



Antifreeze Longlife G12 Red

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 13/04/2023 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : Antifreeze Longlife G12 Red
UFI : 5MS4-KPHE-4X98-MPFM
Product code : 832
Article number : 83200

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 : Anti-freezing agents

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
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

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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

: 1,2-ethanediol; 2,2'-oxybisethanol; diethylene glycol

Hazard statements (CLP)

: H302 - Harmful if swallowed.

H319 - Causes serious eye irritation.

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

Precautionary statements (CLP)

: P264 - Wash hands thoroughly after handling.

P280 - Wear eye protection/face protection.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P312 - Call a POISON CENTER or doctor/physician if you feel unwell.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P501 - Dispose of contents and container to a hazardous or special waste collection point.

Extra phrases

: Contains: Bitter liquid.

Restricted to professional users.

2.3. Other hazards

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

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	80 – 100	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
2,2'-oxybisethanol; diethylene glycol	CAS-No.: 111-46-6 EC-No.: 203-872-2 EC Index-No.: 603-140-00-6 REACH-no: 01-2119457857-21	10 – 20	Acute Tox. 4 (Oral), H302

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium 2-ethylhexanoate	CAS-No.: 3164-85-0	< 3	Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361fd

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. If medical advice is needed, have product container or label at hand.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects	: May cause damage to organs (kidneys) through prolonged or repeated exposure.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.

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

Antidote : Ethanol.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Dry powder. Water haze. Foam.
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	: Incomplete combustion will generate poisonous carbon monoxide, carbon dioxide and other toxic gases.
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5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Prevent liquid from entering sewers, watercourses, underground or low areas.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Evacuate area. Eliminate every possible source of ignition. Ensure adequate ventilation, especially in confined areas.
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6.1.1. For non-emergency personnel

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

Protective equipment	: Equip cleanup crew with proper protection.
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6.2. Environmental precautions

Dam up the liquid spill. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Recover the product with absorbent material.
Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not eat, drink or smoke when using this product.
Hygiene measures : Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation.
Storage conditions : Store in a closed container.
Incompatible materials : Freezing. heat. Sources of ignition. Open flame.
Information on mixed storage : Keep away from food, drink and animal feeding stuffs.
Storage area : Store in a dry place. Store in a well-ventilated place.
Special rules on packaging : Keep only in original container.

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

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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:

Gloves. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection			
Type	Field of application	Characteristics	Standard
Safety goggles		Face shield	EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing.

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Safety gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.3		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

Ensure good ventilation of the work station. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: pink.
Appearance	: clear.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available

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Decomposition temperature	: Not available
pH	: 7.5 – 9
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1.11 – 1.13 g/cm ³ 20°C
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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Open flame. Sparks. Heat. Water, humidity. Freezing.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

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

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2,2' -oxybisethanol; diethylene glycol (111-46-6)

LD50 oral rat	> 10000 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
LC50 Inhalation - Rat	> 4.6 mg/l/4h

Potassium 2-ethylhexanoate (3164-85-0)

LD50 oral rat	2043 mg/kg Source: ECHA
LD50 dermal rat	> 2000 mg/kg Source: ECHA

Skin corrosion/irritation	: Not classified pH: 7.5 – 9
Serious eye damage/irritation	: Causes serious eye irritation. pH: 7.5 – 9
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

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

2,2' -oxybisethanol; diethylene glycol (111-46-6)

NOAEL (chronic, oral, animal/male, 2 years)	100 mg/kg bodyweight (Rat)
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Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

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	: May cause damage to organs through prolonged or repeated exposure (oral).
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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

Ecology - general	: Harmful to aquatic life with long lasting effects.
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

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

NOEC chronic algae	8590 mg/l
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2,2' -oxybisethanol; diethylene glycol (111-46-6)

LC50 - Fish [1]	75200 mg/l (Pimephales promelas)
EC50 - Crustacea [1]	> 10000 mg/l (DIN 38412/11) 24h

Potassium 2-ethylhexanoate (3164-85-0)

LC50 - Fish [1]	> 100 mg/l Source: ECHA
EC50 - Crustacea [1]	910 mg/l Source: ECHA
EC50 72h - Algae [1]	49.3 mg/l Source: ECHA

12.2. Persistence and degradability

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

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

12.3. Bioaccumulative potential

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

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

12.4. Mobility in soil

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

Ecology - soil	High. Mobility in soil.
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12.5. Results of PBT and vPvB assessment

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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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

Waste treatment methods	: Dispose of this material and its container at hazardous or special waste collection point.
Product/Packaging disposal recommendations	: Collect all waste in suitable and labelled containers and dispose according to local legislation.
Additional information	: Empty the packaging completely prior to disposal. Do not re-use empty containers.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: 07 07 01* - aqueous washing liquids and mother liquors 07 06 01* - aqueous washing liquids and mother liquors

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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
Clean up even minor leaks or spills if possible without unnecessary risk				

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

Other information, restriction and prohibition regulations : Detergent Regulation. aliphatic hydrocarbons \geq 30%. aromatic hydrocarbons <5%.

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)

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 additional information available

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Type of product	Added	
	Supersedes	Modified	
	Issue date	Modified	
	Revision date	Modified	
1.1	Other means of identification	Added	
1.1	Name	Added	
2.1	Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]	Added	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Added	
2.2	EUH-statements	Added	
2.2	Precautionary statements (CLP)	Added	
2.2	Hazard pictograms (CLP)	Added	
2.2	Signal word (CLP)	Added	
2.2	Hazard statements (CLP)	Added	
3	Composition/information on ingredients	Modified	
4.2	Symptoms/effects after inhalation	Modified	
4.2	Symptoms/effects after skin contact	Modified	
8.2	Eye protection	Modified	
8.2	Personal protective equipment	Modified	
9.1	Density	Modified	
9.1	Flash point	Modified	
11.1	ATE CLP (dermal)	Added	
11.1	ATE CLP (dust,mist)	Added	

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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
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361fd	Suspected of damaging fertility. 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

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.