

Material Safety Data Sheet

May be used to comply with
 OSHA's Hazard Communication Standard
 29 CFR 1910.1200. Standard must be
 consulted for specific requirements.

Product Identity – Section I

Product Name: **RUST OFF**
 CAS #: See Below
 Manufacturer: Arcal Chemicals, Inc.
 Address: 223 Westhampton Avenue
 Capitol Heights, MD 20743

Emergency Tele: (800) 424-9300
 Revision Date: 01 January 2008
 Other Tele: (301) 336-9300
 Fax: (301) 336-6597

HAZARDOUS INGREDIENTS / OTHER COMPONENTS – SECTION II

| MATERIAL / CAS # | ACGIH (TLV – TWA) | OSHA (PEL -TWA) |
|---|---|---|
| Hydrogen Chloride CAS # 7647-01-1 Phosphoric Acid CAS # 7664-38-2 Ammonium Bifluoride CAS # 1341-49-7 | 5 PPM 1 mg/m ³ 2.5 mg/m ³ | 5 PPM 1 mg/m ³ 2.5 mg/m ³ |

PHYSICAL DATA – SECTION III

| | | | |
|------------------------------------|--|--------------------------|----------------------------------|
| APPEARANCE : Clear solution | ODOR: Acidic, choking | MELT POINT: N/A | SPECIFIC GRAVITY: 1.22 |
| VAPOR DENSITY: N/A | % VOLATILE BY VOLUME: N/A | BULK DENSITY: N/A | BOILING POINT: 212°F |
| VAPOR PRESSURE: N/A | % SOLUBILITY (H2O): Complete | | |

FIRE AND EXPLOSION HAZARD DATA – SECTION IV

| FLASH POINT: None | <table border="1"> <thead> <tr> <th colspan="2">NFPA FIRE HAZARDS</th> </tr> </thead> <tbody> <tr> <td>HEALTH</td> <td style="text-align: center;">3</td> </tr> <tr> <td>FLAMMABILITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td>REACTIVITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td>SPECIFIC</td> <td></td> </tr> </tbody> </table> | NFPA FIRE HAZARDS | | HEALTH | 3 | FLAMMABILITY | 0 | REACTIVITY | 0 | SPECIFIC | |
|---|--|-------------------|--|---------------|---|---------------------|---|-------------------|---|-----------------|--|
| NFPA FIRE HAZARDS | | | | | | | | | | | |
| HEALTH | | 3 | | | | | | | | | |
| FLAMMABILITY | | 0 | | | | | | | | | |
| REACTIVITY | 0 | | | | | | | | | | |
| SPECIFIC | | | | | | | | | | | |
| FLAMMABLE LIMITS LEL: None UEL: None | | | | | | | | | | | |
| EXTINGUISHING MEDIA: CO ₂ and water. This product will not support combustion. | | | | | | | | | | | |
| SPECIAL FIRE FIGHTING PROCEDURES: Use self-contained breathing apparatus. Keep container cool. Ventilate area as much as possible. | | | | | | | | | | | |
| <p>UNUSUAL FIRE AND EXPLOSION HAZARDS: Acidic product. Reacts with metals to produce hydrogen.</p> <p>DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS: CO₂, and oxides of nitrogen with incomplete combustion; hydrogen fluoride gas when heated.</p> <p>EMPTY CONTAINER WARNING: Empty containers retain hazardous residue. Keep away from alkaline material, metals and oxidizing agents. Rinse container before discarding.</p> | <p>4 = EXTREME 3 = HIGH 2 = MODERATE 1 = SLIGHT 0 = INSIGNIFICANT</p> | | | | | | | | | | |

REACTIVITY DATA – SECTION V

Rust Off

Stability: Stable & polymerization will not occur

CONDITIONS TO AVOID: None known

INCOMPATIBILITY (MATERIAL TO AVOID): Avoid contact with alkaline material, metal powders and strong oxidizing agents.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: CO₂, and oxides of nitrogen with incomplete combustion.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: None known

HEALTH HAZARD DATA – SECTION VI

Route(s) of Entry: **Inhalation?** Yes **Skin?** Yes **Ingestion?** Yes

Health Hazards (Acute and Chronic): Irritation or burns on skin and eyes; irritation of mucous membranes. Irritation of respiratory tract with burning and coughing. Fluoride will penetrate skin and can cause serious internal damage, which will be apparent only hours later.

CARCINOGENICITY: None

NTP? N/A

IARC Monographs?

N/A

OSHA? N/A

MEDICAL CONDITIONS

GENERALLY AGGRAVATED by EXPOSURE: Skin and eye irritation, dizziness, respiratory tract irritation and other lung conditions.

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: If splashed into eyes, rinse eyes with large amounts of water for at least 15 minutes or until irritation subsides, and get immediate medical attention.

SKIN CONTACT: In case of skin contact, remove any contaminated clothing, and flush skin with cold water for 15 minutes; soak contaminated area in 0.13% iced aqueous Zephiran Chloride solution for 30-60 minutes and call a physician immediately.

INHALATION: If overcome by vapor, remove person to fresh air if breathing is difficult, and give oxygen; seek medical attention. If breathing has stopped, start resuscitation, and administer oxygen if available. Seek immediate medical attention.

INGESTION: If ingested, DO NOT induce vomiting; call a physician immediately.

PRECAUTIONS FOR SAFE HANDLING AND USE – SECTION VII

Steps to be taken in case material is released or spilled: Contain spill. Neutralize with hydrated lime. Flush area with water.

Waste Disposal Method: Adjust pH and dispose in accordance with federal, state and local regulations.

Precautions to be taken in handling and storing: Store in cool, well-ventilated area. Keep containers closed when not in use. Separate from oxidizing agents and alkalis. Avoid skin contact; remove contaminated clothing.

CONTROL MEASURES – SECTION VIII

Respiratory or breathing apparatus: Respirator rated for acid fumes.

Ventilation: Yes

Local Exhaust:
Mechanical: General air dilution

Special:
Other:

Protective Gloves: Chemical resistant/rubber

Eye Protection: Face shield or goggles

Other Protective Clothing or Equipment: Chemical resistant apron, boots and other protective gear.

TRANSPORTATION INFORMATION

UN1789, HYDDROCHLORIC ACID SOLUTION, 8, PG:II (labels: CORROSIVE)