1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SAMPSON CHEMICAL PRODUCTS
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Product Name: RUST AND SCALE REMOVER
Synonyms: ACID BASED SCALE REMOVER
Manufacturer's Product Code(s): RUST
Use: SCALE, CALCIUM AND RUST REMOVER
UN Number: 1805
Proper Shipping Name: CORROSIVE LIQUID N.O.S.
Dangerous Goods Class: 8
Subsidiary risk: None allocated
Packing Group: 111
Hazchem Code: 2R

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>SUBSTANCE NAME</th>
<th>Proportion</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORTHOPHOSPHORIC ACID</td>
<td>50-60%</td>
<td>7664-38-2</td>
</tr>
<tr>
<td>OTHER INGREDIENTS</td>
<td>BALANCE</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARD IDENTIFICATION

Hazardous according to the criteria of Worksafe Australia

Hazard Category: Irritant

ACUTE HEALTH EFFECTS

Swallowed: May cause irritation to mouth, throat and stomach with effects including mucous build up, irritation to the tongue and lips and pains in the stomach.

Eye: Will cause irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision. Depending upon duration of exposure, eye damage may occur.

Skin: Will cause irritation to the skin, with effects including redness, itchiness, and possible dermatitis.

Inhaled: May cause irritation to the nose, throat and respiratory system with effects including: Dizziness, headache and possible confusion.

Chronic: Prolonged or repeated skin contact may lead to dermatitis. This product may cause severe eye irritation and depending upon duration of exposure, some form of permanent eye damage may occur.

4. FIRST AID MEASURES

Swallowed: If swallowed, DO NOT induce vomiting. Seek urgent medical assistance.

Eye: If material is splashed into eyes, flush with plenty of water for at least 15 minutes, ensuring eyelids are held open. Immediately transport to hospital or doctor.

Skin: If material is splashed onto the skin, remove any contaminated clothing and wash skin thoroughly with water and soap if available.

Inhaled: Remove victim to fresh air. Apply resuscitation if victim is not breathing - DO NOT USE DIRECT MOUTH - TO - MOUTH METHOD if victim ingested or inhaled substance; use alternative respiratory method or proper respirator device - First Aid Facilities: Eye wash fountain, safety shower and normal washroom facilities.

Advice to Doctor: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Fire/Explosion Hazard:
CAUTION: Use of water spray when fighting fire may be inefficient.

EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide, foam or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus (SCBA) required for fire-fighting personnel. If possible to do so safely, shut off fuel to fire. Use water spray to cool fire-exposed surfaces and to protect personnel.

UNUSUAL FIRE AND EXPLOSION HAZARDS: If tanks, drums or containers of this material are heated, they may rupture and project corrosive liquids over a wide area.

Flammability: Not flammable or combustible. If involved in a fire may generate noxious and corrosive fumes.
6. ACCIDENTAL RELEASE MEASURES

EMERGENCY ACTION: Keep unnecessary people away; Isolate hazard area and deny entry. Stay upwind; Keep out of low areas. Isolate for 800 m in all directions if tank, rail car or tanker truck is involved in fire.

SPILL OR LEAK PROCEDURE: Shut off ignition sources, no flares, smoking or flames in hazard area. Stop leak if you can do it without risk. Water spray may reduce vapour; but it may not prevent ignition in closed spaces.

SMALL SPILLS: Take up with sand, dirt or vermiculite. DO NOT use sawdust. Use non-sparking tools. Place into labeled drum(s) for later disposal.

LARGE SPILLS: Notify Emergency Services (Police or Fire Brigade). Tell them location, nature and any information that would be helpful. Contain spill. Remove all ignition sources and safely stop flow of spill. Bund area. Trained personnel should wear Personal Protective equipment as highlighted in this MSDS. Blanket the spill with foam or use water fog to disperse vapour clouds. Consult an expert regarding disposal of this product.

7. HANDLING AND STORAGE

Many of these substances are reactive with water and may cause noxious and toxic fumes to be generated. Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition, strong alkalis, acids, combustibles and oxidizing agents. All equipment must be earthed. Store in original packages as approved by manufacturer. Check all fittings, valves, reticulation (piping) and any ancillary equipment for leaks. A supplied air respirator or a Self-Contained Breathing Apparatus (SCBA) for emergencies should be available and checked regularly. For further information please refer to the Engineering Controls of this MSDS.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

ORTHOPHOSPHORIC ACID
(Worksafe Australia) [TWA] 1 mg/m³ [STEL] 3 mg/m³
(ACGIH) [TWA] 1 mg/m³ [STEL] 3 mg/m³

Notices: H

Engineering Controls
Corrosive liquid. Single significant exposure may cause severe injury. Maintain adequate ventilation at all times. Prevent accumulation of gas(es) in hollows or sumps. Eliminate any sources of ignition. Exposure to this material may be controlled in a number of ways. The measures appropriate for a particular worksite depend on how the material is used and on the potential for exposure. Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions. If engineering controls and work practices are not effective in preventing or controlling exposure, then suitable personal protective equipment, which is known to perform satisfactorily, should be used.

Personal Protection Equipment

CLOTHING: PVC, Nitrile, Neoprene, Natural rubber or any other type of apron or splash suit as recommended by the manufacturer.

GLOVES: PVC, Nitrile, Neoprene, Natural rubber or any other type of glove as recommended by the manufacturer.

EYES: Chemical goggles or face shield to protect eyes.

RESPIRATORY PROTECTION: Avoid breathing of gases. Select and use respirators in accordance with AS/NZS 1715/1716. When the concentration of airborne contaminants reach the exposure standards then the use of a half-face respirator with acid vapour cartridge is recommended. For high concentration use an atmosphere-supplied, positive pressure demand self-contained or airline-breathing apparatus supplied air respirator complying with the requirements of AS/NZS 1715 is recommended. Filter capacity and respirator type depends on exposure levels. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended. The use of fully encapsulating, gas-tight suits are also recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: LOW VISCOSITY FLUID WITH SLIGHTLY SOUR ODOUR
Boiling Point Melting Point: 100 oC
Vapour Pressure: N/A
Specific Gravity: 1.15
Flash Point: NON-FLAMMABLE
Flammability Limits: NON-FLAMMABLE
Solubility in Water: COMPLETE
Other Properties pH 1.0

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions of use.
Hazardous Decomposition Products: Emits choking and corrosive fumes when heated to decomposition.
Hazardous Polymerization: Will not occur.
Incompatibilities: Strong alkalis and oxidizing agents.
Conditions to Avoid: Heat, flames, ignition sources and incompatibles.
11. TOXICOLOGICAL INFORMATION

RISK PHRASES
R36/38 Irritating to eyes and skin.

SAFETY PHRASES
S1/2 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 contact a doctor or Poisons Information Centre.
S28 After contact with skin, wash immediately with plenty of soap and water.
S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately and show this container or label.

12. ECOLOGICAL INFORMATION

None allocated

13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

UN Number: 1805
Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, N.O.S.
Dangerous Goods Class: 8
Subsidiary risk: None allocated
Packing Group: III
Hazchem Code: 2R

Classified as a CLASS 8 (CORROSIVE) Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail, 6th Edition.

Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following:
- Class 1
- Class 4.3 - Class 5 - Class 7
- Class 6, [if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids]
- and are incompatible with food and food packaging in any quantity.

For TOXIC AND/OR CORROSIVE Guide No: 37

15. REGULATORY INFORMATION

Poison Schedule: None allocated

16. OTHER INFORMATION

CONTACT DETAILS
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Hazardous according to criteria of Worksafe Australia

RUST AND SCALE REMOVER

MSDS RUST AND SCALE REMOVER