

SERVICE BEST B.V. De Schakel 60 5651 GH EINDHOVEN The Netherlands Phone: +31 40 230 23 00 Fax: +31 40 230 23 02 E-mail: <a href="mailto:info@servicebest.com">info@servicebest.com</a>	<b>SAFETY DATA SHEET</b>	Page : 1 / 18
	<b>Protecton Coolant Ready to use G12 G12+ -26</b>  1890929 1L – 1890930 5L	Revision nr : 3.0
		Issue date : 03/11/2023
		Supersedes : 15/09/2021

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

### 1.1. Product identifier

Product form : Mixture  
 Trade name : Protecton Coolant Ready to use G12 G12+ -26  
 Product group : Trade product  
 UFI : DQ10-Q06G-M001-W3VH

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

#### 1.2.1. Relevant identified uses

Intended for general public  
 Main use category : Industrial use, Professional use, Consumer use  
 Use of the substance/mixture : Coolant

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

SERVICE BEST B.V.  
 De Schakel 60  
 5651 GH EINDHOVEN  
 The Netherlands  
 Phone: +31 40 230 23 00  
 Fax: +31 40 230 23 02  
 E-mail: [info@servicebest.com](mailto:info@servicebest.com)

### 1.4. Emergency telephone number

Emergency telephone : BELGIE/BELGIQUE/LUXEMBURG/LUXEMBOURG  
 Centre Anti-Poisons/Antigifcentrum/Giftnotrufzentrale  
 c/o Hôpital Central de la Base - Reine Astrid  
 +32 70 245 245

NETHERLANDS  
 Nationaal Vergiftigingen Informatie Centrum (NVIC)  
 NB Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftigingen  
 +31 30 274 88 88

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Oral) H302  
 Skin Irrit. 2 H315  
 Eye Irrit. 2 H319  
 STOT RE 2 H373

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

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## 2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word :

Warning

Contains :

ethanediol; ethylene glycol; potassium 3,5,5-trimethylhexanoate

Hazard statements (CLP) :

H302 - Harmful if swallowed.  
 H315 - Causes skin irritation.  
 H319 - Causes serious eye irritation.  
 H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).  
 Precautionary statements (CLP) :

P101 - If medical advice is needed, have product container or label at hand.  
 P102 - Keep out of reach of children.  
 P260 - Do not breathe vapours, spray.  
 P264 - Wash hands, forearms and face thoroughly after handling.  
 P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313 - If eye irritation persists: Get medical advice/attention.  
 P501 - Dispose of contents and container to an approved waste disposal plant.

Child-resistant fastening :

Not applicable

Tactile warning :

Applicable

## 2.3. Other hazards

Other hazards :

Results of PBT and vPvB assessment : Contains no PBT/vPvB substances  $\geq$  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

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Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanediol; ethylene glycol substance with a Community workplace exposure limit	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index) 603-027-00-1 (REACH-no) 01-2119456816-28-XXXX	>30 - <38	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
potassium 3,5,5-trimethylhexanoate	(CAS-No.) 93918-10-6 (EC-No.) 299-890-3	0,4 - 1,2	Acute Tox. 4 (Oral), H302 Skin Corr. 1, H314 Eye Dam. 1, H318

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Additional advice	: First aider: Pay attention to self-protection!. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance.
Inhalation	: Remove casualty to fresh air and keep warm and at rest. In case of doubt or persistent symptoms, consult always a physician.
Skin contact	: Remove contaminated clothing and shoes. Gently wash with plenty of soap and water. In case of doubt or persistent symptoms, consult always a physician.
Eyes contact	: Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of doubt or persistent symptoms, consult always a physician.
Ingestion	: Rinse mouth thoroughly with water. Do NOT induce vomiting. Get medical advice/attention.

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

Inhalation	: May cause respiratory irritation. Dizziness. Headache. The following symptoms may occur: Cough.
Skin contact	: Causes skin irritation. May be absorbed through the skin. Repeated exposure may cause skin dryness or cracking.
Eyes contact	: Causes serious eye irritation. The following symptoms may occur: Pain, erythema (redness).
Ingestion	: Harmful if swallowed. The following symptoms may occur: Weakness, Unconsciousness, Abdominal pain, Nausea, Vomiting.
Chronic symptoms	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: carbon dioxide (CO2), powder, alcohol-resistant foam, water spray.
Unsuitable extinguishing media	: Strong water jet.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards	: Not flammable. Heating will cause a rise in pressure with a risk of bursting.
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Hazardous decomposition products in case of fire : Carbon oxides (CO, CO<sub>2</sub>).

### **5.3. Advice for firefighters**

- Firefighting instructions : Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
- Other information : Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **6.1.1. For non-emergency personnel**

For non-emergency personnel : Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing.

#### **6.1.2. For emergency responders**

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

### **6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Stop leak if safe to do so. Dam up the liquid spill. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Recover large spills by pumping (use an explosion proof or hand pump). Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). This material and its container must be disposed of in a safe way, and as per local legislation.

### **6.4. Reference to other sections**

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). After use replace the closing cap immediately. Avoid release to the environment.

Hygiene measures : Keep good industrial hygiene. 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. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse.

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## 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep out of reach of children.
Storage conditions	: Keep container tightly closed. Store in a dry, cool and well-ventilated place. Do not store near or with any of the incompatible materials listed in section 10. Bund storage facilities to prevent soil and water pollution in the event of spillage.
Incompatible materials	: Strong acids and oxidizing agents.
Heat and ignition sources	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Special rules on packaging	: Tactile warning (EN/ISO 11683). Containers which are opened should be properly resealed and kept upright to prevent leakage. Keep in properly labelled containers.
Packaging materials	: Keep only in the original container.

## 7.3. Specific end use(s)

Reference to other sections : 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

ethanediol; ethylene glycol (107-21-1)		
EU	IOEL TWA	52 mg/m <sup>3</sup>
EU	IOEL TWA [ppm]	20 ppm
EU	IOEL STEL	104 mg/m <sup>3</sup>
EU	IOEL STEL [ppm]	40 ppm
EU	Remark	Possibility of significant uptake through the skin
Austria	MAK (OEL TWA)	26 mg/m <sup>3</sup>
Austria	MAK (OEL TWA) [ppm]	10 ppm
Austria	MAK (OEL STEL)	52 mg/m <sup>3</sup>
Austria	MAK (OEL STEL) [ppm]	20 ppm
Belgium	OEL TWA	52 mg/m <sup>3</sup> (aerosol)
Belgium	OEL TWA [ppm]	20 ppm (aerosol)
Belgium	OEL STEL	104 mg/m <sup>3</sup> (aerosol)
Belgium	OEL STEL [ppm]	40 ppm (aerosol)
Bulgaria	OEL TWA	52 mg/m <sup>3</sup>
Bulgaria	OEL TWA [ppm]	20 ppm
Bulgaria	OEL STEL	104 mg/m <sup>3</sup>
Bulgaria	OEL STEL [ppm]	40 ppm
Croatia	GVI (OEL TWA) [1]	52 mg/m <sup>3</sup>
Croatia	GVI (OEL TWA) [2]	20 ppm
Croatia	KGVI (OEL STEL)	104 mg/m <sup>3</sup>
Croatia	KGVI (OEL STEL) [ppm]	40 ppm
Cyprus	OEL TWA	52 mg/m <sup>3</sup>
Cyprus	OEL TWA [ppm]	20 ppm
Cyprus	OEL STEL	104 mg/m <sup>3</sup>
Cyprus	OEL STEL [ppm]	40 ppm
Czech Republic	PEL (OEL TWA)	50 mg/m <sup>3</sup>

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<b>ethanediol; ethylene glycol (107-21-1)</b>		
Denmark	OEL TWA [1]	26 mg/m <sup>3</sup> 10 mg/m <sup>3</sup> (atomized)
Denmark	OEL TWA [2]	10 ppm
Denmark	OEL STEL	104 mg/m <sup>3</sup> 20 mg/m <sup>3</sup> (atomized)
Denmark	OEL STEL [ppm]	40 ppm
Estonia	OEL TWA	52 mg/m <sup>3</sup> (total concentration of aerosol and vapor)
Estonia	OEL TWA [ppm]	20 ppm (total concentration of aerosol and vapor)
Estonia	OEL STEL	104 mg/m <sup>3</sup> (total concentration of aerosol and vapor)
Estonia	OEL STEL [ppm]	40 ppm (total concentration of aerosol and vapor)
Finland	HTP (OEL TWA) [1]	50 mg/m <sup>3</sup>
Finland	HTP (OEL TWA) [2]	20 ppm
Finland	HTP (OEL STEL)	100 mg/m <sup>3</sup>
Finland	HTP (OEL STEL) [ppm]	40 ppm
France	VME (OEL TWA)	52 mg/m <sup>3</sup> (indicative limit-vapor)
France	VME (OEL TWA) [ppm]	20 ppm (indicative limit-vapor)
France	VLE (OEL C/STEL)	104 mg/m <sup>3</sup> (indicative limit-vapor)
France	VLE (OEL C/STEL) [ppm]	40 ppm (indicative limit-vapor)
Germany	Occupational exposure limit value (mg/m <sup>3</sup> ) (TRGS900)	26 mg/m <sup>3</sup> (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	Occupational exposure limit value (ppm) (TRGS900)	10 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Gibraltar	OEL TWA	52 mg/m <sup>3</sup>
Gibraltar	OEL TWA [ppm]	20 ppm
Gibraltar	OEL STEL	104 mg/m <sup>3</sup>
Gibraltar	OEL STEL [ppm]	40 ppm
Greece	OEL TWA	125 mg/m <sup>3</sup> (vapor)
Greece	OEL TWA [ppm]	50 ppm (vapor)
Greece	OEL STEL	125 mg/m <sup>3</sup> (vapor)
Greece	OEL STEL [ppm]	50 ppm (vapor)
Hungary	AK (OEL TWA)	52 mg/m <sup>3</sup>
Hungary	CK (OEL STEL)	104 mg/m <sup>3</sup>
Ireland	OEL TWA [1]	52 mg/m <sup>3</sup>
Ireland	OEL TWA [2]	20 ppm
Ireland	OEL STEL	104 mg/m <sup>3</sup>
Ireland	OEL STEL [ppm]	40 ppm
Italy	OEL TWA	52 mg/m <sup>3</sup>

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<b>ethanediol; ethylene glycol (107-21-1)</b>		
Italy	OEL TWA [ppm]	20 ppm
Italy	OEL STEL	104 mg/m <sup>3</sup>
Italy	OEL STEL [ppm]	40 ppm
Latvia	OEL TWA	52 mg/m <sup>3</sup>
Latvia	OEL TWA [ppm]	20 ppm
Lithuania	IPRV (OEL TWA)	25 mg/m <sup>3</sup> (aerosol and vapor)
Lithuania	IPRV (OEL TWA) [ppm]	10 ppm (aerosol and vapor)
Lithuania	TPRV (OEL STEL)	50 mg/m <sup>3</sup> (aerosol and vapor)
Lithuania	TPRV (OEL STEL) [ppm]	20 ppm (aerosol and vapor)
Luxembourg	OEL TWA	52 mg/m <sup>3</sup>
Luxembourg	OEL TWA [ppm]	20 ppm
Luxembourg	OEL STEL	104 mg/m <sup>3</sup>
Luxembourg	OEL STEL [ppm]	40 ppm
Malta	OEL TWA	52 mg/m <sup>3</sup>
Malta	OEL TWA [ppm]	20 ppm
Malta	OEL STEL	104 mg/m <sup>3</sup>
Malta	OEL STEL [ppm]	40 ppm
Netherlands	TGG-8u (OEL TWA)	52 mg/m <sup>3</sup> (fume) 10 mg/m <sup>3</sup> (droplets)
Netherlands	TGG-15min (OEL STEL)	104 mg/m <sup>3</sup> (fume)
Netherlands	TGG-15min (OEL STEL) [ppm]	40 ppm (fume)
Poland	NDS (OEL TWA)	15 mg/m <sup>3</sup>
Poland	NDSch (OEL STEL)	50 mg/m <sup>3</sup>
Portugal	OEL TWA	52 mg/m <sup>3</sup> (indicative limit value)
Portugal	OEL TWA [ppm]	20 ppm (indicative limit value)
Portugal	OEL STEL	104 mg/m <sup>3</sup> (indicative limit value)
Portugal	OEL STEL [ppm]	40 ppm (indicative limit value)
Portugal	OEL C	100 mg/m <sup>3</sup> (aerosol only)
Romania	OEL TWA	52 mg/m <sup>3</sup>
Romania	OEL TWA [ppm]	20 ppm
Romania	OEL STEL	104 mg/m <sup>3</sup>
Romania	OEL STEL [ppm]	40 ppm
Slovakia	NPHV (OEL TWA) [1]	52 mg/m <sup>3</sup>
Slovakia	NPHV (OEL TWA) [2]	20 ppm
Slovakia	NPHV (OEL C)	104 mg/m <sup>3</sup>
Slovenia	OEL TWA	52 mg/m <sup>3</sup>
Slovenia	OEL TWA [ppm]	20 ppm
Slovenia	OEL STEL	104 mg/m <sup>3</sup>
Slovenia	OEL STEL [ppm]	40 ppm
Spain	VLA-ED (OEL TWA) [1]	52 mg/m <sup>3</sup> (indicative limit value)
Spain	VLA-ED (OEL TWA) [2]	20 ppm (indicative limit value)

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<b>ethanediol; ethylene glycol (107-21-1)</b>		
Spain	VLA-EC (OEL STEL)	104 mg/m <sup>3</sup>
Spain	VLA-EC (OEL STEL) [ppm]	40 ppm
Sweden	NGV (OEL TWA)	25 mg/m <sup>3</sup> (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	NGV (OEL TWA) [ppm]	10 ppm (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	KTV (OEL STEL)	104 mg/m <sup>3</sup> (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	KTV (OEL STEL) [ppm]	40 ppm (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup> (particulates) 52 mg/m <sup>3</sup> (vapour)
United Kingdom	WEL TWA (OEL TWA) [2]	20 ppm (vapour)
United Kingdom	WEL STEL (OEL STEL)	104 mg/m <sup>3</sup> (vapour) 30 mg/m <sup>3</sup> (calculated-particulate)
United Kingdom	WEL STEL (OEL STEL) [ppm]	40 ppm (vapour)
Norway	Grenseverdi (OEL TWA) [1]	52 mg/m <sup>3</sup> (total sum of gas and particulate matter (aerosol) of the substance)
Norway	Grenseverdi (OEL TWA) [2]	20 ppm (total sum of gas and particulate matter (aerosol) of the substance)
Norway	Korttidsverdi (OEL STEL)	104 mg/m <sup>3</sup> (total sum of gas and particulate matter (aerosol) of the substance)
Norway	Korttidsverdi (OEL STEL) [ppm]	40 ppm (total sum of gas and particulate matter (aerosol) of the substance)
Switzerland	MAK (OEL TWA) [1]	26 mg/m <sup>3</sup> (aerosol, vapour)
Switzerland	MAK (OEL TWA) [2]	10 ppm (aerosol, vapour)
Switzerland	KZGW (OEL STEL)	52 mg/m <sup>3</sup> (aerosol, vapour)
Switzerland	KZGW (OEL STEL) [ppm]	20 ppm (aerosol, vapour)
Australia	OES TWA [1]	10 mg/m <sup>3</sup> (particulate) 52 mg/m <sup>3</sup> (vapour)
Australia	OES TWA [2]	20 ppm (vapour)
Australia	OES STEL	104 mg/m <sup>3</sup> (vapour)
Australia	OES STEL [ppm]	40 ppm (vapour)
Canada (Quebec)	Plafond (OEL C)	127 mg/m <sup>3</sup> (mist and vapour)
Canada (Quebec)	Plafond (OEL C) [ppm]	50 ppm (mist and vapour)
USA - ACGIH	ACGIH OEL TWA [ppm]	25 ppm (vapor fraction)
USA - ACGIH	ACGIH OEL STEL	10 mg/m <sup>3</sup> (inhalable particulate matter, aerosol only)
USA - ACGIH	ACGIH OEL STEL [ppm]	50 ppm (vapor fraction)

Additional information

: Recommended monitoring procedures :. Personal air monitoring. Room air monitoring

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## 8.2. Exposure controls

Engineering measure(s)	: Provide adequate ventilation. Organisational measures to prevent/limit releases, dispersion and exposure : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. See Section 7 for information on safe handling.
Personal protective equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hand protection	: Wear chemically resistant gloves (tested to EN374) . Suitable material: Nitrile rubber. Breakthrough time : > 8 hours. Thickness : 0,3 mm. Suitable material: neoprene gloves. Breakthrough time : > 8 hours. Thickness : 0,3 mm. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Eye protection	: Use suitable eye protection (EN166): tightly fitting safety goggles. During splash contact: face shield
Body protection	: Wear suitable protective clothing. Wear suitable coveralls to prevent exposure to the skin. Chemical resistant safety shoes
Respiratory protection	: Not required for normal conditions of use. In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (DIN EN 140). full face mask (DIN EN 136). Filter type: ABEK (EN 14387). The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)
Thermal hazard protection	: Not required for normal conditions of use. Use dedicated equipment.
Environmental exposure controls	: Avoid release to the environment. Comply with applicable Community environmental protection legislation.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: red.
Odour	: Mild odour.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting / freezing point	: -26 °C
Freezing point	: No data available
Initial boiling point and boiling range	: ≈ 106 °C
Flash point	: ≈ 150 °C
Auto-ignition temperature	: ≈ 410 °C
Decomposition temperature	: No data available
Flammability	: Not flammable
Vapour pressure	: No data available
Vapour density	: No data available

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Relative density	: ≈ 1,06 (20°C)
Solubility	: Miscible with water.
Partition coefficient n-octanol/water	: No data available
Kinematic viscosity	: No data available
Dynamic viscosity	: 3 mPa·s
Explosive properties	: Not applicable. The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	: Not applicable. The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.
Explosive limits	: No data available
Particle size	: Not applicable
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**

Hygroscopic product. Reference to other sections: 10.4 & 10.5.

### **10.2. Chemical stability**

Stable under normal conditions.

### **10.3. Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use.

### **10.4. Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. See also section 7. Handling and storage. See Section 7 for information on safe handling.

### **10.5. Incompatible materials**

Strong acids and oxidizing agents. See Section 7 for information on safe handling.

### **10.6. Hazardous decomposition products**

Burning produces noxious and toxic fumes. Carbon oxides (CO, CO<sub>2</sub>). Reference to other sections 5.2.

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## SECTION 11: Toxicological information

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

Acute toxicity : Harmful if swallowed.

<b>ethanediol; ethylene glycol (107-21-1)</b>	
LD50/oral/rat	7712 mg/kg bodyweight
LD50 oral	7712 mg/kg
LD50/dermal/rat	10600 mg/kg
LD50/dermal/rabbit	> 3500 mg/kg
LD50 dermal	10600 mg/kg
LC50/inhalation/4h/rat	> 2,5 mg/l (Exposure time: 6 h)

Skin corrosion/irritation : Causes skin irritation.

pH: No data available

Serious eye damage/irritation : Causes serious eye irritation.

pH: No data available

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : 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)

<b>ethanediol; ethylene glycol (107-21-1)</b>	
NOAEL (chronic, oral, animal/male, 2 years)	1000 mg/kg bodyweight
NOAEL (chronic, oral, animal/female, 2 years)	1500 mg/kg bodyweight

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)

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

<b>ethanediol; ethylene glycol (107-21-1)</b>	
NOAEL (oral, rat, 90 days)	200 mg/kg bodyweight/day OECD Guideline 407
NOAEL (dermal, rat/rabbit, 90 days)	2220 mg/kg bodyweight/day OECD 410

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

<b>Protecton Coolant Ready to use G12 G12+ -26</b>	
Kinematic viscosity	No data available

Other information : Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.

### 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 %

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### 11.2.2 Other information

Other information : Symptoms related to the physical, chemical and toxicological characteristics, For further information see section 4

## SECTION 12: Ecological information

### 12.1. Toxicity

Environmental properties : According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

Hazardous to the aquatic environment, short-term (acute) : Not classified

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

<b>ethanediol; ethylene glycol (107-21-1)</b>	
LC50 - Fish [1]	41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
LC50 - Fish [2]	14 – 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 96h - Algae [1]	6500 – 13000 mg/l (Species: Pseudokirchneriella subcapitata)
NOEC (chronic)	15380 mg/l (7d, Pimephales promelas)

### 12.2. Persistence and degradability

<b>Protecton Coolant Ready to use G12 G12+ -26</b>	
Persistence and degradability	No additional information available.
<b>ethanediol; ethylene glycol (107-21-1)</b>	
Persistence and degradability	Readily biodegradable.
Biodegradation	90-100 Experimental data

### 12.3. Bioaccumulative potential

<b>Protecton Coolant Ready to use G12 G12+ -26</b>	
Partition coefficient n-octanol/water	No data available
Bioaccumulative potential	No additional information available.
<b>ethanediol; ethylene glycol (107-21-1)</b>	
Partition coefficient n-octanol/water	-1,36
Bioaccumulative potential	Does not bioaccumulate.
<b>potassium 3,5,5-trimethylhexanoate (93918-10-6)</b>	
Partition coefficient n-octanol/water	-0,47 (at 25 °C)

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#### 12.4. Mobility in soil

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Mobility in soil	No data available
Ecology - soil	Adsorbs on soil.

ethanediol; ethylene glycol (107-21-1)	
Mobility in soil	Not expected to adsorb on soil.

#### 12.5. Results of PBT and vPvB assessment

Protecton Coolant Ready to use G12 G12+ -26	
Results of PBT assessment	Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

#### 12.6. Endocrine disrupting properties

Adverse effects on the environment 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 %

#### 12.7. Other adverse effects

Other adverse effects : No data available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Avoid release to the environment. Dispose of empty containers and wastes safely. See Section 7 for information on safe handling. Refer to manufacturer/supplier for information on recovery/recycling. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities

### SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	ADN	RID
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable				

#### **14.6. Special precautions for user**

Special precautions for user : Not applicable

#### **- 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**

Code: IBC : 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**

Listed on REACH Annex XVII (Restriction Conditions). The following restrictions are applicable:

3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Protecton Coolant Ready to use G12 G12+ -26 ; ethanediol; ethylene glycol
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Contains no substance(s) listed on the REACH Candidate List

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

##### **15.1.2. National regulations**

###### **France**

No ICPE	Installations classées Désignation de la rubrique	Code Régime	Rayon
na	Not Applicable	na	na

###### **Germany**

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Regulatory reference : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

German storage class (LGK) : LGK 12 - Non-combustible liquids

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

Waterbezwaarlijkheid : B (5) - Weinig schadelijk voor in het water levende organismen

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

#### Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

#### 15.2. Chemical safety assessment

Not applicable

### SECTION 16: Other information

Indication of changes:

1.2	Main use category	Added	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.1	Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]	Removed	
2.2	Hazard statements (CLP)	Modified	
2.2	Precautionary statements (CLP)	Modified	
2.3	ED text	Added	
3	Composition/information on ingredients	Modified	
4.2	Chronic symptoms	Added	
7.2	Special rules on packaging	Added	
7.2	Technical measures	Added	

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8.2	Hand protection	Modified	
8.2	Eye protection	Modified	
9.1	Odour	Modified	
9.2	Information with regard to physical hazard classes	Added	
9.2	Other safety characteristics	Added	
11.1	Information on toxicological effects	Modified	
11.2.	Adverse health effects caused by endocrine disrupting properties	Added	
12.1	Toxicity	Modified	
12.5	Results of PBT assessment	Modified	
12.6	Adverse effects on the environment caused by endocrine disrupting properties	Added	
13.1	European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC)	Modified	
14.7	Maritime transport in bulk according to IMO instruments	Modified	
15.1	Installations classées	Added	
15.1	German storage class (LGK)	Added	
15.1	Waterbezwaarlijkheid	Added	
15.2	Chemical safety assessment	Modified	
16	Training advice	Added	

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
CSR = CSR = Chemical Safety Report
DNEL = DNEL = Derived No Effect Level
LD50 = Median lethal dose
N.O.S. = Not Otherwise Specified
PNEC = Predicted No Effect Concentration
TWA = time weighted average
STEL = Short term exposure limit
TLV = Threshold limits
WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)
NA = Not applicable
ABM = Algemene beoordelingsmethodiek
BTT = Breakthrough time (maximum wearing time)
DMEL = Derived Minimal Effect level

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	EC50 = Median Effective Concentration
	EL50 = Median effective level
	ErC50 = EC50 in terms of reduction of growth rate
	ErL50 = EL50 in terms of reduction of growth rate
	EWC = European waste catalogue
	LC50 = Median lethal concentration
	LL50 = Median lethal level
	NOEC = No observed effect concentration
	NOEL: no-observed-effect level
	NOELR = No observed effect loading rate
	NOAEC = No observed adverse effect concentration
	NOAEL = No observed adverse effect level
	OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
	Quantitative structure-activity relationship (QSAR)
	STOT = Specific Target Organ Toxicity
	VOC = Volatile organic compounds

Sources of key data used to compile the : ECHA (European Chemicals Agency). LOLI. Supplier information. datasheet

Training advice : Training staff on good practice. Manipulations are to be done only by qualified and authorised persons.

Other information : Physicochemical hazard assessment: Information given is based on tests on the mixture itself. Classification - Assessment method: CLP Calculation method (Article 9).

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.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878  
 Classification according to Regulation (EC) No. 1272/2008 [CLP]  
 Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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