

## Radiator Flush

Print date: 15.07.2016

Product code: 1401

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

#### 1.1. Product identifier

Radiator Flush

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

##### Use of the substance/mixture

Cleaning agent for radiators

#### 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: PWT1501

### SECTION 2: Hazards identification

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

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

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

#### 2.2. Label elements

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

Signal word: Warning

Pictograms:



##### Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

##### Precautionary statements

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

P102 Keep out of reach of children.

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.

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

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**

Organic and inorganic acides  
corrosion preventing agent  
Cleaning agent.

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
5329-14-6	sulfamic acid, sulphamic acid, sulphamidic acid			10 - < 15 %
	226-218-8		01-2119488633-28	
	Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 3; H315 H319 H412			
5949-29-1	citric acid			1 - < 5 %
	201-069-1		01-2119457026-42	
	Eye Irrit. 2; H319			

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. Move victim to fresh air. Put victim at rest and keep warm.  
Immediately remove any wetted clothing, shoes or stockings.

**After inhalation**

Provide fresh air. In case of difficulties of breathing consult physician.

**After contact with skin**

Change contaminated clothing. After contact with skin, wash immediately with plenty of water and soap.  
Wash contaminated clothing prior to re-use.

**After contact with eyes**

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.  
Consult physician.

**After ingestion**

Rinse mouth immediately and drink plenty of water.  
Do NOT induce vomiting. Consult physician.

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

Irritant effect on the skin: Irritant and corrosive effects.  
Following eye contact: Risk of serious damage to eyes.  
After ingestion: Harmful. Irritant and corrosive effects.

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

The following symptoms may occur:  
Coughing. Nausea. shortage of breath. Belly-ache.

**SECTION 5: Firefighting measures**

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**5.1. Extinguishing media**

**Suitable extinguishing media**

Extinguishing powder. Sand. alcohol resistant foam.

**Unsuitable extinguishing media**

High power water jet.

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

Sulphur dioxide (SO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Ammonia.

**5.3. Advice for firefighters**

No information available.

**Additional information**

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

**SECTION 6: Accidental release measures**

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

Provide adequate ventilation. Avoid contact with skin and eyes.

**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**

Prevent spreading of spillages (e.g. by oil barrier).

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

**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 place.

Avoid contact with skin and eyes.

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

**Advice on storage compatibility**

Do not store together with: Alkalis (alkalis).

**7.3. Specific end use(s)**

No information available.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**8.2. Exposure controls**

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately.

Avoid contact with skin and eyes.

**Eye/face protection**

Wear tightly sealed safety glasses against possible splashes into the eyes.

**Hand protection**

Tested protective gloves are to be worn: Butyl rubber.

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**SECTION 9: Physical and chemical properties**

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

Physical state: liquid, clear  
 Colour: light yellow  
 Odour: odourless

**Test method**

pH-Value (at 20 °C): 0-1

**Changes in the physical state**

Melting point: < 0 °C  
 Initial boiling point and boiling range: > 100 °C  
 Density (at 20 °C): 1,07 g/cm<sup>3</sup>  
 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**

none

**10.5. Incompatible materials**

Oxidizing agents. Alkalis (alkalis), concentrated.

**10.6. Hazardous decomposition products**

Sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), Ammonia.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

CAS No	Chemical name				
	Exposure route	Method	Dose	Species	Source
5329-14-6	sulfamic acid, sulphamic acid, sulphamidic acid				
	oral	LD50	3160 mg/kg	Rat	
5949-29-1	citric acid				
	oral	LD50	5400 mg/kg	mouse.	
	dermal	LD50	>2000 mg/kg	Rat	

**Irritation and corrosivity**

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Irritant effect on the skin: Irritant and corrosive effects  
Following eye contact: Risk of serious damage to eyes.

**Sensitising effects**

none

**SECTION 12: Ecological information**

**12.1. Toxicity**

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
5329-14-6	sulfamic acid, sulphamic acid, sulphamidic acid					
	Acute fish toxicity	LC50	70,3 mg/l	96 h	Pimephales promelas	
5949-29-1	citric acid					
	Acute fish toxicity	LC50	440 mg/l	96 h	Leuciscus idus	
	Acute algae toxicity	ErC50	425 mg/l	96 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50	1535 mg/l	48 h	Daphnia magna	

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

**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.  
product is acid. The product needs to apply neutralizing agents before draining to wastewater treatment plants.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Advice on disposal**

Do not dispose with household waste.  
Do not allow to enter into surface water or drains.  
Arrange about the exact waste code with the local waste disposal expert.  
product is acid. The product needs to apply neutralizing agents before draining to wastewater treatment plants.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

<b>14.1. UN number:</b>	UN 2967
<b>14.2. UN proper shipping name:</b>	SULPHAMIC ACID
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	III
Hazard label:	8

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Classification code: C2  
 Limited quantity: 5 kg  
 Excepted quantity: E1  
 Transport category: 3  
 Hazard No: 80  
 Tunnel restriction code: E

**Inland waterways transport (ADN)**

**14.1. UN number:** UN 2967  
**14.2. UN proper shipping name:** SULPHAMIC ACID  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
 Hazard label: 8



Classification code: C2  
 Limited quantity: 5 kg  
 Excepted quantity: E1

**Marine transport (IMDG)**

**14.1. UN number:** UN 2967  
**14.2. UN proper shipping name:** SULPHAMIC ACID  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
 Hazard label: 8



Marine pollutant: -  
 Special Provisions: -  
 Limited quantity: 5 kg  
 Excepted quantity: E1  
 EmS: F-A, S-B

**Air transport (ICAO)**

**14.1. UN number:** UN 2967  
**14.2. UN proper shipping name:** SULPHAMIC ACID  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
 Hazard label: 8



Special Provisions: A803  
 Limited quantity Passenger: 5 kg  
 Passenger LQ: Y845

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Excepted quantity:	E1	
IATA-packing instructions - Passenger:		860
IATA-max. quantity - Passenger:		25 kg
IATA-packing instructions - Cargo:		864
IATA-max. quantity - Cargo:		100 kg

**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**

**Additional information**

Contains:

- 5 - 15 % nonionic tensides
- < 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)**

- |      |  |
|------|--|
| H315 | Causes skin irritation.                            |
| H319 | Causes serious eye irritation.                     |
| H412 | Harmful to aquatic life with long lasting effects. |

**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.)*