

Radiatorfreeze Protection blue G11

Revision date: 29.10.2015

Product code: 1552

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

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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: 32030, 32031, 32032, 32034, 32035, 32036

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Acute toxicity: Acute Tox. 4

Specific target organ toxicity - repeated exposure: STOT RE 2

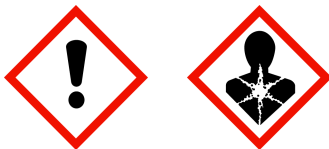
Hazard Statements:

Harmful if swallowed.

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

Signal word: Warning**Pictograms:****Hazard statements**

H302	Harmful if swallowed.
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.
P270	Do not eat, drink or smoke when using this product.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P501	Dispose of this material and its container to hazardous or special waste collection point.

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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			60 - 99 %
	203-473-3		01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			
7631-99-4	Sodium-nitrate			0,1 - 1,0 %
	231-554-3			
	Ox. Sol. 2, Eye Irrit. 2; H272 H319			
12179-04-3	disodium tetraborate pentahydrate; borax pentahydrate			0,2 - 5 %
	215-540-4		01-2119490790-32	
	Repr. 1B, Eye Irrit. 2; H360FD H319			

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

Further Information

SVHC:
12179-04-3 disodium tetraborate pentahydrate; borax pentahydrate

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.

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

No information available.

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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 (CO₂).**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.

Further information on storage conditions

Hygroscopic product.

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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 ³	fib/cm ³	Category	Origin
12179-04-3	Borate (tetra) sodium pentahydrate	-	1		TWA (8 h)	
		-	-		STEL (15 min)	
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	
		40	104		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/blue
Odour:	characteristic

Test method

Changes in the physical state

Melting point:	-12 °C
Initial boiling point and boiling range:	197 °C
Flash point:	111 °C

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Lower explosion limits: 3,2 vol. %
 Upper explosion limits: 53 vol. %
 Ignition temperature: 400 °C
 Vapour pressure: 0,5 hPa
 (at 20 °C)
 Density (at 20 °C): 1,10 g/cm³
 Water solubility: easily soluble.
 (at 20 °C)

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) 503,3 mg/kg

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
7631-99-4	Sodium-nitrate			
	oral	LD50 3236 mg/kg	Rat	
12179-04-3	disodium tetraborate pentahydrate; borax pentahydrate			
	inhalative (4 h) vapour	LC50 >2,03 mg/l	Rat	

Sensitising effects

no danger of sensitization.

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SECTION 12: Ecological information

12.1. Toxicity

fish toxicity:

Oncorhynchus mykiss LC50 > 18.500 mg/l 96h

aquatoxicity:

Daphnia EC50 > 10.000 mg/l 48h

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

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.

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

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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.

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****EU regulatory information**

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):
disodium tetraborate pentahydrate; borax pentahydrate

Restrictions on use (REACH, annex XVII):

Entry 30: disodium tetraborate pentahydrate; borax pentahydrate

Additional information

Contains:

< 5 % anionic surfactants

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)**

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.



Safety Data Sheet

bluechem 
GROUP

according to Regulation (EC) No 1907/2006

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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.

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