



To Our Customers:

The attached Safety Data Sheet (SDS) was prepared by the vendor of the product you purchased through one of our divisions. We used the manufacturer's electronic document directly or scanned a paper copy and generated a file for our automated SDS delivery system.

All statements, technical information, and recommendations contained therein are solely that of the manufacturer of the product. We at Zep Inc. did not verify the accuracy and completeness of the statements and do not warrant or guarantee the information. We provide vendor SDSs to assist our customers in their compliance efforts. The attached document is in compliance with one of the respective country regulatory requirements noted below:

The OSHA Hazard Communication Standard (in the United States)
The Hazardous Products Regulations (in Canada)

We made every effort to deliver all of the information prepared by the manufacturer. We cannot anticipate all conditions under which this information will be used. If you have any questions about the statements on the SDS, please contact the company shown on the document.

Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team
Zep Inc.

Safety Data Sheet (SDS)

According to Regulation (EC) No. 1907/2006

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade Name : Battery System Coolant (-40°C) BSC-2 60%

UFI : 9M00-J0R7-S00G-FAEK

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

Relevant identified uses: Battery System Coolant for Electric Vehicle

1.3. Details of the supplier of the safety data sheet

Supplier : KD Finechem Co., Ltd (☎ +82-31-680-0505)

Address : 286, Pyeongtaekhang-ro, Poseung-eup, Pyeongtaek-si, Gyeonggi-do, Korea

Competent person responsible for the safety data sheet

Name : Jaejune Yoon

E-mail : yc0103@kdrnd.co.kr

1.4. Emergency telephone number

Opening hours: KST 09:00 ~ 17:00

TEL. +82-31-680-0505 / FAX. +82-31-680-0507 or European emergency number: 112

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

1) Physicochemical : Not Classified

2) Health hazards :

Acute toxicity (oral) : Category 4 (H302)

Specific target organ toxicity following repeat exposure(STOT RE) : Category 2 (H373)(kidneys)

3) Environmental hazards : Not Classified

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

1) Pictogram



2) Signal Word : Warning

3) Hazard Statement(s)

H302 : Harmful if swallowed.

H373 : May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

4) Precautionary Statement(s)

■ Precautionary

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

P264 : Wash thoroughly after handling.

P270 : Do no eat, drink or smoke when using this product.

■ Response

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

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

P330 : Rinse mouth.

■ Storage

No data available

■ Disposal

P501 : Dispose of contents and container in accordance with applicable regulations.

According to Regulation (EC) No 1272/2008 [CLP]

Hazard determining component(s) for labelling: ETHYLENE GLYCOL (ethanediol)

2.3 Other hazards.

According to Regulation (EC) No 1272/2008 [CLP]

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Substance name	Product identifier	Content in % weight	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1. ETHYLENE GLYCOL	CAS no. : 107-21-1 EC List no: 203-473-3 REACH Registration No. : 01-2119456816-28-0000	55 ~ 65 %	Acute Tox. 4 / H302 STOT RE 2 / H373
2. WATER	CAS no. : 7732-18-5 EC List no : 231-791-2 REACH Registration No. :	35 ~ 45 %	Not Classified
3. 2-ethylhexanoic acid	CAS no. : 149-57-5 EC List no : 205-743-6 REACH Registration No. :	0 ~ 1 %	Not Classified

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

SECTION 4 First aid measures

4.1 Description of first aid measures

4.1.1. General notes

Consult a physician. Show this safety data sheet to the doctor in attendance.

Immediately remove contaminated clothing.

4.1.2. Following inhalation

If breathed in, move person into fresh air.

If not breathing, give artificial respiration.

Consult a physician.

4.1.3. Following skin contact

Wash off with soap and plenty of water.

Consult a physician.

4.1.4 Following eye contact

Flush eyes with water as a precaution.

4.1.5 Following ingestion

Never give anything by mouth to an unconscious person.

Rinse mouth with water.

Consult a physician.

4.1.6 Self-protection of the first aider

First aider : Pay attention to self-protection

4.2 Most important symptoms and effects, both acute and delayed

agitation, Nausea, Vomiting, Tiredness, ataxia (impaired locomotor coordination), CNS disorders, Unconsciousness

4.3 Indication of any immediate medical attention and special treatment needed

Laxative: Sodium sulfate (1 tablespoon/1/4 l water).

SECTION 5 Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: Water - full jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

Carbon oxides, harmful vapours, In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise.

5.3. Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

5.4 Further information

The degree of risk is governed by the burning substance and the fire conditions.

Contaminated extinguishing water must be disposed of in accordance with official regulations.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

- Use personal protective equipment.
- Avoid breathing vapors, mist or gas.
- Ensure adequate ventilation.
- Evacuate personnel to safe areas.
- Refer to protective measures listed in sections 7 and 8.

6.1.2 For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

See also the information in "For non-emergency personnel".

6.2. Environmental precautions

- Prevent further leakage or spillage if safe to do so.
- Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Spill: Stop leak if without risk. Contain and collect spillage with non-combustible, absorbent material e. g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

6.4. Reference to other sections

- See Section 1 for emergency contact information.
- See Section 8 for information on appropriate personal protective equipment.
- See Section 13 for additional waste treatment information.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Protective measures

- Use only with adequate ventilation. Put on appropriate personal protective equipment (see Section 8).
- Wear appropriate respirator when ventilation is inadequate.
- Avoid exposure - obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not get in eyes or on skin or clothing.
- Do not breathe vapour or mist.
- Empty containers retain product residue and can be hazardous.
- Do not reuse container.
- Do not ingest.
- Wash thoroughly after handling. Avoid exposure during pregnancy.
- Do not eat, drink or smoke when using this product.

Advice on general occupational hygiene

- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
- Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Do not store in unlabelled containers. Keep container tightly closed. Keep container in a cool, well-ventilated area.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): Combustible liquids

7.3 Specific end uses

Recommendations : Coolant and antifreeze.

Industrial sector specific solutions : Not available

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

Exposure limit value

1. ETHYLENE GLYCOL

Occupational exposure limit values (Workplace Exposure Limits)

KOREA OEL : Ceiling=100mg/m³ (Vapor or Mist)

ACGIH : TWA=10mg/m³ (25ppm), Ceiling=100mg/m³, STEL=50ppm

OSHA : Ceiling=125mg/m³ (50ppm)

NIOSH : Ceiling=50ppm

Austria : TWA=26mg/m³ (10ppm)

Croatia : TWA=52mg/m³ (20ppm), STEL=104mg/m³ (40ppm)

Czech Republic : TWA=50mg/m³, Ceiling=100mg/m³

Australia : TWA=10mg/m³ (Dust), 52mg/m³ (20ppm) (Vapor), STEL=104mg/m³ (40ppm)(Vapor)

Bahrain : STEL=45mg/m³

China : : TWA=20mg/m³, STEL=40mg/m³ (25ppm)

EU OEL : Skin Designation - The substance can be absorbed through the skin. STEL value 104 mg/m³; 40 ppm

DNELs (Derived no effect levels) :

Worker DNEL longterm	Systemic effects	dermal	106 mg/kg Body weight
Worker DNEL longterm	Local effects	inhalation	35 mg/m ³
Consumer DNEL, longterm	Systemic effects	dermal	53 mg/kg Body weight
Consumer DNEL, longterm	Local effects	inhalation	7 mg/m ³

PNECs (Predicted no effect concentrations) :

PNEC Fresh water	10 mg/l
PNEC Marine water	1 mg/l
PNEC Aquatic intermittent release	10 mg/l
PNEC Fresh water sediment	20,9 mg/kg
PNEC Soil	1,53 mg/kg
PNEC Sewage treatment plant	199,5 mg/kg

2. WATER

Occupational exposure limit values (Workplace Exposure Limits)

KOREA OEL : No Data available

ACGIH : No Data available

OSHA : No Data available

NIOSH : No Data available

DNELs (Derived no effect levels) :

No data available

PNECs (Predicted no effect concentrations) :

No data available

3. 2-ethylhexanoic acid

Occupational exposure limit values (Workplace Exposure Limits)

KOREA OEL : No Data available

ACGIH : TLV-TWA = 5 mg/m³ (inhalable fraction and vapor),

OSHA : No Data available

NIOSH : No Data available

DNELs (Derived no effect levels) :

Worker DNEL longterm	Systemic effects	dermal	
Worker DNEL longterm	Systemic effects	inhalation	14 mg/m ³
Consumer DNEL, longterm	Systemic effects	dermal	
Consumer DNEL, longterm	Systemic effects	inhalation	3.5 mg/m ³
Consumer DNEL, longterm	Systemic effects	Oral	

PNECs (Predicted no effect concentrations) :

PNEC Fresh water	0.36 mg/l
PNEC Marine water	0.036 mg/l
PNEC Aquatic intermittent release	0.493 mg/l
PNEC Fresh water sediment	6.37 mg/kg
PNEC Marine water sediment	0.637 mg/kg
PNEC Soil	1.06 mg/kg
PNEC Sewage treatment plant	71.7 mg/L

8.2 Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.

Wash hands before breaks and at the end of workday.

8.2.2. Personal protective equipment

8.2.2.1. Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

8.2.2.2. Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

butyl rubber (butyl) - 0.7 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

8.2.2.3. Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2.2.4. Thermal hazards

No specific measures.

8.2.3. Environmental exposure controls

Prevent further leakage or spillage if safe to do so.

Do not let product enter drains.

Discharge into the environment must be avoided.

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

A. Physical state	liquid,
B. Color	Clear Blue
C Odor	Softly peculiar smell
D. Melting Point / Freezing Point	< - 40 °C
E. Boiling point or initial boiling point and boiling range	> 100°C
F. Flammability	No data available
G. Lower and upper explosion limit	3.2 ~ 15.3% (Ethylene Glycol)
H. Flash point	>111°C
I. Auto-ignition temperature	398°C (Ethylene Glycol)
J. Decomposition temperature	No data available
K. pH	7.0 ~ 8.0
L. Kinematic viscosity	No data available
M. Solubility (in water)	Soluble
N. Partition coefficient n-octanol/water (log value)	-1.36 (Log Kow)
O. Vapour pressure	7 Pa(20°C) (Ethylene Glycol)
P. Density and/or relative density	1.060 ~ 1.090 g/cm ³ at 20 °C
Q. Relative vapour density	(Air=1) : 1.2 (Ethylene Glycol)
R. Particle characteristics	No data available

9.2. Other information

Self heating ability: It is not a substance capable of spontaneous heating.

Hygroscopy: Non-hygroscopic

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

SECTION 10 Stability and reactivity

10.1 Reactivity : No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal

Formation of flammable gases: Forms no flammable gases in the presence of water

10.2 Chemical stability : Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions : No hazardous reactions when stored and handled according to instructions.

10.4 Conditions to avoid : Avoid open flames.

10.5 Incompatible materials : Strong acids, Strong oxidizing agents, Strong bases, Aldehydes, Aluminum

10.6 Hazardous decomposition products

In the event of fire: see section 5

Hazardous decomposition products: No hazardous decomposition products known.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

1. ETHYLENE GLYCOL

Acute toxicity

Oral : LD50 7,712 mg/kg bw / Rat male, female / according to BASF-internal standards

Inhalation : LC50 > 2.5 mg/L air / Rat male, female

Dermal : LD50 > 3,500 mg/kg bw / Mouse male, female

skin corrosion/irritation; : Skin - Rabbit(Ethylene glycol) Result: No skin irritation

serious eye damage/irritation;; Eyes - Rabbit(Ethylene glycol) Result: No eyes irritation

respiratory or skin sensitisation; : No data available

germ cell mutagenicity : Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Carcinogenicity :

OSHA : Not listed

NTP : Not listed

IARC (GROUP) : Not listed

ACGIH : A4

EC : Not listed

Reproductive toxicity : Laboratory experiments have shown teratogenic effects. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Developmental toxicity : Assessment of teratogenicity: Developmental toxicity was observed after oral ingestion of high doses in studies with rats and mice, but this effect was not seen in a study with rabbits. Mechanistic studies show that the rabbit is the relevant species for the classification for human health. As such, and since ethylene glycol is not a developmental toxicant in the rabbit, no classification is warranted.

Specified target organ general toxicity - single exposure : No data available

Specified target organ general toxicity - repetitive exposure : The substance may cause damage to the kidney after

repeated ingestion. The substance may cause damage to the kidney after repeated skin contact with high doses.

Aspiration respiratory organs hazard : No data available

Signs and Symptoms of Exposure : No data available

Additional Information : No data available

2. WATER

Acute toxicity

Oral : LD50 90000mg/kg Rat

Inhalation : No data available

Dermal : No data available

skin corrosion/irritation : No data available

serious eye damage/irritation : No data available

respiratory or skin sensitisation : No data available

germ cell mutagenicity : No data available

Carcinogenicity :

OSHA : Not listed

NTP : Not listed

IARC (GROUP) : Not listed

ACGIH : Not listed

EC: Not listed

Reproductive toxicity : No data available

Developmental toxicity : No data available

Specified target organ general toxicity - single exposure : No data available

Specified target organ general toxicity - repetitive exposure : No data available

Aspiration respiratory organs hazard : No data available

Signs and Symptoms of Exposure : No data available

Additional Information : No data available

3. 2-ethylhexanoic acid

Acute toxicity

Oral : LD50 Oral - Rat - 3.000 mg/kg

Skin : LD50 Dermal - Rat - > 2.000 mg/kg (OECD Test Guideline 402)

Inhalation : No data available

skin corrosion/irritation : Mild skin irritation

serious eye damage/irritation : Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405)

respiratory or skin sensitisation : No data available

germ cell mutagenicity : Test Type: Human Test system: lymphocyte Remarks: Sister chromatid exchange

Carcinogenicity :

OSHA : Not listed

NTP : Not listed

IARC (GROUP) : Not listed

ACGIH : Not listed

EC: Not listed

Reproductive toxicity : Suspected human reproductive toxicant Suspected of damaging the unborn child.

Developmental toxicity : No data available

Specified target organ general toxicity - single exposure : No data available

Specified target organ general toxicity - repetitive exposure : No data available

Aspiration respiratory organs hazard : No data available

Signs and Symptoms of Exposure : No data available

Additional Information : No data available

11.2 Further information

The product has not been tested.

The statements on toxicology have been derived from the properties of the individual components.

SECTION 12 Ecological information

12.1 Toxicity

1. ETHYLENE GLYCOL

Fishes : LC50 72860mg/L 96hr Pimephales promelas

Crustacea : LC50 MIN 100mg/L 48hr Daphnia magna(OECD Guideline 202, GLP)

Algae/aquatic plants : EC50 6500~13000mg/L 96hr (Pseudokirchnerella subcapitata, EPA 600/9-78-018)

2. WATER

Fishes : No data available

Crustacea : No data available

Algae/aquatic plants : No data available

3. 2-ethylhexanoic acid

Fishes : No data available

Crustacea : EC50 85.4 mg/L 48 hr

Algae/aquatic plants : No data available

12.2 Persistence and Degradability

1. ETHYLENE GLYCOL

Persistence : No data available

Degradability : 100 %; 10 d; aerobic OECD Test Guideline 301A Readily biodegradable

Biochemical Oxygen Demand (BOD) : 780 mg/g (5 d) (IUCLID)

Chemical Oxygen Demand (COD) : 1.190 mg/g (IUCLID)

Theoretical oxygen demand (ThOD) : 1.290 mg/g (IUCLID)

Ratio BOD/ThBOD : BOD5 60 % (IUCLID)

2. WATER

Persistence : log Kow - 1.38

Degradability : No data available

3. 2-ethylhexanoic acid

Persistence : No data available

Degradability : No data available

12.3 Bioaccumulative potential

1. ETHYLENE GLYCOL

Accumulation : Partition coefficient: n-octanol/water log Pow: -1,36 (experimental)

2. WATER

Accumulation : No data available

3. 2-ethylhexanoic acid

Accumulation : No data available

12.4 Mobility in Soil

1. ETHYLENE GLYCOL : 0.2 (Estimated Value) (Ref. HSDB)

2. WATER : No data available.

3. 2-ethylhexanoic acid: No data available

12.5 Result of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative /toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6 Endocrine disrupting properties

"This product does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100.

12.7 Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

12.8 Additional information

Adsorbable organically-bound halogen (AOX): This product contains no organically-bound halogen.

Other ecotoxicological advice: The product has not been tested. The statement has been derived from the properties of the individual components.

Do not release untreated into natural waters.

SECTION 13 Disposal considerations

13.1 Waste treatment methods

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

13.1.1. Product / Packaging disposal

Product

Hazardous waste: Yes

European waste catalogue (EWC)

Waste code : 16 01 14*

Waste designation : antifreeze fluids containing hazardous substances

Must be disposed of or incinerated in accordance with local regulations.

Packaging

Contaminated packaging: Uncontaminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents

13.1.2. Waste treatment-relevant information

Can be incinerated together with household waste in compliance with applicable technical regulations following consultation with approved waste disposal management companies and authorities in charge.

13.1.3. Sewage disposal-relevant information

Release to the environment or sewage system is prohibited. Must be treated as hazardous waste.

13.1.4. Other disposal recommendations

Handle contaminated packages in the same way as the substance itself.

SECTION 14 Transport information

14.1 UN number or ID number

ADR/RID: Not regulated.

IMDG: Not regulated.

IATA: Not regulated.

14.2 UN proper shipping name

ADR/RID : Not regulated as dangerous goods

IMDG : Not regulated as dangerous goods

IATA : Not regulated as dangerous goods

14.3. Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4. Packing group

ADR/RID: -

IMDG: -

IATA: -

14.5. Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

14.6. Special precautions for user

No data available

14.7. . Maritime transport in bulk according to IMO instruments

No data available

SECTION 15 Regulatory Information

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

1. Ethylene Glycol

E.U

Harmonised Classification : Acute Tox. 4 * (H302)

Major Accident Hazard Legislation : SEVESO III(Directive 2012/18/EU) - Not regulated

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants(POPs) and amending Directive 79/117/EEC : Not regulated

Substances of very high concern (SVHC) (EC1907/2006 Annex XIV): Not regulated

Annex XVII of Regulation (EC) No 1907/2006: Not regulated

Take note of Dir 94/33/EC on the protection of young people at work.

U.S & CANADA

OSHA regulation (29 CFR1910.119) : No

CERCLA 103 regulation(40 CFR 302.4) : 2267.95kg 5000lb

EPCRA 302 regulation(40 CFR355.30) : No

EPCRA 304 regulation(40 CFR355.40) : No
EPCRA 313 regulation(40 CFR372.65) : Yes
US. Toxic Substances Control Act : Listed
CEPA - Domestic Substances List (DSL) : Listed
CALIFORNIA PROPOSITION 65 : Yes (Developmental)

2. Water

E.U

Harmonised Classification : -
Major Accident Hazard Legislation : SEVESO III(Directive 2012/18/EU) - Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not regulated
Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants(POPs) and amending Directive 79/117/EEC : Not regulated
Substances of very high concern (SVHC) (EC1907/2006 Annex XIV): None of the components are listed.

U.S & CANADA

OSHA regulation (29 CFR1910.119) : No
CERCLA 103 regulation(40 CFR 302.4) : No
EPCRA 302 regulation(40 CFR355.30) : No
EPCRA 304 regulation(40 CFR355.40) : No
EPCRA 313 regulation(40 CFR372.65) : No
US. Toxic Substances Control Act : Listed
CEPA - Domestic Substances List (DSL) : Listed
CALIFORNIA PROPOSITION 65 : No

2. Water

E.U

Harmonised Classification : Repr. 2 (H361d)
Major Accident Hazard Legislation : SEVESO III(Directive 2012/18/EU) - Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not regulated
Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants(POPs) and amending Directive 79/117/EEC : Not regulated
Substances of very high concern (SVHC) (EC1907/2006 Annex XIV): None of the components are listed.

U.S & CANADA

OSHA regulation (29 CFR1910.119) : No
CERCLA 103 regulation(40 CFR 302.4) : No
EPCRA 302 regulation(40 CFR355.30) : No
EPCRA 304 regulation(40 CFR355.40) : No
EPCRA 313 regulation(40 CFR372.65) : No
US. Toxic Substances Control Act : Listed
CEPA - Domestic Substances List (DSL) : Listed
CALIFORNIA PROPOSITION 65 : No

Other EU regulations

Product use : Consumer applications, Industrial applications, Professional applications

15.2 Chemical safety assessment

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

SECTION 16 Other Information

Assessment of the hazard classes according to UN GHS criteria (most recent version)

Acute toxicity (oral) : Category 4 (H302)

Specific target organ toxicity following repeat exposure(STOT RE) : Category 2 (H373)(kidneys)

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

H302 : Harmful if swallowed.

H373 : May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.

REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended.

Guidance on the compilation of safety data sheets Version 4.0 December 2020

The information presented herein is believed to be factual as it has been derived from the works from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warrant or representation for which KD Finechem Co., LTD. Bears legal responsibility. The user should review any recommendation in the specific context of the intended use to determine whether they are appropriate.

(i) Indication of changes

A. Issue date : 27. APR. 2021(SDS Version 2.0)

B. Last revision : 25. Jan. 2022 (SDS Version 2.1)

(Version 2.0 replaces the SDS version Guidance on the compilation of safety data sheets Ver. 4.0)

(ii) Abbreviations and acronyms

ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods Code

LEL = Lower Explosive Limit/Lower Explosion Limit

UEL = Upper Explosion Limit/Upper Explosive Limit

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

EC50 = Median Effective Concentration

LC50 = Median lethal concentration

LD50 = Median lethal dose

TLV = Threshold limits

TWA = time weighted average

STEL = Short term exposure limit

CEPA = CANADIAN ENVIRONMENTAL PROTECTION ACT

OSHA Occupational Chemical Database

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Acute Tox. Acute toxicity

STOT RE Specific target organ toxicity — repeated exposure