Spartan Chemical Company, Inc.
Material Safety Data Sheet

SECTION I: PRODUCT INFORMATION

Product Name or Number (as it appears on label):
CLOTHESLINE FRESH RUST & IRON REMOVER [S3]
Product Number: 7053; 7063

Product Division:
Janitorial

Spartan Chemical Company , Inc.
1110 Spartan Drive
Maumee OH 43537

Product/Technical Information: **1-(800)-537-8990**
Medical Emergency: **1-(888)-314-6171 (24 hours)**
Chemical Leak/Spill Emergency: **CHEMTREC 1-(800) 424-9300 (24 hours)**

Shipping Description: Corrosive liquids, n.o.s., 8, UN 1760, III (Contains ammonium hydrogendifluoride solution)

NFPA Ratings:	HMIS Ratings:
Health: 3 - Serious	**Health:** 3 - Serious
Fire: 0 - Minimal	**Fire:** 0 - Minimal
Reactivity: 0 - Minimal	**Reactivity:** 0 - Minimal
	Pers. Prot. Equip.: See Section VIII

SECTION II: HAZARDOUS INGREDIENTS

(Listed when present at 1% or greater, carcinogens at 0.1% or greater) All component chemicals are listed or exempted from listing on the "TSCA Inventory" of chemical substances maintained by the U.S. Environmental Protection Agency.

Chemical Name(s)	%Wt	CAS Registry No.	Table Z-1-A TWA mg/m^3	Table Z-1-A STEL mg/m^3	Table Z-1-A CEILING mg/m^3	NTP, IARC or OSHA Carcinogen
Ammonium bifluoride	1-5	1341-49-7	2.5 (Fluorine)	Not Established	Not Established	No
Citric Acid	1-5	77-92-9	Not Established	Not Established	Not Established	No

SECTION III: PHYSICAL DATA

Boiling Point:	212 °F	Vapor Pressure:	Unknown
Vapor Density (AIR = 1):	Unknown	Solubility in Water:	Complete
pH:	4.0-4.5	Specific Gravity (H_2O=1):	1.020 @ 75 F
Evaporation Rate (but.ace.=1):	<1	Percent Solid by Weight:	5-10
Physical State:	Liquid		
Appearance & Odor:	Clear liquid, mild odor		

SECTION IV: FIRE & EXPLOSIVE HAZARD DATA

Flash Point:	>212 °F	Method Used:	ASTM-D56
Flammable Limits:	Not Established	Flame Extension:	N/A
Extinguishing Media:	Product does not support combustion. Use extinguishing media appropriate for surrounding fire		
Special Fire Fighting Procedures:	Wear NIOSH approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.		
Unusual Fire & Explosive Hazards:	Combustion products are toxic and may contain hydrofluoric acid and/ or ammonia.		

SECTION V: HEALTH HAZARD DATA

Threshold Limit Value:	Not established	Primary Routes of Entry:	Inhalation, Skin Contact, Eyes; Oral

Effects of Overexposure-Conditions to Avoid: **CORROSIVE:**

Causes severe eye damage or irritation: Symptoms include chemical burns, pain, redness, swelling of the conjunctiva, tissue destruction and possible permanent corneal damage.

Causes severe skin damage or irritation: Symptoms include chemical burns, pain, redness and tissue destruction. **May be absorbed through the skin in harmful amounts.**

Harmful contact may not cause immediate pain.

Harmful or fatal if swallowed: Causes damage or chemical burns to esophagus and mucous membranes with symptoms of pain, nausea, vomiting and diarrhea.

Breathing product vapor or mist may cause respiratory irritation or damage and other toxic effects: Symptoms may include coughing and difficulty breathing. Inhalation of high concentrations presents a risk of chemical pneumonia and/or pulmonary edema.

Contains Ammonium bifluoride. Absorption by skin contact, ingestion, inhalation or other means may result in hypocalcemia (possible life threatening lowering of serum calcium) with nervous disorders (tetany) and cardiac arrhythmia. Chronic exposure to ammonium bifluoride can cause bone or dental fluorosis.

Do not get in eyes or on skin. Do not get on clothing that is being worn. Do not swallow. Avoid breathing product mists. Do not apply product by spraying. Use with adequate ventilation. Wash thoroughly after handling.

Conditions Aggravated by Use: Use of this product may aggravate preexisting skin; eye and respiratory disorders including asthma and dermatitis. Individuals with diabetes insipidus or some forms of renal impairment may be at greater risk from the effects of ammonium bifluoride.

Emergency & First Aid Procedures :

Eyes: Immediately flush eyes with water for at least 15 minutes. Remove contact lenses. Get medical attention.

Skin: Remove contaminated clothing and shoes. Rinse skin immediately with plenty of water for at least 15 minutes. Apply 2.5% calcium gluconate gel if available and rub into area using rubber gloves Get medical attention immediately. Wash contaminated clothing before reuse. Destroy contaminated shoes.

Ingestion: Get medical attention immediately. Do not induce vomiting. Drink one glass of milk or water to dilute product. Antacids such as calcium carbonate or milk of magnesia may also be given by mouth Such solutions can beneficial but also may be problematic if they induce vomiting Do not give anything by mouth to an unconscious person.

Inhalation: Move person to fresh air. Get medial attention.

Note to Physician: Consider administration of 1% calcium gluconate if swallowed Gastric lavage with calcium gluconate may be considered.

SECTION VI: REACTIVITY DATA

Stability:	Stable	Incompatible Materials:	Strong acids; Strong bases; Dissolves silicate containing materials such as glass and cement. Reacts with metals.
Hazardous Decomposition Products:	NH3, HF	Hazardous Polymerization:	Will Not Occur

SECTION VII: SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled	Contain spill with inert material and transfer to appropriate container for disposal Keep spill out of storm sewers and waterways.
Waste Disposal Method:	Dispose of in compliance with all federal, state and local laws and regulations.

SECTION VIII: SPECIAL PROTECTION INFORMATION

Respiratory Protection:	Not expected to be needed when good general ventilation is provided However if exposure limits are exceeded (see Section II) or if respiratory irritation occurs, the use of a NIOSH approved respirator suitable for the use-conditions and chemicals listed in Section II should be considered
Ventilation:	Provide good general ventilation Local exhaust ventilation may be necessary for some operations.
Protective Gloves(Specify Type):	Wear nitrile rubber or other impervious gloves to prevent contact Do not use latex gloves.
Eye Protection(Specify Type):	Splash goggles are recommended to prevent eye contact.
Other Protective Equipment:	Eye wash stations and washing facilities should be readily accessible in areas where product is handled. See 29 CFR 1910.132-138 for further guidance.

SECTION IX: SPECIAL PRECAUTIONS

Precautions; Handling & Storing:	Keep container tightly closed and store in a cool place Keep out of reach of children.
Other Precautions:	Do not mix with other chemicals.