

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 18-12-2019 Revision date: 26-6-2023 Supersedes: 23-7-2021 version: 3.0

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

: Professional use

Anti-freezing agents

: Anti-freezing agents

1.1. Product identifier

Product form	: Mixture
Trade name	: MPM Coolant -26°C Ready to Use
UFI	: EFDE-FEW2-NH7V-PHF1
Product code	: 81000
Type of product	: Anti-freezing agents
Product group	: Mixture

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

1.2.1. Relevant identified uses

Main use category Use of the substance/mixture Function or use category

1.2.2. Uses advised against

Restrictions on use

: Use only as described in section 1.2.1 or contact supplier for advice.

1.3. Details of the supplier of the safety data sheet

MPM International Oil Company Cyclotronweg 1 2629 HN Delft - Nederland T +31 (0)15 2514030 info@mpmoil.nl - www.mpmoil.com

1.4. Emergency telephone number

Emergency number

: +31 (0)15 2514030 (08.00 - 17.00 GMT+1)

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 4	H302
Serious eye damage/eye irritation, Category 2	H319
Specific target organ toxicity – Repeated exposure, Category 2	H373
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP) GHS07 GHS08 CLP Signal word : Warning Contains : 1,2 ethanediol Hazard statements (CLP) : H302 - Harmful if swallowed. H319 - Causes serious eye irritation. H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral). Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor. P337+P313 - If eye irritation persists: Get medical advice/attention. P330 - Rinse mouth. P102 - Keep out of reach of children.

2.3. Other hazards

Not determined.

Not determined.

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,2 ethanediol	CAS-No.: 107-21-1 EC-No.: 203-473-3 EC Index-No.: 603-027-00-1 REACH-no: 01-2119456816- 28	≥ 35 – ≤ 40	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Potassium 2-ethylhexanoate	CAS-No.: 3164-85-0 EC-No.: 221-625-7 EC Index-No.: 221-625-7 REACH-no: 01-2119980714- 29	≥ 1 – < 1,5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361d

Comments

: Contains a small amount of Bitrex (> 25 ppm), also known as Denatonium Benzoate. More information under section 11.

Full text of H- and EUH-statements: see section 16

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 4: First aid measures			
4.1. Description of first aid measures			
General	: Remove the victim away from contaminated area. If unconscious, place in the recovery position and seek medical advice.		
After inhalation	. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.		
After skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.		
After eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophtalmologist if irritation persists.		
After ingestion	: Do NOT induce vomiting. If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink. Get immediate medical advice/attention.		
4.2. Most important symptoms and effects, both acute and delayed			
After inhalation After skin contact After eye contact After ingestion	 Harmful if inhaled. May cause skin irritation / dermatitis. Causes eye irritation. Harmful if swallowed. 		

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures			
5.1. Extinguishing media			
Suitable extinguishing media Unsuitable extinguishing media	 Water spray, powder, foam and CO2. Fight larger fires with water spray or alcohol resistant foam. Do not use a heavy water stream. 		
5.2. Special hazards arising from the substance or mixture			
Fire hazard Hazardous decomposition products in case of fire	 On exposure to high temperature, may decompose, releasing toxic vapours. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx). 		
5.3. Advice for firefighters			
Precautionary measures fire Other information	 Do not enter fire area without proper protective equipment, including respiratory protection. Cool containers / tanks with spray water if possible. Use a water spray to cool exposed surfaces and to protect fire-fighters. 		

SECTION 6: Accidental release measures			
6.1. Personal precautions, protective equipment and emergency procedures			
General measures	: Ventilate well. Use protective clothing. Mark out the contaminated area with signs and prevent access to unauthorized personnel.		
6.1.1. For non-emergency personnel			
Protective equipment	: Wear suitable protective clothing and eye/face protection.		
6.1.2. For emergency responders			
Protective equipment	: Wear suitable protective clothing and eye/face protection. Breathing apparatus.		
6.2. Environmental precautions			

Dilute with plenty of water. Avoid release to the environment.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

6.3. Methods and material for containment and cleaning up			
For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.		
Methods for cleaning up	: Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.		
Other information	: Provide adequate ventilation.		
6.4. Reference to other sections			

Information on safe handling - see Section 7. Information on personal protective equipment - see Chapter 8. Information on disposal - see Section 13.

7.1. Precautions for safe handling	
Precautions for safe handling Hygiene measures	 Provide local exhaust or general room ventilation. Avoid aerosol formation. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, i	ncluding any incompatibilities
Technical measures	: Ensure adequate ventilation, especially in confined areas. Store in tightly closed, leak-proc containers. Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Keep container tightly closed.
Incompatible products	: Strong bases. Oxidizing agent.
Storage temperature	: <40 (-20−40) °C
Information on mixed storage	: Keep in a cool, well-ventilated place away from acids.
Storage area	: Keep in a cool, well-ventilated place. Keep away from food, drink and animal feedingstuffs
Packaging materials	 Keep only in the original container in a cool, well-ventilated place away from combustible materials.

7.3. Specific end use(s)

Anti-freezing agents.

SECTION 8: Exposure controls/personal protection

8.1.1. National occupational exposure and biological limit values

1,2 ethanediol (107-21-1)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOELV TWA (mg/m ³)	52 mg/m³	
IOELV TWA (ppm)	20 ppm	
EU - Binding Occupational Exposure Limit (BOEL)		
BOEL TWA	104 mg/m³ TGG 15 min.	
BOEL TWA [ppm]	40 ppm	

8.1.2. Recommended monitoring procedures

No additional information available.

8.1.3. Air contaminants formed

No additional information available.

8.1.4. DNEL and PNEC

No additional information available.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.1.5. Control banding

No additional information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment: Gloves. Protective goggles.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

No special eye protection equipment recommended under normal conditions of use. Eye protection should only be necessary where hot liquid could be splashed or sprayed

8.2.2.2. Skin protection

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

Hand protection:

protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin.

SECTION 9: Physical and chemical properties		
9.1. Information on basic phys	ical and chemical properties	
Physical state	: Liquid	
Colour	: Blue.	
Appearance	: Hygroscopic.	
Odour	: Slight.	
Odour threshold	: Not available	
Melting point	: Not available	
Freezing point	: -11	
Boiling point	: 105 °C	
Flammability	: Not available	
Explosive properties	: Product is not explosive.	
Oxidising properties	No oxidising properties.	
Explosive limits	: Not available	
Lower explosion limit	: Not available	
Upper explosion limit	: Not available	
		5/40

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Flash point	: Not determined.
Auto-ignition temperature	: 398 °C (CAS 107-21-1)
Decomposition temperature	: Not available
Hq	: 8,4 (7,5 – 9)
Viscosity, kinematic	: Not determined.
Solubility	: In water, material soluble.
Log Kow	Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1056 (1020 – 1114) kg/m³ 20°C (ASTM D 4052)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle size	: Not determined.
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available.

9.2.2. Other safety characteristics

No additional information available.

SECTION 10: Stability and reactivity
10.1. Reactivity
No information available.
10.2. Chemical stability
No additional information available.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
No information available.
10.5. Incompatible materials
No information available.
10.6. Hazardous decomposition products
None under normal conditions.
SECTION 11: Toxicological information

11.1. Information on nazard classes as defined	In Regulation (EC) No 1272/2008
Acute toxicity (oral) : H	armful if swallowed.
Acute toxicity (dermal)	ot classified (Based on available data, the classification criteria are not met.)
Acute toxicity (inhalation) : N	ot classified (Based on available data, the classification criteria are not met.)
Additional information N	lay cause gastrointestinal irritation, nausea, vomiting and diarrhoea

44.4.1.5.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

MPM Coolant -26°C Ready to Use	
ATE CLP (oral)	520,833 mg/kg bodyweight
Potassium 2-ethylhexanoate (3164-85-0)	
LD50 oral rat	2043 mg/kg OECD 401
LD50 dermal rat	> 2000 mg/kg OECD 402
ATE CLP (oral)	2043 mg/kg bodyweight
1,2 ethanediol (107-21-1)	
LD50 dermal	> 3500 mg/kg (Mouse)
LC50 Inhalation - Rat	> 2,5 mg/l 6h
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met.) pH: 8,4 (7,5 – 9)
Serious eye damage/irritation	: Causes serious eye irritation.
Despiratory or alvin constituation	pH: $8,4$ (7,5 – 9)
Respiratory or skin sensitisation Germ cell mutagenicity	 Not classified (Based on available data, the classification criteria are not met.) Not classified (Based on available data, the classification criteria are not met.)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met.)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met.)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met.)
	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
STOT-repeated exposure	
Potassium 2-ethylhexanoate (3164-85-0)	
NOAEL (oral, rat, 90 days)	≈ 300 mg/kg bodyweight OECD 408
1,2 ethanediol (107-21-1)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met.)
MPM Coolant -26°C Ready to Use	
Viscosity, kinematic	Not determined.
11.2. Information on other hazards	
11.2.1. Endocrine disrupting properties	
Adverse health effects caused by endocrine disrupting properties	The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %
11.2.2. Other information	
Other information	: The mixture contains a small amount of Bitrex, which is a bittering agent and is a general description of chemical additives that are added to dangerous products to give it a bitter taste, which creates a strong aversion and as such prevents accidental poisonings for young people in particular children and pets. There are a number of possible chemicals that

SECTION 12: Ecological information	
12.1. Toxicity	
General	: According to the criteria of the EC-classification and labelling "dangerous for the environment" (93/21/EEC) the material/product is not to be classified as dangerous to the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified

can be used, but the best known is the Denatonium benzoate (CAS 3734-33-6).

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hazardous to the aquatic environment, long–term : Not classified (chronic)			
Potassium 2-ethylhexanoate (3164-85-0)			
LC50 fish 1	> 100 mg/l OECD 203 Oryzias latipes		
EC50 Daphnia 1	910 mg/l OECD 202 Daphnia magna		
EC50 Daphnia 2	112,1 mg/l static (bacteria) (DIN 38412, part 8, Pseudomonas putida		
EC50 72h - Algae [1]	49,3 mg/l static read across CAS 149057-5 nominal		
NOEC (chronic)	25 mg/l Daphnia magna @21d		
NOEC chronic crustacea	25 mg/l Daphnia @OECD 211, Daphnia magna 21d		
1,2 ethanediol (107-21-1)			
LC50 fish 1	72860 mg/l @96h Dikkop witvis (Pimephales promelas)		
EC50 Daphnia 1	> 100 mg/l OECD 202 (Daphnia magna)		
EC50 96h - Algae [1]	6500 – 13000 mg/l (EPA 600/9-78-018)		
NOEC (chronic)	≥ 1000 mg/l Mysidopsis bahia (Duration: 23 d)		
NOEC chronic fish	15380 mg/l (EPA EPA 600/4-89/001 (7d), Pimephales promelas) semi-static		
NOEC chronic crustacea	8590 mg/l (EPA 600/4-89/001, Ceriodaphnia dubia)		
12.2. Persistence and degradability			
Potassium 2-ethylhexanoate (3164-85-0)			
Biodegradation	99 % OECD 301E		

1,2 ethanediol (107-21-1)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Potassium 2-ethylhexanoate (3164-85-0)		
Log Pow 2,96 OECD Guideline 107		
1,2 ethanediol (107-21-1)		
Log Pow	-1,36	
12.4. Mobility in soil		
MPM Coolant -26°C Ready to Use		
Soil	Avoid release to the environment.	
12.5. Results of PBT and vPvB assessment		
MPM Coolant -26°C Ready to Use		
Not determined.		
Not determined.		

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by : The product does not contain any substances with endocrine disrupting properties. endocrine disrupting properties

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.7. Other adverse effects		
Other adverse effects	: Avoid release to the environment.	
SECTION 13: Disposal consi	lerations	

Regional legislation (waste)	:	Comply with local regulations for disposal.
Additional information	:	Can be slippery on hard, smooth walking area.
European List of Waste (LoW) code	:	16 01 14* - antifreeze fluids containing dangerous substances

SECTION 14: Transport information		
In accordance with ADR / IMDG		
14.1. UN number or ID number		
UN-No. UN-No. (IMDG)	: Not regulated : Not regulated	
14.2. UN proper shipping name		
Proper Shipping Name (ADR) Proper Shipping Name (IMDG)	: Not regulated : Not regulated	
14.3. Transport hazard class(es)		
ADR Transport hazard class(es) (ADR)	: Not regulated	
IMDG Transport hazard class(es) (IMDG)	: Not regulated	
14.4. Packing group		
Packing group (ADR) Packing group (IMDG)	: Not regulated : Not regulated	
14.5. Environmental hazards		
Dangerous for the environment Marine pollutant Other information	 No No No supplementary information available 	
14.6. Special precautions for user		
Overland transport		

Not regulated

Transport by sea Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions) Contains no substance(s) listed on the REACH Candidate List

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Contains no substance(s) listed on REACH Annex XIV (Authorisation List) Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals) Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

15.1.2. National regulations

No additional information available.

15.2. Chemical safety assessment

No additional information available.

SECTION 16: Other information

Full text of H- and EUH-statements		
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
H302	Harmful if swallowed.	
H315	Causes skin irritation.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H361d	Suspected of damaging the unborn child	
H373	May cause damage to organs through prolonged or repeated exposure.	
Repr. 2	Reproductive toxicity, Category 2	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2	

SDS MPM REACH

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.