



Radiator flush

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010
Issue date: 2/14/2022 Revision date: 2/14/2024 Version: 1.1

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Trade name : Radiator flush
Type of product : Additive for vehicle cooling system
Product code : SH206
Product group : Trade product

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

Use of the substance/mixture :

1.3. Supplier's details

Manufacturer

Shield Chemicals (Pty) Ltd
9 London Rd Apex
P.O. Box 1939
1501 Benoni – Gauteng
South Africa
T (011) 421 7111
Contact: Jayson Clark

1.4. Emergency telephone number

Emergency number : (011) 421 7111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Skin corrosion/irritation, Category 1 H314
Serious eye damage/eye irritation, Category 1 H318
Full text of H-statements: see section 16

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA) :



Signal word (GHS-ZA) : Danger
Hazardous ingredients : Tetrasodium EDTA
Hazard statements (GHS ZA) : H314 - Causes severe skin burns and eye damage.
Precautionary statements (GHS ZA) : P260 - Do not breathe vapours.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear eye protection, protective clothing, protective gloves.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a doctor.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P363 - Wash contaminated clothing before reuse.

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P405 - Store locked up.
P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : Causes severe skin burns and eye damage, Causes serious eye damage.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to the United Nations GHS |
|------------------|--------------------|-----------|--|
| Tetrasodium EDTA | CAS-No.: 64-02-8 | 1.0 - 5.0 | Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 STOT RE Not classified Aquatic Acute 3, H402 Aquatic Chronic Not classified |

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe vapours.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe vapours. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



8.4. Exposure limit values for the other components

No additional information available

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Colour | : Blue. |
| Odour | : characteristic. |
| Odour threshold | : No data available |
| pH | : 11 – 12 |
| pH solution | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapour pressure | : No data available |
| Vapour pressure at 50 °C | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Relative density of saturated gas/air mixture | : No data available |
| Density | : No data available |
| Relative gas density | : No data available |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Partition coefficient n-octanol/water (Log Kow) | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |
| Lower explosive limit (LEL) | : No data available |
| Upper explosive limit (UEL) | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------------|---|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |
| Skin corrosion/irritation | : Causes severe skin burns. pH: 11 – 12 |
| Serious eye damage/irritation | : Causes serious eye damage. pH: 11 – 12 |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |

Tetrasodium EDTA (64-02-8)

| | |
|---|--|
| LOAEC (inhalation, rat,dust/mist/fume, 90 days) | 0.015 mg/l air Animal: rat, Animal sex: female, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study) |
| NOAEL (oral, rat, 90 days) | ≥ 500 mg/kg bodyweight Animal: rat |

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|---|
| Ecology - general | : Before neutralisation, the product may represent a danger to aquatic organisms. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified |

Tetrasodium EDTA (64-02-8)

| | |
|----------------------|---|
| EC50 - Crustacea [1] | 140 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | > 60 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| LOEC (chronic) | 50 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC (chronic) | 25 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic fish | ≥ 25.7 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '35 d' |

12.2. Persistence and degradability

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| | |
|-------------------------------|-------------------------------------|
| Persistence and degradability | No additional information available |
|-------------------------------|-------------------------------------|

12.3. Bioaccumulative potential

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| | |
|---------------------------|-------------------------------------|
| Bioaccumulative potential | No additional information available |
|---------------------------|-------------------------------------|

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12.4. Mobility in soil

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| | |
|------------------|-------------------------------------|
| Mobility in soil | No additional information available |
|------------------|-------------------------------------|

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

| SANS | IMDG | IATA |
|---|---|------------------------------------|
| 14.1. UN number | | |
| Not regulated for transport | | |
| 14.2. Proper Shipping Name | | |
| Not applicable | Not applicable | Not applicable |
| 14.3. Transport hazard class(es) | | |
| Not applicable | Not applicable | Not applicable |
| Not applicable | Not applicable | Not applicable |
| 14.4. Packing group | | |
| Not applicable | Not applicable | Not applicable |
| 14.5. Environmental hazards | | |
| Dangerous for the environment : No | Dangerous for the environment : No Marine pollutant : No | Dangerous for the environment : No |
| No supplementary information available | | |

14.6. Special precautions for user

SANS
No data available

IMDG
No data available

IATA
No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health, and environmental national regulations specific for the product

No additional information available

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SECTION 16: Other information

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Full text of H-statements

| | |
|------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H402 | Harmful to aquatic life |

Safety Data Sheet (SDS), South Africa

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.