min
2,2'-oxybisethanol	111-46-6	LC50	>1,500 mg/l	fish	28 d
2,2'-oxybisethanol	111-46-6	EC50	33,911 mg/l	aquatic invertebrates	21 d
2,2'-oxybisethanol	111-46-6	NOEC	>40 mg/l	fish	28 d
2,2'-oxybisethanol	111-46-6	growth (EbCx) 20%	>1,995 mg/l	microorganisms	30 min
Methyl-1H-benzotriazole	29385-43-1	LC50	240 mg/l	fish	24 h
Methyl-1H-benzotriazole	29385-43-1	EC50	>37.6 mg/l	aquatic invertebrates	21 d
Methyl-1H-benzotriazole	29385-43-1	NOEC	18.4 mg/l	aquatic invertebrates	21 d
Methyl-1H-benzotriazole	29385-43-1	LOEC	37.6 mg/l	aquatic invertebrates	21 d
Methyl-1H-benzotriazole	29385-43-1	growth (EbCx) 10%	0.97 mg/l	aquatic invertebrates	21 d

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

12.6 Endocrine disrupting properties

Contains an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.

Endocrine Disruptor lists				
Name of substance	CAS No	Endocrine disruptor for human health	Endocrine disruptor for the environment	Listed in
1,2,3-Benzotriazole	95-14-7		yes	List II

Legend

List II Substances under evaluation for endocrine disruption under an EU legislation

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself. Do not use pressure to empty container or it may rupture with explosive force.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information**14.1 UN number**

DOT	NOT REGULATED
IMDG-Code	NOT REGULATED
ICAO-TI	NOT REGULATED

14.2 Special precautions for user

There is no additional information.

14.3 Transport in bulk according to IMO instruments

No data available.

Additional information for each of the UN Model Regulations**Transport of dangerous goods by road or rail (49 CFR US DOT). In bulk tank trucks or rail - additional information**

DOT Particulars in the shipper's declaration	RQ, UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (ETHYLENE GLYCOL), 9 III
Danger label(s)	9, fish and tree
	
Special provisions (SP)	8, 146, 173, 335, 441, IB3, T4, TP1, TP29
ERG No	171

CANADA Transport information - national regulations - additional information (UN RTDG), bulk tank trucks or rail.

UN number	3082
Class	9
Environmental hazards	yes (hazardous to the aquatic environment)
Packing group	III
Danger label(s)	9, fish and tree



Special provisions (SP)	274, 331, 335, 375 (UN RTDG)
Excepted quantities (EQ)	E1 (UN RTDG)
Limited quantities (LQ)	5 L (UN RTDG)

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations specific for the product in question****National regulations (United States)****Toxic Substance Control Act (TSCA)**

all ingredients are listed (ACTIVE) or exempt from listing

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

None of the ingredients are listed.

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name acc. to inventory	CAS No	Remarks	Effective date
ethylene glycol	107-21-1		1987-01-01

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name acc. to inventory	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
ethylene glycol	107-21-1		3	5000 (2270)

Legend

3 "3" indicates that the source is section 112 of the Clean Air Act

Clean Air Act

None of the ingredients are listed.

Right to Know Hazardous Substance List**- Cleaning Product Right to Know Act Substance List (CA-RTK)**

Name acc. to inventory	CAS No	Functionality	Authoritative Lists
			OEHHA RELs Prop 65
Glycol ethers			CA TACs

- Toxic or Hazardous Substance List (MA-TURA)

Name acc. to inventory	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshold	De Minimis Concentration Threshold
Ethylene glycol	107-21-1				1.0 %
Glycol Ethers		1022			1.0 %

- Hazardous Substances List (MN-ERTK)

Name acc. to inventory	CAS No	References	Remarks
Ethylene glycol	107-21-1	A	particulate vapor
Diethylene glycol	111-46-6	I	

Legend

- A American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
- I American Industrial Hygiene Association (AIHA), "Workplace Environmental Exposure Level Guides" (1992), available from AIHA

- Hazardous Substance List (NJ-RTK)

Name acc. to inventory	CAS No	Remarks	Classifications
ethylene glycol (1,2-ethanediol)	107-21-1		
glycol, ethers			

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name acc. to inventory	CAS No	Classification
1,2-ETHANEDIOL	107-21-1	E
ETHANOL, 2,2'-OXYBIS-	111-46-6	
GLYCOL ETHERS		E

Legend

- E Environmental hazard

- Hazardous Substance List (RI-RTK)

Name acc. to inventory	CAS No	References
Ethylene glycol	107-21-1	T, F
Diethylene glycol	111-46-6	F

Legend

- F Flammability (NFPA®)

Legend

- T Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals			
Name acc. to inventory	CAS No	Remarks	Type of the toxicity
ethylene glycol (ethanediol)	107-21-1		developmental

Industry or sector specific available guidance(s)
NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	1	irritation or minor reversible injury possible
Flammability	0	material that will not burn under typical fire conditions
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	0	material that will not burn under typical fire conditions
Health	1	material that, under emergency conditions, can cause significant irritation
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National regulations (Canada)

Domestic Substances List (DSL)

All ingredients are listed.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information, including date of preparation or last revision
Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2024	From ACGIH®, 2024 TLVs® and BEIs® Book. Copyright 2024. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate

Abbr.	Descriptions of used abbreviations
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
ED	Endocrine disruptor
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LEL	Lower explosion limit (LEL)
LHS	Lower hazard substance
LOEC	Lowest Observed Effect Concentration
NFPA®	National Fire Protection Association (United States)
NOEC	No Observed Effect Concentration
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Repr.	Reproductive toxicity
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
UEL	Upper explosion limit (UEL)
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.
Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

Issuing Date: 10-September-2024
Prior Revision Date: None
Revision Note: No information available

Disclaimer

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**** End of Safety Data Sheet ****