

MATERIAL SAFETY DATA SHEET

1: Product and company identification

| Product | Radtech Radiator Flush | RTRF |
|-----------------------------|---|----------------------------|
| Proper Shipping Name | Radtech Radiator Flush | Hazard Class n/a |
| Recommended use | Cleaning rust and sludge in vehicle cooling systems | Packing Group n/a |
| Company | Fargo International Ltd | UN No n/a |
| Address | 71 Adams Drive, Auckland. New Zealand | Hazchem Code n/a |
| | | Subsidiary Risk n/a |
| Telephone | +64 9 238 2389 [8.00 - 4.30 Mon to Fri] | Poisons Schedule S6 |
| Fax | +64 9 238 2399 | |

Emergency Telephone +64 21 930 795 (24 hours emergency only)
National Poison Centre (24 hours): 0800 POISON [764 766]

2: Hazard identification

IRRITANT

Risk Phrases

R36/38 Irritating to eyes and skin.
 R52/53 Harmful to aquatic organisms; may cause long term adverse effects in aquatic environment.

Safety Phrases

S2 Keep out of reach of children.
 S24/25 Avoid contact with skin and eyes.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S28:SUACID After contact with skin, wash immediately with plenty of soap and water.
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S61 Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets.

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3: Composition/information on ingredients

| Ingredients | Content* | CAS No |
|--------------------------------------|----------|-----------|
| Sulphamic Acid | Low | 5329-14-6 |
| Proprietary solvents and surfactants | Medium | |
| Non Hazardous | High | |

*Content: High >60%, Medium 10 to 60%, Low 1 to 10%, Very Low <1%

4: First-aid measures

| | |
|----------------------------|---|
| Ingestion: | Do Not induce vomiting. Rinse mouth thoroughly with water immediately. Give water to drink. Immediately seek medical assistance. |
| Eyes: | Rinse cautiously with warm gently running water for several minutes. Continue for at least 15mins. Immediately seek medical advice/attention. |
| Skin: | Wash contaminated skin with plenty of soap & water. Remove contaminated clothing and wash before reuse. If irritation occurs seek medical advice. |
| Inhalation: | Remove exposed person to fresh air if adverse effects are observed. Allow victim to assume most comfortable position and keep warm. If breathing laboured and victim cyanotic (blue), ensure airways are clear. Seek medical attention. |
| Notes to Physician: | Treat symptomatically as for acids. Consult poisons information centre |

**FOR FURTHER INFORMATION CONTACT (24 hours)
THE NATIONAL POISON CENTRE: 0800 POISON [764 766]**

5: Fire-fighting measures

| | |
|---|---|
| Flash Point: | Non-flammable |
| Auto ignition temperature: | Non-flammable |
| Flammable limits in Air % by Volume: | Non-flammable |
| Extinguishing media: | Use foam, CO ² , Dry Chemical or Foam to extinguish fire. Water can be used to cool and protect exposed material. Water used on adjacent fires must be carefully handled if product has spilt. |
| Fire fighting instructions: | Recommend using self-contained breathing apparatus. |
| Unusual fire and explosion hazards: | None known |

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6: Accidental release measures

If product is released or spilled:

Personal Protection Equipment must be worn. See Section 8 for details.

Ventilate area if spilled in confined space or poorly ventilated area.

Collect into suitable containers for disposal. Residual liquid can be absorbed on inert material. Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.

Dispose through licensed disposal company.

7: Handling and storage

Handling Slippery when split. Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Avoid accidents, clean up immediately.

Storage Store in a cool dry well ventilated place and out of direct sunlight. Store away from acids, strong oxidising agents and foodstuffs.

8: Exposure controls and personal protection

Engineering Controls: General (mechanical) room ventilation is considered satisfactory. If dealing with high concentrations, use only with adequate ventilation or combination particulate/gas respirator. Maintain below Exposure Limit.

Eye / Face Protection: Avoid contact with the skin and eyes, and avoid breathing vapours and mists. When exposure limits is likely, use personal protective equipment in a combination appropriate to the exposure. Nitrile gloves, Respirator, Face shield and Safety glasses.

Body Protection: When exposure limits is likely, Coverall's and Rubber boots.

Respiratory Protection: Use combination particulate/gas respirator if recommended exposure limit is exceeded.

Exposure Limits: Acute: Oral: LD50 in rats is >140mg/kg.
TVL/TWA: 10 mg/m₃ (inspirable dust), STEL: 3 mg/m₃ (respirable dust) Not normally a factor if product is in liquid state.

9: Physical and chemical properties

| | | | |
|-------------------------|--------------------|-------------------------|--|
| Appearance | Clear Liquid | Solubility | 100% Soluble |
| Physical State | Liquid | % Volatiles | No data |
| Odour | Acrid | Vapour Pressure | <0.001mm Hg (1 Atm) @20 ⁰ C |
| Specific Gravity | 1.2 | Vapour Density | No data |
| pH | 4.0 | Flash Point | Non-flammable |
| Boiling Point | 110 ⁰ C | Flammable Limits | Non-flammable |

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10: Stability and reactivity

Stability of the substance: Stable under normal conditions of use

Conditions contributing to instability: Avoid storage with strong acid and strong oxidising agents

Incompatibility: Strong Acids and Oxidising agents

Hazardous decomposition products: Thermal decomposition – Toxic fumes and Oxides of Sulphur, Ammonia, Oxides of Nitrogen and Oxides of carbon.

Conditions contributing to hazardous polymerization: No Data

11: Toxicological information

Ingestion: Harmful if swallowed. May cause damage to mucous membranes. May cause burns to mouth, throat and stomach. Ingestion can cause nausea, abdominal pain and vomiting.

Inhalation: Not a normal route of harmful exposure. High concentrations of vapour can cause irritation of the respiratory tract.

Skin: Irritant to skin. Contact with skin may result in irritation with redness, pain and possible burns

Eyes: Irritant to eyes. May result in irritation with redness, pain and possible tissue damage

Acute Over-Exposure: No data

Chronic Effects: LD50 = 140mg/kg in rat.

12: Ecological information

Ecotoxicity: Harmful effect on aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Degradability: No information available.

Accumulation: Not expected to bioaccumulate.

Prevent product from entering drains, watercourses and sewers.



RTRF Radiator Flush

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13: Disposal considerations

Dispose through licensed disposal company.

14: Transport information

Land Transport (New Zealand)

| | | | |
|-----------------------|----------------|-------------------|-----|
| Regulation Name | n/a | Pack Group | n/a |
| UN Number | n/a | Precaution | n/a |
| Shipping Name | Radiator Flush | Hazchem Code | n/a |
| Dangerous Goods Class | n/a | EPG | n/a |
| Subsidiary Risk | n/a | Special Provision | n/a |

15: Regulatory information

HSNO Approval No:

Group Standard:

HSNO Classes:

16: Other information

New Zealand National Poison Information Centre (24 hours): 0800 POISON [764 766]

New Zealand Emergency Services: 111

For General Information contact: Fargo International Ltd
 Phone: +64 9 238 2389 [8.00 am to 4.30pm – Mon to Fri]
 Fax: +64 9 238 2399 Mob 021-930-795

24 Hour Emergency Tel No. Above Mobile

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