



Coolant -38C

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 04/11/2014 Revision date: 09/10/2018 Supersedes version of: 14/09/2015 Version: 1.2

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

1.1. Product identifier

Product form : Mixture
Product name : Coolant -38C
UFI : 2AR5-CU7N-0K04-MDU3
Product code : 830
Article number : 83000

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

1.2.1. Relevant identified uses

Function or use category : Antifreeze/Coolant

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BARDAHL NL - OCD NEDERLAND BV
Maxwellstraat 41
3316 GP Dordrecht
Nederland
T 0031 78 651 2322 - F 0031 78 617 4848
mjkooijman@bardahl.nl - www.bardahl.nl

1.4. Emergency telephone number

Emergency number : +31 (0) 6 54924171
During office hours: 8.30 t/m 17:00 h

Country	Official advisory body	Address	Emergency number	Comment
	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

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

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

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2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

GHS08

Signal word (CLP) :

Warning

Contains :

Sodium 2-ethylhexanoate

Hazard statements (CLP) :

H302 - Harmful if swallowed.

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

Precautionary statements (CLP) :

P501 - Dispose of contents/container to a facility for the collection of hazardous or special waste.

P330 - Rinse mouth.

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

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

P264 - Wash hands, forearms and face thoroughly after handling.

P260 - Do not breathe vapours, spray, mist, gas, fume, dust.

2.3. Other hazards

Other hazards which do not result in classification : No physical or chemical hazard. A dangerous for the health concentration in the air will not be reached or only very slowly; However, by atomizing much faster. The product can act on the central nervous system. Vapours mix easily with air.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
1,2-ethanediol (107-21-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Sodium 2-ethylhexanoate (19766-89-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, 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	25 – 50	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sodium 2-ethylhexanoate	CAS-No.: 19766-89-3 EC-No.: 243-283-8 EC Index-No.: 01-2119979083-31	< 3	Repr. 2, H361d

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. Consult a doctor/medical service.
First-aid measures after inhalation	: Allow affected person to breathe fresh air. Keep victim at rest in half upright position. If breathing is irregular or stopped, administer artificial respiration.
First-aid measures after skin contact	: Remove contaminated clothing immediately. Wash skin thoroughly with mild soap and water. Get medical advice/attention.
First-aid measures after 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. Contact ophthalmologist immediately.
First-aid measures after ingestion	: Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

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

Call a poison control centre or doctor immediately for treatment advice.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Powder. Alcohol resistant foam. Carbon dioxide. Water.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Carbon oxydes (CO, CO₂). Smoke.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Wear suitable respiratory equipment. Wear suitable protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Ventilate area.

6.1.2. For emergency responders

Protective equipment : Do not breathe gas/fumes/vapour/spray. Avoid contact with skin and eyes. Wear proper protective equipment.

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6.2. Environmental precautions

Clean up even minor leaks or spills, if possible, without unnecessary risk. Not in groundwater, surfacewater or sewerage. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Place spillage in an appropriate labeled container for disposal.
Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Flush with plenty of water.

6.4. Reference to other sections

See Section 8. See Heading 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe gas, fumes, vapour or spray. Avoid contact with skin and eyes. Wear suitable protective clothing. Do not eat, drink or smoke when using this product. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, cool, well-ventilated area.
Incompatible products : Oxidizer. acids.
Incompatible materials : Sources of ignition. sparks. Open flame.
Packaging materials : polypropylene. stainless steel. Polyethylene. Unsuitable packaging: Rubber, Aluminum.

7.3. Specific end use(s)

See Section 1.2 and / or exposure scenarios.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

1,2-ethanediol (107-21-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylene glycol
IOEL TWA	52 mg/m ³
IOEL TWA [ppm]	20 ppm
IOEL STEL	104 mg/m ³
IOEL STEL [ppm]	40 ppm
Remark	Skin

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

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8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product.

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Wear suitable gloves tested to EN374

8.2.2.3. Respiratory protection

Respiratory protection:

High gas/vapour concentration: gas mask with filter type A

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

See sections 6, 7, 12 and 13.

Other information:

Good ventilation of the workplace required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: P4
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 100 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available

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Vapour pressure at 50°C	: Not available
Density	: 1.03 – 1.04 kg/l
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: 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

VOC content : 25 – 50 %

SECTION 10: Stability and reactivity

10.1. Reactivity

With (strong) oxidizers. Acids.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Acids. Danger of explosion.

10.4. Conditions to avoid

Heat. Direct sunlight. Moisture.

10.5. Incompatible materials

Oxidizer. Acids. Rubber. Aluminium.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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ATE CLP (oral)	500 mg/kg bodyweight
1,2-ethanediol (107-21-1)	
LD50 oral rat	7712 mg/kg
LD50 dermal rabbit	9530 mg/kg
LC50 Inhalation - Rat	> 2.5 mg/l
Sodium 2-ethylhexanoate (19766-89-3)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	0.11 mg/l

Skin corrosion/irritation : Effects of skin contact may include : redness. Pain. Eczema.

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Serious eye damage/irritation	: Slight eye irritant.
Respiratory or skin sensitisation	: Sore throat. Coughing. May cause drowsiness or dizziness. Loss of co-ordination. Nausea. Excessive concentrations may lead to unconsciousness. No sensitisation responses were observed
Additional information	: Harmful : may cause lung damage if swallowed.
Germ cell mutagenicity	: Not mutagenetic.
Carcinogenicity	: non carcinogen.

1,2-ethanediol (107-21-1)

NOAEL (chronic, oral, animal/male, 2 years)	1000 mg/kg bodyweight
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NOAEL (chronic, oral, animal/female, 2 years)	1000 mg/kg bodyweight
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Reproductive toxicity	: Not classified
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STOT-single exposure	: Not classified
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1,2-ethanediol (107-21-1)

NOAEL (oral, rat)	200 mg/kg bodyweight
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NOAEL (acute, oral, animal/female)	1000 mg/kg bodyweight
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STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
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1,2-ethanediol (107-21-1)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard	: Not classified
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
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Hazardous to the aquatic environment, long-term (chronic)	: Not classified
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1,2-ethanediol (107-21-1)

LC50 - Fish [1]	72860 mg/l
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EC50 - Crustacea [1]	> 100 mg/l (24h)
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EC50 - Other aquatic organisms [1]	6500 – 13000 mg/l (Algen)
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NOEC chronic fish	15380 mg/l
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NOEC chronic algae	8590 mg/l
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Sodium 2-ethylhexanoate (19766-89-3)

LC50 - Fish [1]	> 100 mg/l
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12.2. Persistence and degradability

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

Persistence and degradability	Readily biodegradable.
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Biodegradation	90 % (OECD 301D method)
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Sodium 2-ethylhexanoate (19766-89-3)

Persistence and degradability	Readily biodegradable.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No.
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1,2-ethanediol (107-21-1)

Partition coefficient n-octanol/water (Log Kow)	-1.36
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Bioaccumulative potential	Low.
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12.4. Mobility in soil

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Ecology - soil	Solubility in water.
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1,2-ethanediol (107-21-1)

Ecology - soil	High. Mobility in soil.
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Sodium 2-ethylhexanoate (19766-89-3)

Ecology - soil	Material highly soluble in water.
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12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component

1,2-ethanediol (107-21-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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Sodium 2-ethylhexanoate (19766-89-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Packaging that cannot be reused after cleaning must be disposed of or recycled in accordance with federal, national and local regulations.

SECTION 14: Transport information

In accordance with / / / ADR / IMDG / IATA / ADN / RID

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ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

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

REACH Annex XVII (Restriction List)

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

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

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POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

VOC Directive (2004/42)

VOC content : 25 – 50 %

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

Yes

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
1.2	Function or use category	Added	
2.2	Precautionary statements (CLP)	Modified	
15.2	Chemical safety assessment	Modified	

Abbreviations and acronyms:

	Abbreviations and acronyms: RID: Regulations Concerning the International Transport of Dangerous Goods by Rail ICAO: International Civil Aviation Organization ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent
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Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
H302	Harmful if swallowed.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
Repr. 2	Reproductive toxicity, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

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Safety Data Sheet (SDS), EU

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.