



Coolant G13

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 13/01/2017 Revision date: 13/01/2017 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : Coolant G13
UFI : NU7F-Y77Y-C00J-XNN2
Product code : 835
Article number : 83500

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Professional use.
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]

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)



GHS08

Signal word (CLP)

: Warning

Contains

: 1,2-ethanediol; Sodium 2-ethylhexanoate

Hazard statements (CLP)

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

Precautionary statements (CLP)

: P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

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

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local regulations.

2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

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
Sodium 2-ethylhexanoate	CAS-No.: 19766-89-3 EC-No.: 243-283-8 EC Index-No.: 01-2119979083-31	1 – 2.5	Repr. 2, H361d

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: In any case of doubt or if symptoms can be observed, get medical attention. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Allow affected person to breathe fresh air. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Wash skin thoroughly with mild soap and water. If skin irritation occurs: Get medical advice/attention. Remove contaminated clothing immediately.
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. Seek medical advice.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately. Drink plenty of water.

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

Symptoms/effects after inhalation	: Headache. GCM – Vietnam sequence. Vomiting. Drowsiness. High concentrations may cause injuries to gastrointestinal tract, liver, kidneys and central nervous system. In high concentrations : Unconsciousness. Tremor. Coma. Death.
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4.3. Indication of any immediate medical attention and special treatment needed

Call a POISON CENTER/doctor.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Powder. Alcohol resistant foam. Water haze.
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	: At high temperature may liberate toxic gases.
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5.3. Advice for firefighters

Firefighting instructions	: Prevent fire fighting water from entering the environment.
Protection during firefighting	: Use self-contained breathing apparatus. Wear suitable protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Wear proper protective equipment. See Heading 8.
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6.1.1. For non-emergency personnel

Emergency procedures	: Keep public away from danger area. Ventilate area.
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6.1.2. For emergency responders

Protective equipment	: Wear proper protective equipment.
Emergency procedures	: Eliminate ignition sources.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel).
Other information	: Stop leak without risks if possible.

6.4. Reference to other sections

See Headings 7 and 8. See Heading 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Ensure adequate ventilation. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in original container. Store in a dry, cool and well-ventilated place. Keep container tightly closed.

Incompatible materials : heat. Direct sunlight.

7.3. Specific end use(s)

No additional information available

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

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:

Protective goggles. Combined gas/dust mask with filter type A/P2.

Personal protective equipment symbol(s):



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8.2.2.1. Eye and face protection

Eye protection:

Use eye protection according to EN 166, designed to protect against liquid splashes.

Eye protection			
Type	Field of application	Characteristics	Standard
			EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. EN ISO 13688

Skin and body protection	
Type	Standard
	EN 13034

Hand protection:

Wear suitable gloves resistant to chemical penetration. Selection of the glove material on consideration of the penetration times, permeatiegraden and degradation. Refer to manufacturer's information.

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Butyl rubber	6 (> 480 minutes)	> 0.7		EN ISO 374
	Nitrile rubber (NBR)	6 (> 480 minutes)	> 0.4		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Extra personal protection: A/P2 filter respirator for organic vapour and harmful dust

Respiratory protection			
Device	Filter type	Condition	Standard
	Type A/P2		

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

The usual precautionary measures are to be adhered to when handling chemicals. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Do not breathe gas, fumes, vapour or spray. Avoid contact with skin and eyes. Ventilate area.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Violet.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: -18 °C
Freezing point	: Not available

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Boiling point	: 180 °C
Flammability	: Not available
Explosive properties	: Product is not explosive.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 120 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 8.5
Viscosity, kinematic	: Not available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 1.1
Relative vapour density at 20°C	: 1.1
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

Additional information : Material is hygroscopic

SECTION 10: Stability and reactivity

10.1. Reactivity

May react with: Strong acids. Chlorates. Nitrates. Peroxides.

10.2. Chemical stability

No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

Heat. Sparks. Open flame. Strong oxidizers.

10.5. Incompatible materials

Oxidizer.

10.6. Hazardous decomposition products

Aldehyde, ketones.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

1,2-ethanediol (107-21-1)	
LD50 oral rat	7712 mg/kg
LD50 dermal rabbit	9530 mg/kg

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1,2-ethanediol (107-21-1)	
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	: Based on available data, the classification criteria are not met pH: 8.5
Serious eye damage/irritation	: Based on available data, the classification criteria are not met pH: 8.5
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Based on available data, the classification criteria are not met
Carcinogenicity	: Based on available data, the classification criteria are not met

1,2-ethanediol (107-21-1)	
NOAEL (chronic, oral, animal/male, 2 years)	1000 mg/kg bodyweight
NOAEL (chronic, oral, animal/female, 2 years)	1000 mg/kg bodyweight
Reproductive toxicity	: Based on available data, the classification criteria are not met
STOT-single exposure	: Based on available data, the classification criteria are not met

1,2-ethanediol (107-21-1)	
NOAEL (oral, rat)	200 mg/kg bodyweight
NOAEL (acute, oral, animal/female)	1000 mg/kg bodyweight
STOT-repeated exposure	: Based on available data, the classification criteria are not met

1,2-ethanediol (107-21-1)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Based on available data, the classification criteria are not met

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
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

1,2-ethanediol (107-21-1)	
LC50 - Fish [1]	72860 mg/l
EC50 - Crustacea [1]	> 100 mg/l (24h)
EC50 - Other aquatic organisms [1]	6500 – 13000 mg/l (Algen)
NOEC chronic fish	15380 mg/l
NOEC chronic algae	8590 mg/l

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	Readily biodegradable.
Biodegradation	76 % (28d)

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

Persistence and degradability	Readily biodegradable.
Biodegradation	90 % (OECD 301D method)

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
Bioaccumulative potential	Low.

12.4. Mobility in soil

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Ecology - soil	Prevent entry to sewers and public waters.
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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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PBT: not relevant – no registration required

vPvB: not relevant – no registration required

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

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
European List of Waste (LoW) code : 16 01 14* - antifreeze fluids containing dangerous substances

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
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				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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)

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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)

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)

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

No

SECTION 16: Other information

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

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

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.