

MATERIAL SAFETY DATA SHEET

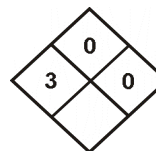
PRODUCT _____

ADCO RUST & STAIN REMOVER



NFPA HAZARD RATINGS*

Health	3	High health hazard
Fire	0	Noncombustible
Stability	0	Stable



SECTION 1: PRODUCT INFORMATION

Sold by: ADCO Cleaning Products LLC, 900 W. Main, Sedalia, MO 65301 (660) 826-3300

EMERGENCY TELEPHONE NUMBERS: CHEMTREC (800) 424-9300 24 HRS 7 DAYS A WEEK; ADCO (800) 821-7556 (8-5 M-F)

Intended Product Use: Removal of rust, metallic, and other stains

Synonyms: Rust remover

SECTION 2: HAZARDOUS INGREDIENTS

Chemical Name	%	CAS #	OSHA PEL	LD 50
Hydrogen fluoride*	1-3	7664-39-3	3 ppm TWA	No data

*In product hydrogen fluoride (a gas) is dissolved as the weak acid hydrofluoric acid. Hydrogen fluoride is released if the product is evaporated.

SECTION 3: PHYSICAL DATA

Appearance: Clear liquid
Odor: Sharp (acid) odor
Specific Gravity (20° C): 1.022
pH: 2

Boiling Point: Near 210°F
Solubility in Water: Miscible
Vapor Pressure (mm Hg): No data
Vapor Density: No data

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method)(°F): No data
Upper Flammable Limit: No data
Lower Flammable Limit: No data
Extinguishing Media: Not combustible
Special Fire Fighting Procedures: Cool fire exposed containers with water spray.

Unusual Fire and Explosion Hazards: Exposure to high temperatures may cause evaporation and release of hydrogen fluoride gas which is an irritant and is toxic and corrosive.

SECTION 5: REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Storage with ammonia or at temperatures above 120°F
Incompatibility (materials to avoid): Contact with metals, oxidizers, or alkaline materials.
Hazardous Decomposition Products: Toxic and corrosive fumes when boiled.
Hazardous Polymerization: Will not occur.

SECTION 6: HEALTH HAZARD DATA

Toxicity (Estimated): Oral toxicity moderate but causes severe burns.
Effects of Overexposure: Acute: Contact with eyes causes severe irritation to permanent visual defects or blindness. Contact with skin causes delayed irritation to severe burns. Inhalation can cause extreme irritation of respiratory tract, pulmonary inflammation, and congestion. Ingestion can cause burns and necrosis of esophagus and stomach, nausea, circulatory collapse, and death.
Chronic: Prolonged or repeated exposure may cause fluorosis, weight loss, malaise, anemia, leukopenia, discoloration of teeth, or osteosclerosis.
Carcinogenicity: None of the ingredients of this mixture have been identified as a carcinogen or probable carcinogen by ACGIH, IARC, or OSHA.

*Hazard ratings and other information are based on latest available information from tests on product or ingredients of mixtures. The data and evaluations are accurate to the best of ADCO's knowledge. No guarantee or liability is expressed or implied.

EXPOSURE LIMITS 3 ppm TWA (hydrogen fluoride)	IRRITANCY OF PRODUCT Severe eye and skin irritant	SENSITIZATION TO PRODUCT None reported	CARCINOGENICITY No components are listed by ACGIH, IARC or OSHA
TERATOGENICITY No effects reported	REPRODUCTIVE TOXICITY No effects reported	MUTAGENICITY None reported	SYNERGISTIC PRODUCTS None reported

Based on known toxicity of components. No test data available on mixture.

SECTION 7: PREVENTATIVE MEASURES

SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required when used as directed with adequate ventilation.

When cleaning up large spills in confined areas, self-contained breathing apparatus is recommended.

Ventilation: Normal industrial ventilation is adequate.

Protective Gloves: Use latex or other waterproof gloves.

Eye Protection: Use goggles or face mask if splashing is likely.

Other protection equipment ordinarily not needed. Availability of eye washes and adequate ventilation in work areas recommended.

STORAGE AND HANDLING:

Store in closed containers in cool area. Store and handle only in original plastic bottle. Product will etch glass and corrode metal.

SPILL OR LEAK PROCEDURES:

Steps to be taken if material is spilled: Cover with sodium bicarbonate solution or soda ash/lime mixture (50/50). Flush to sewer with excess amounts of cold water.

WASTE DISPOSAL METHOD:

Neutralize with soda ash/lime mixture (50/50). Flush to sewer with excessive amounts of water.

RECOMMENDED PRECAUTIONARY LABELING:

CAUTION:

Contains corrosive and toxic hydrofluoric acid. Contact with eyes or skin can cause burns that may not be immediately visible. Harmful or fatal if swallowed.

FIRST AID:

In case of contact, flush eyes 15 - 30 minutes with cool water. Remove contact lenses. Wash skin with cool water for 15 - 30 minutes. Follow by applying ice cold saturated solution of magnesium sulfate (Epsom salts) or iced 70% rubbing alcohol. If swallowed, do NOT induce vomiting. Rinse mouth several times with cold water. Drink large amounts of Milk of Magnesia or water followed by milk or whites of egg beaten with water. In all cases seek medical attention.

KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

This product is intended for professional use only by trained personnel.

SECTION 8: FIRST AID

Inhalation: Remove person to fresh air.

Eyes: In case of contact with eyes, flush eyes for 15 - 30 minutes with cool water. Remove contact lens.

Skin: Wash skin with cool water, repeat several times. Follow by applying ice cold saturated solution of magnesium sulfate (Epsom salts) or iced 70% rubbing alcohol.

Ingestion: If swallowed, do NOT induce vomiting. Rinse mouth with cold water. Drink large amounts of Milk of Magnesia, or take Tums, Roloids, or water followed by milk or whites of egg beaten in water. SEEK MEDICAL ATTENTION.

IF SYMPTOMS PERSIST, SEEK MEDICAL ASSISTANCE

SECTION 9: SARA TITLE III

NOTE: This product does contain some components which are under the reporting requirements of SARA Title III, Section 313. If you are required to report discharges using Form R, SARA Title III, Section 313, information is available on amounts of reportable components.

SECTION 10: PREPARATION DATE

This information is provided for guidance only based on information we have compiled. No guarantee of accuracy or completeness is expressed or implied.

ADCO RESEARCH DEPARTMENT

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