

## Radiatorfreeze Protection red G12

Revision date: 29.10.2015

Product code: 1568

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

#### 1.1. Product identifier

Radiatorfreeze Protection red G12

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

##### Use of the substance/mixture

Anti-freezing agent

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

Company name:	CTP GmbH	
Street:	Saalfelder Strasse 35h	
Place:	D-07338 Leutenberg	
Telephone:	+49 (0)36734 230-0	Telefax: +49 (0)36734 230-22
e-mail:	msds@bluechemgroup.com	
Contact person:	Jens Moeller, Dipl.-Chem.	Telephone: +49 (0)36734 230-19
Internet:	www.bluechemgroup.com	

#### 1.4. Emergency telephone number:

For Germany: +49-361-730730 (24 hours/7 days)

#### Further Information

Article Number: 32040, 32041, 32042, 32044, 32045, 32046

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Reproductive toxicity: Repr. 2

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Harmful if swallowed.

Suspected of damaging the unborn child.

May cause damage to organs through prolonged or repeated exposure.

#### 2.2. Label elements

##### Regulation (EC) No. 1272/2008

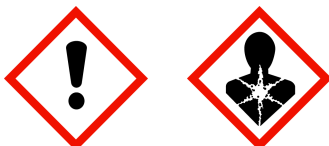
##### Hazard components for labelling

ethanediol, ethylene glycol

2-ethylhexanoic acid

Signal word: Warning

##### Pictograms:



##### Hazard statements

H302 Harmful if swallowed.

H361d Suspected of damaging the unborn child.

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

##### Precautionary statements

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

P102 Keep out of reach of children.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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P264 Wash hands thoroughly after handling.  
P281 Use personal protective equipment as required.  
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P405 Store locked up.  
P501 Dispose of this material and its container to hazardous or special waste collection point.

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Anti-freezing agent  
corrosion preventing agent  
Inhibitor(s).

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
107-21-1	ethanediol, ethylene glycol			85 - 99 %
	203-473-3		01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			
149-57-5	2-ethylhexanoic acid			1 - 5 %
	205-743-6	607-230-00-6		
	Repr. 2; H361d ***			
1310-58-3	caustic potash, potassium hydroxide			0,1 - 1 %
	215-181-3	019-002-00-8		
	Acute Tox. 4, Skin Corr. 1A; H302 H314			

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Remove affected person from the danger area and lay down.  
Remove contaminated, saturated clothing immediately.

#### After inhalation

Move victim to fresh air. Put victim at rest and keep warm.  
In case of breathing difficulties administer oxygen. Consult physician.

#### After contact with skin

After contact with skin, wash immediately with: Water and soap.

#### After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

#### After ingestion

Rinse mouth immediately and drink plenty of water.  
Give activated carbon, in order to reduce the resorption in the gastro-enteric tract.  
Do NOT induce vomiting. Consult physician.

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

No information available.

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

Symptoms: Dizziness. Nausea. unconsciousness.

Nature of Hazard: Heart circulatory collapse.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**Water spray. alcohol resistant foam. Dry extinguishing powder. Carbon dioxide (CO<sub>2</sub>).**Unsuitable extinguishing media**

High power water jet.

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

No information available.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Contaminated fire-fighting water must be collected separately.

Contaminated fire-fighting water must not get into the sewerage network.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment.

Provide adequate ventilation.

Remove all sources of ignition.

Avoid contact with skin and eyes.

Do not breathe gas/fumes/vapour/spray.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Provide adequate ventilation.

**6.4. Reference to other sections**

High skid risk because of leaking or spilled product.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Keep container tightly closed in a cool, well-ventilated place.

**Advice on protection against fire and explosion**

Keep away from sources of ignition. - No smoking.

Concentrated vapors are heavier than air. Vapours may form explosive mixtures with air.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep in a cool, well-ventilated place.

**Advice on storage compatibility**

Should be stored separately from oxidizing agents.

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### Further information on storage conditions

Hygroscopic product.

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	
		40	104		STEL (15 min)	
149-57-5	Ethyl hexanoic acid	-	4		TWA (8 h)	
		-	-		STEL (15 min)	
1310-58-3	Potassium hydroxide	-	-		TWA (8 h)	
		-	2		STEL (15 min)	

### 8.2. Exposure controls

#### Protective and hygiene measures

Take off immediately all contaminated clothing  
Do not breathe gas/fumes/vapour/spray.  
Avoid contact with skin and eyes.  
When using do not eat, drink or smoke.  
Wash hands before breaks and after work.

#### Eye/face protection

Tightly sealed safety glasses.

#### Hand protection

Tested protective gloves are to be worn:  
CR (polychloroprenes, Chloroprene rubber). Butyl rubber.  
Material thickness: 0,5 mm  
penetration time: >= 8 h

NBR (Nitrile rubber).

Material thickness: 0,35 mm  
penetration time: >= 8 h

#### Skin protection

Wear suitable solvent-proof protective clothing according to EN 465.

#### Respiratory protection

Provide for good ventilation, when develop aerosols/mist.  
In case of insufficient ventilation, wear suitable respiratory equipment.

## SECTION 9: Physical and chemical properties

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

Physical state: liquid  
Colour: colored/red  
Odour: characteristic

Test method

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pH-Value (at 20 °C): 7,5 - 8,5

**Changes in the physical state**

Melting point: -12 °C

Initial boiling point and boiling range: 197 °C

Flash point: 111 °C

Lower explosion limits: 3,2 vol. %

Upper explosion limits: 53 vol. %

Ignition temperature: 400 °C

Vapour pressure:  
(at 20 °C) 0,5 hPaDensity (at 20 °C): 1,10 g/cm<sup>3</sup>Water solubility:  
(at 20 °C) easily soluble.**9.2. Other information**

No data

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No information available.

**10.2. Chemical stability**

No decomposition when used as intended.

**10.3. Possibility of hazardous reactions**

No dangerous reactions are known.

**10.4. Conditions to avoid**

UV-solarization/sunlight.

Keep away from moisture.

No decomposition when used as intended.

**10.5. Incompatible materials**

Oxidizing agents, strong.

**10.6. Hazardous decomposition products**

No hazardous decomposition products are known.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****ATEmix calculated**

ATE (oral) 555,6 mg/kg

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### Acute toxicity

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
107-21-1	ethanediol, ethylene glycol			
	oral	LD50 4700 mg/kg	Rat	GESTIS
	dermal	LD50 10600 mg/kg	Rabbit	GESTIS
149-57-5	2-ethylhexanoic acid			
	oral	LD50 3000 mg/kg	Rat	
	dermal	LD50 > 2000 mg/kg	Rabbit	
1310-58-3	caustic potash, potassium hydroxide			
	oral	LD50 273 mg/kg	Rat	RTECS

### Sensitising effects

no danger of sensitization.

## SECTION 12: Ecological information

### 12.1. Toxicity

fish toxicity:

Oncorhynchus mykiss LC50 > 18.500 mg/l 96h

aquatic toxicity:

Daphnia EC50 > 10.000 mg/l 48h

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h]   [d]	Species	Source
149-57-5	2-ethylhexanoic acid				
	Acute fish toxicity	LC50 > 250 mg/l	96 h	Leuciscus idus	
	Acute algae toxicity	ErC50 61 mg/l	72 h	Algae	
	Acute crustacea toxicity	EC50 85,4 mg/l	48 h	Daphnia magna	
1310-58-3	caustic potash, potassium hydroxide				
	Acute fish toxicity	LC50 80 mg/l	96 h	Gambusia affinis	IUCLID

### 12.2. Persistence and degradability

Biological degradation: 56 % 28h

Easily biodegradable (concerning to the criteria of the OECD)

### 12.3. Bioaccumulative potential

No indication of bio-accumulation potential.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-21-1	ethanediol, ethylene glycol	-1,36
149-57-5	2-ethylhexanoic acid	2,7

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

No information available.



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according to Regulation (EC) No 1907/2006

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#### Further information

Do not allow to enter into surface water or drains.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Advice on disposal

Do not dispose with household waste.

Arrange about the exact waste code with the local waste disposal expert.

Carry out a burning of hazardous waste according to official regulations.

##### Waste disposal number of waste from residues/unused products

160114 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08); antifreeze fluids containing hazardous substances  
Classified as hazardous waste.

##### Waste disposal number of contaminated packaging

160114 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08); antifreeze fluids containing hazardous substances  
Classified as hazardous waste.

##### Contaminated packaging

Container must be completely emptied.

Explosive.

Do not pierce, cut up or weld unclean container.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number:** -

**14.2. UN proper shipping name:** -

**14.3. Transport hazard class(es):** -

**14.4. Packing group:** -

##### Other applicable information (land transport)

No dangerous good in sense of these transport regulations.

#### Inland waterways transport (ADN)

##### Other applicable information (inland waterways transport)

No dangerous good in sense of these transport regulations.

#### Marine transport (IMDG)

##### Other applicable information (marine transport)

No dangerous good in sense of these transport regulations.

#### Air transport (ICAO-TI/IATA-DGR)

##### Other applicable information (air transport)

No dangerous good in sense of these transport regulations.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

No information available.



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#### **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No information available.

### **SECTION 15: Regulatory information**

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

##### **National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

#### **15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

### **SECTION 16: Other information**

#### **Relevant H and EUH statements (number and full text)**

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

#### **Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*