

**Radiator Conditioner**

Revision date: 10.09.2015

Product code: 1326

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

Radiator Conditioner

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**care agent  
corrosion preventing 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: 33306, 33300, 33301, 33309, 33305, 33303

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

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Harmful if swallowed.

Causes skin irritation.

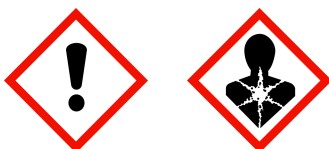
Causes serious eye irritation.

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-aminoethanol, ethanolamine

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

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

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### Precautionary statements

- P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves and eye/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of 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.  
P314 Get medical advice/attention if you feel unwell.  
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

Additives  
corrosion preventing agent

#### 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			65 - < 70 %
	203-473-3		01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			
N/A	polymers, org. phosphorus compound			1 - < 5 %
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			
N/A	carboxylic acid with ethanolamine			1 - < 5 %
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			
141-43-5	2-aminoethanol, ethanolamine			1 - < 5 %
	205-483-3	603-030-00-8		
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B; H332 H312 H302 H314			
12179-04-3	disodium tetraborate pentahydrate; borax pentahydrate			1 - < 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

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH:  
>= 0,1 % disodium tetraborate decahydrate; borax decahydrate

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

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**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**

Frequently or prolonged contact with skin may cause dermal irritation.  
Irritation of eyes: Irritant effect possible.  
After ingestion: Harmful.  
Irritant and corrosive effects.

**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.

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### 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

No data

## 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.  
Storage temperature: at below °C: 50 °C

#### Advice on storage compatibility

Should be stored separately from oxidizing agents.

#### Further information on storage conditions

Hygroscopic product.  
Store container under dry conditions and firmly closed.

### 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	1,2-Dihydroxyethane, particulate	-	10		TWA (8 h)	
		-	-		STEL (15 min)	
12179-04-3	Disodium tetraborate pentahydrate	-	1		TWA (8 h)	
		-	-		STEL (15 min)	
141-43-5	Ethanolamine (2-Aminoethanol)	1	2.5		TWA (8 h)	
		3	7.6		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.



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according to Regulation (EC) No 1907/2006

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#### Hand protection

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

NBR (Nitrile rubber).  
Material thickness: 0,35 mm  
penetration time:  $\geq 8$  h

#### Skin protection

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

#### Respiratory protection

In case of accumulation of fumes/aerosols, provide adequate ventilation.  
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:	colourless, clear
Odour:	odourless

pH-Value (at 20 °C):	9 - 10
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#### Test method

#### Changes in the physical state

Ignition temperature:	$> 400$ °C
Density (at 20 °C):	1,09 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.  
Do not store at temperatures over: 50 °C  
No decomposition when used as intended.

#### 10.5. Incompatible materials

Oxidizing agents, strong.  
acid, concentrated.  
Alkalis (alkalis), concentrated.

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### 10.6. Hazardous decomposition products

nitrogen oxides (NO<sub>x</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### ATEmix calculated

ATE (oral) 753,8 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
141-43-5	2-aminoethanol, ethanolamine				
	oral	LD50	1515 mg/kg	Rat	
	dermal	LD50	1025 mg/kg	Rabbit	IUCLID
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		
12179-04-3	disodium tetraborate pentahydrate; borax pentahydrate				
	inhalative (4 h) vapour	LC50	>2,03 mg/l	Rat	

#### Irritation and corrosivity

In case of prolonged or frequently repeated skin contact: Irritant.

Following eye contact: Irritant.

After ingestion: Irritant and corrosive effects

## SECTION 12: Ecological information

### 12.1. Toxicity

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h]   [d]	Species	Source
141-43-5	2-aminoethanol, ethanolamine				
	Acute fish toxicity	LC50	150 mg/l	96 h Onchorhynchus mykiss	IUCLID
	Acute algae toxicity	ErC50	22 mg/l	72 h Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50	65 mg/l	48 h Daphnia magna	

### 12.2. Persistence and degradability

No information available.

### 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
141-43-5	2-aminoethanol, ethanolamine	-1,91 (25°C)

### 12.4. Mobility in soil

No information available.

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**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.

Have to add a Special treatment in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

**Contaminated packaging**

Container must be completely emptied.

Cleaned containers may be recycled.

**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.

**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**



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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

#### 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.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H360FD	May damage fertility. May damage 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.

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