



According to the Model WHS Regulations and the ADG code

Radiator Flush

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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: Bluechem Australia

Street: UNIT 4, 63 BRUNEL ROAD SEAFORD

Place: VICTORIA 3198 AUSTRALIA

Telephone: (03) 9311 4456 Telefax: (03) 9311 7712

e-mail: admin@bluechemaustralia.com.au

Contact person: Neil Cochrane

Internet: www.bluechemaustralia.com.au

1.4. Emergency telephone Emergency 24 HOUR: Neil Cochrane (03) 9311 4456 or 0498 880 115

number:

Further Information

Article Number: 33326

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS CHEMICAL ACCORDING TO SAFE WORK AUSTRALIA AND WHS CRITERIA.

CLASSIFIED AS DANGEROUS GOODS ACCORDING TO THE ADG CODE.

POISON SCHEDULE: 6

Classification according to WHS

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2A

Hazard Statements: Causes skin irritation.

Causes serious eye irritation.

2.2. Label elements

Labeling according to WHS

Component(s) to be indicated on the label

Sulfamic acid 10 -< 30 % Citric acid < 10 %

non-hazardous ingredients > 60 %

Signal word: Warning

Pictograms:



exclamation mark

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.





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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.

P264 Wash hands thoroughly after handling.

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.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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

P362+P364 Take off contaminated clothing and wash it before reuse.

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

Organic and inorganic acides corrosion preventing agent Cleaning agent.

non-hazardous ingredients > 80 %

Hazardous components

CAS No	Chemical name					
	EC No	Index No	REACH No			
	Classification according to WHS criteria					
5329-14-6	sulfamic acid, sulphamic acid, sulphamidic acid			10 -< 15 %		
	226-218-8		01-2119488633-28			
	Skin Irrit. 2, Eye Irrit. 2A, Aquatic Chronic 3; H315 H319 H412					
5949-29-1	citric acid					
	201-069-1		01-2119457026-42			
	Skin Irrit. 2, Eye Irrit. 2A, STOT SE 3; H315 H319 H335					

Full text of H and AUH phrases: 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.





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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

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 (SO2). Nitrogen oxides (NOx). Ammonia.

5.3. Advice for firefighters

HAZCHEM: 2X

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

Information for safe handling look up chapter 7.

Information for personal protective equipment look up chapter 8.

Information for disposal see section 13.

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





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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

Occupational Exposure Limits (OEL) - Australia

No information available.

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.

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):

Changes in the physical state

Melting point: $$<0\,^\circ\text{C}$$ Initial boiling point and boiling range: $$>100\,^\circ\text{C}$$ Flash point: $$>93\,^\circ\text{C}$$ Density (at 20 $^\circ\text{C}$): $$1,07\,\text{g/cm}^3$$ Water solubility: easily soluble. (at 20 $^\circ\text{C}$)

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

No decomposition when used as intended.





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10.5. Incompatible materials

Oxidizing agents. Alkalis (alkalis), concentrated.

10.6. Hazardous decomposition products

Sulphur dioxide (SO2)., nitrogen oxides (NOx)., Ammonia.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

CAS No	Chemical name								
	Exposure route	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

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	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	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.





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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 (ADG)

14.1. UN number: UN 2967

14.2. UN proper shipping name: SULPHAMIC ACID

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8



Special Provisions: -

Limited quantity: 5 kg

Other applicable information (land transport)

HAZCHEM: 2X

Marine transport (IMDG)

14.1. UN number: UN 2967

14.2. UN proper shipping name: SULPHAMIC ACID

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8



Marine pollutant:

Special Provisions:

Limited quantity: 5 kg
Excepted quantity: E1
EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 2967

14.2. UN proper shipping name: SULPHAMIC ACID

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8



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Special Provisions:





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Limited quantity Passenger: 5 kg
Passenger LQ: Y845
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

Additional information POISON SCHEDULE: 6

All components of this mixture are listed on or exempted from AICS.

15.2. Chemical safety assessment

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

SECTION 16: Other information

Abbreviations and acronyms

ADG = Australian Code for the Transport of Dangerous Goods by Road & Rail

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

HAZCHEM = HAZardous CHEMicals

WHS = Work Health and Safety

NOHSC = National Occupational Health and Safety Commission (Australia)

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

DIN = Deutsche Industrie Norm

PBT = Persistent Bioaccumulative and Toxic

vPvB = Very Persistent and very Bio-accumulative





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LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

Relevant H and AUH phrases (number and full text)

H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory 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 singulary 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.)