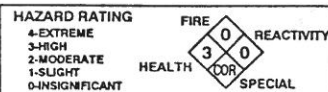


ATRIAL SAFETY DATA SHEET

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

DATE PREPARED: 06-29-94
PREPARED BY: Technical Department



SECTION 1 — PRODUCT IDENTIFICATION

MANUFACTURER NAME J.F. Daley International Ltd.
1200 Switzer Ave.
St. Louis, MO 63147

EMERGENCY TELEPHONE NO. 1-800-535-5053

INFORMATION TELEPHONE NO. 314-381-8913

TRADE NAME Rust Buster (488)

SYNONYMS Rust stain remover

CHEMICAL FAMILY/FORMULA Inorganic Acid/Salt Solution

SECTION 2 — HAZARDOUS INGREDIENTS

CHEMICAL NAME	CAS #	% (OPTIONAL)	TLV (SOURCE)
1,2,3,4 Hydrofluoric Acid (Hydrogen Fluoride)	7664-39-3	< 10	TWA 2.5 mg/M3 (as F)
3 Ammonium Bifluoride	1341-49-7	< 30	TWA 2.5mg/M3 (as F)
1 2-Butoxy Ethanol	111-76-2	< 1	25ppm (skin)

Substances subject to the reporting requirements of 1) SARA Section 313 and 40 CFR Part 372; 2) Section 302; 3) CERCLA; 4) RCRA.

SECTION 3 — PHYSICAL DATA

BOILING POINT ($^{\circ}\text{F}$) > 200$^{\circ}\text{F}$	SPECIFIC GRAVITY ($\text{H}_2\text{O}=1.0$) 1.121@75$^{\circ}\text{F}$ ± 0.005	PERCENT VOLATILE Approx. 75%
VAPOR PRESSURE (mmHg) NA	VAPOR DENSITY (Air=1) Unknown	DENSITY 9.34 lbs/gal@75$^{\circ}\text{F}$
SOLUBILITY IN WATER		
<input checked="" type="checkbox"/> COMPLETE	<input type="checkbox"/> EMULSIFIABLE (OR DISPERSIBLE)	
<input type="checkbox"/> INSOLUBLE	<input type="checkbox"/> SLIGHT (OR PARTIAL)	
EVAPORATION RATE (vs H2O) ~1		
<input type="checkbox"/> FASTER	<input type="checkbox"/> SLOWER	<input checked="" type="checkbox"/> ABOUT THE SAME

APPEARANCE AND ODOR

Clear, colorless liquid with tangy odor.

SECTION 4 — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (T.C.C.) ☒ NONE TO BOILING

FLAMMABLE LIMITS UPPER NA
LOWER NA

EXTINGUISHING MEDIA

Water fog, water stream, CO2, dry chemical, foam

SPECIAL FIRE FIGHTING PROCEDURES

Wear self contained breathing apparatus

UNUSUAL FIRE AND EXPLOSION HAZARDS

Reaction with certain metals may generate flammable and potentially explosive hydrogen gas

AUTOIGNITION TEMP/FIRE POINT

NA

SECTION 5 — REACTIVE DATA

STABILITY

Stable

INCOMPATIBILITY

Strong Alkalis, strong Oxidizers, metals. Do not mix or contaminate with any other materials.

HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen fluoride and Ammonia fumes

CONDITIONS TO AVOID

Heat. Contact with glass, porcelain and concrete

SECTION 6 — HEALTH HAZARDS

THRESHOLD LIMIT VALUE—PRODUCT (See Section 2 for Ingredients TLV)

☒ NONE ESTABLISHED ☐ NOT APPLICABLE SOURCE

PRIMARY ROUTES OF EXPOSURE

☒ EYE ☒ SKIN ☒ ORAL ☒ INHALATION ☐ OTHER

SIGNS AND SYMPTOMS OF OVER-EXPOSURE (ACUTE)

EYES—Redness and watering, extreme irritation. SKIN—Irritation, burns not immediately painful or apparent. ORAL—Irritation to oral cavity, nausea. INHALATION—Irritation to mucous membranes, shortness of breath.

SIGNS AND SYMPTOMS OF OVER-EXPOSURE (CHRONIC)

EYES—Severe burns, blindness. SKIN—Burns, blistering. ORAL—Burns to oral cavity, blistering. INHALATION—Burns to mucous membranes, coma.

MEDICAL CONDITIONS AGGRAVATED BY OVER EXPOSURE

Eye and skin allergies, open sores.

CARCINOGEN OR SUSPECT CARCINOGEN INGREDIENTS

Unknown

☐ NTP ☐ OSHA ☐ IARC ☒ NONE

SECTION 7 — EMERGENCY AND FIRST AID PROCEDURES

(If any condition persists, consult a physician.)

EYES Flush with plenty of water for 15 minutes. Hold eyelids open when flushing. Get medical attention.

SKIN Flush with large quantity of water for a minimum of 15 to 20 minutes, taking care to clean thoroughly under nails. Remove contaminated clothing and laundry before reuse. Get medical attention.

INGESTION Give large quantity of water to dilute. Do NOT induce vomiting. Several glasses of milk or several ounces of milk of magnesia may be given for their soothing effect. Get medical attention.

INHALATION Remove to fresh air. Assist breathing, if necessary. Get medical attention.

SECTION 8 — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

For prolonged use, wear NIOSH approved respirator for HF gas or mists, as applicable

VENTILATION REQUIREMENTS

None ☒ LOCAL EXHAUST ☐ MECHANICAL ☐ OTHER

PROTECTIVE CLOTHING

Rubber gloves, apron and boots (Neoprene, vinyl rubber or natural rubber)

EYE PROTECTION

Chemical goggles or full face shield

SECTION 9 — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF RELEASED OR SPILLED

SMALL—Contain spill and cautiously dilute with water. Cautiously neutralize with Sodium Bicarbonate or Soda Ash or lime. **LARGE**—Warning. Approach spill only when wearing NIOSH approved ventilator or self-contained breathing apparatus. Contain spill and cautiously dilute with water. Neutralize carefully with large quantities of Soda Ash or 10% Caustic Soda Solution.

WASTE DISPOSAL METHODS

Consult federal, state or local authorities for proper disposal procedures. When sewerage, if approved, do so with large quantity of water and add bicarbonate.

SECTION 10 — STORAGE AND HANDLING INFORMATION

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Store in a cool, dry place away from direct sunlight. Keep away from children in a locked storage cabinet or equivalent. Always wear at least chemical goggles and rubber gloves when handling even for short periods.

SPECIAL PRECAUTIONS

If contact occurs with eyes or skin, get first aid immediately even if discomfort is not apparent. DO NOT WAIT!

SECTION 11 — SHIPPING INFORMATION DOT REG ☒ YES ☐ NO

Corrosive Liquids, Poisonous, n.o.s. (Contains Hydrofluoric Acid, Ammonium Bifluoride), 8, UN2922, II