

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FLEX Rust Sour

OTHER MEANS OF IDENTIFICATION: Not applicable.

GENERAL USE: For professional laundry use only.

PRODUCT DESCRIPTION: Rust Inhibiting Laundry Sour

DISTRIBUTOR

R. R. Street & Co. Inc.
184 Shuman Boulevard/Suite 150
Naperville, IL 60563

Product Information: 800-323-7206 (USA
& Canada only) or 630-416-4244

24 HR. EMERGENCY TELEPHONE NUMBERS

Medical Emergency: 866-303-6947 (USA & Canada
only) or 651-632-9272

Transportation Emergency: 800-424-9300 (USA &
Canada only) or 703-527-3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Acute Toxicity – Oral: Category 4
Acute Toxicity – Dermal: Category 4
Skin Corrosion/Irritation: Category 1
Eye Damage/Irritation: Category 1
Acute Toxicity – Inhalation: Category 4

GHS LABEL ELEMENTS

Symbol(s):



Signal Word: Danger

Hazard Statements:

H302 – Harmful if swallowed.
H312 – Harmful in contact with skin.
H314 – Causes severe skin burns and eye damage.
H332 – Harmful if inhaled.

Precautionary Statements:

P260 – Do not breathe dust/fume/gas/mist/vapors/spray.
P264 – Wash skin thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P271 – Use only outdoors or in a well-ventilated area.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331+P310 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353+P310+P363 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

P304+340+310 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338+P310 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P321 – Specific treatment: See First Aid section.

P501 – Dispose of contents and container to licensed, permitted incinerator, or other thermal destruction device.

Other Hazards: Not available.

Unknown Acute Toxicity: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS#</u>
Hydrofluorosilicic acid	<10	16961-83-4
Ammonium bifluoride	<20	1341-49-7

COMMENTS: None.

4. FIRST AID MEASURES

Hydrofluorosilicic acid and Ammonium bifluoride are hazardous, even at low concentration. Medical treatment is recommended for all incidents of contact or exposure. Can Cause burns by all exposure routes.

EYES: Immediately flush eye with water for at least 15 minutes while lifting the upper and lower lids. Remove contact lenses if present and easy to do after the first 5 minutes then continue flushing. Get immediate medical attention. Treat in all cases like hydrofluoric acid contact.

SKIN: Immediately wash with large amounts of water for at least 15 minutes. Get immediate medical attention. Remove contaminated clothing and wash it before reuse. If burns or rash develops, seek medical attention. Treat in all cases like hydrofluoric acid contact.

INGESTION: Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician. If conscious, rinse mouth with water then give milk, chewable calcium carbonate tablets or milk of magnesia. Give victim milk or water ONLY if conscious. Keep affected person warm. Treat in all cases like hydrofluoric acid contact.

INHALATION: Immediately remove affected person to fresh air. If not breathing, give artificial respiration. Mouth to mouth is not recommended. If breathing is difficult have qualified personnel administer oxygen. Get immediate medical attention. Treat in all cases like hydrofluoric acid contact.

NOTES TO PHYSICIAN: Contact your Poison Center for the latest advice on treatment. For eye contact: Carefully evaluate for eye damage, exposure to dilute solutions may result in delayed symptoms of ocular damage. For skin contact: Decontamination of the contact area is of primary importance. Symptoms may be delayed for several hours. Specific treatment is controversial with no single treatment clearly superior. Topical calcium gluconate gel or magnesium oxide paste has been successful. Calcium gluconate infiltration may be considered in some cases. Systemic absorption may occur and may require treatment with parenteral calcium salts. For ingestion: Administer fluoride binding substance. Monitor and treat hypocalcaemia and hypomagnesaemia as needed. Observe and evaluate patient for oral and GI burns. For inhalation: Monitor for respiratory distress. Respiratory symptoms may be delayed up to 24 hours.

ADDITIONAL INFORMATION: After emergency actions, call the emergency medical information number on page 1 or a physician immediately. Repeated or prolonged inhalation may damage lungs. Prolonged or repeated exposure may cause, permanent tissue damage, mottling of teeth, damage to bones and fluorosis with symptoms including brittle bones, weight loss, anemia, calcified ligaments and joint stiffness.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Contact may cause immediate severe irritation or burns with redness, pain and swelling.

SKIN: Contact may cause immediate severe irritation or burns to the skin. Burns may not be immediately painful or visible.

SKIN ABSORPTION: Burns may not be immediately painful or visible. Can be absorbed through the skin in toxic amounts.

INGESTION: Swallowing may cause gastrointestinal irritation or burns of the linings of the mouth, throat, and nausea, vomiting and abdominal pain. May cause fluoride poisoning with symptoms including weakness, tremors, shallow breathing, spasms of the hands and feet, convulsions and coma.

INHALATION: May Cause severe respiratory irritation or chemical burns if inhaled. Symptoms may include: burning of nose and throat, constriction of airway, difficulty breathing, shortness of breath, bronchial spasms, chest pain, and pink frothy sputum. Symptoms may be delayed. Mist and vapors may cause respiratory irritation or burns with coughing and labored breathing.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Not applicable.

EXTINGUISHING MEDIA: Use extinguishing media appropriate for surrounding fire.

HAZARDOUS COMBUSTION PRODUCTS: Hydrogen fluoride, and oxides of nitrogen.

FIRE FIGHTING EQUIPMENT: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Wear appropriate protective clothing and equipment to prevent eye and skin contact. Ventilate the area. Keep upwind. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective space clothing. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labeled containers. Do not use metal or glass containers. Liquid spill neutralize with soda ash, sodium bicarbonate, or lime, until acidity is neutralized. Never return spills to original containers for re-use.

LARGE SPILL: Wear appropriate protective clothing and equipment to prevent eye and skin contact. Ventilate the area. Keep upwind. Only trained individuals should attempt to clean up spills. Evacuate spill area. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective space clothing. Dike spill and prevent spill from entering sewers and waterways. Collect into appropriate containers for disposal with an inert absorbent. Do not use metal or glass containers. Stop leak if you can do so without risk. Liquid spill: neutralize with lime, soda ash, or sodium bicarbonate. Prevent entry into waterways, sewers, basements or confined areas. Do not flush to sewer. Do not discharge into lakes, streams, ponds or public waters. Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Not applicable.

HANDLING: Avoid all eyes and skin contact and do not breathe dust, vapor or mist. Wash thoroughly after handling. Use only with adequate ventilation and appropriate protective clothing. Do not get on clothing. Immediately remove contaminated clothing and other items. Wash contaminated clothing before

reuse. Keep from contact with clothing and combustible materials. Keep container closed. Wash thoroughly after handling. Follow all SDS/label precautions even after container is emptied because it may retain product residues.

STORAGE: Store in a tightly closed container in a cool, dry, well-ventilated and dark place away from incompatible materials, including caustics, oxidizers, reducing agents, and other organic materials. Corrosive to metals. Do not contaminate. Keep from freezing. Keep in original containers. Handle containers carefully to prevent damage and spillage. Keep out of reach of children.

ELECTROSTATIC ACCUMULATION HAZARD: Not applicable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

	EXPOSURE LIMITS						
	OSHA PEL		ACGIH TLV		Supplier OEL		
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	
Hydrofluorosilicic acid	TWA	NE ^[1]	2.5	NE	2.5	NE	2.5
	STEL	NE	NE	NE	NE	NE	NE
Ammonium bifluoride	TWA	NE	2.5	NE	2.5	NE	2.5
	STEL	NE	NE	NE	NE	NE	NE

TABLE FOOTNOTES

1. NE=Not established.

The specific identities of one or more components of this product are withheld as a trade secret.

ENGINEERING CONTROLS: Use in a well-ventilated area. For operations where exposures limits are exceeded increased mechanical ventilation such as local exhaust may be required.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear chemical safety goggles and face shield to prevent eye and face contact. Do not wear contact lenses without eye protection.

SKIN: PVC, neoprene or other impervious gloves are recommended to prevent skin contact. Check glove manufacturer's permeation / degradation information.

RESPIRATORY: Avoid breathing mists or vapors. Use only under good ventilation conditions or with respiratory protection. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

PROTECTIVE CLOTHING: Impervious apron, boots and other clothing are recommended if needed to prevent contact or if splashing is possible. A safety shower and an eye wash facility should be available in the immediate work area. If clothing or footwear becomes contaminated with the product, remove it immediately and completely decontaminate it before re-use, or discard it

WORK HYGIENIC PRACTICES: Do not eat or drink in work area. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

OTHER USE PRECAUTIONS: None.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless liquid

PHYSICAL STATE: Liquid.

COLOR: Colorless.

ODOR: Pungent.

ODOR THRESHOLD: No data available.

pH: 1.0-3.0

FREEZING POINT: No data available.

INITIAL BOILING POINT: 104°C (220°F)

FLASHPOINT: None.

EVAPORATION RATE: No data available.

FLAMMABILITY (Solid, Gas): Not applicable, this product is a liquid at room temperature.

FLAMMABLE LIMITS: Not applicable.

VAPOR PRESSURE: No data available.

VAPOR DENSITY: No data available.

RELATIVE DENSITY: 1.03-1.08

SOLUBILITY IN WATER: Complete.

PARTITION COEFFICIENT (Log K_{ow}): No data available.

AUTO-IGNITION TEMPERATURE: Not applicable.

DECOMPOSITION TEMPERATURE: No data available.

VISCOSITY: No data available

PERCENT VOLATILE: Not available.

10. STABILITY AND REACTIVITY

REACTIVITY: Not reactive under normal conditions of use.

CHEMICAL STABILITY: Stable.

POSSIBILITY OF HAZARDOUS REACTIONS: Polymerization will not occur.

CONDITIONS TO AVOID: Temperatures above 108°C (227°F).

INCOMPATIBLE MATERIALS: Avoid strong oxidizers, strong bases, chlorites, organic peroxides, combustible materials, and metals. Reacts with many metals to produce flammable and explosive hydrogen gas. Reacts with bases generating heat. Attacks glass and stoneware. Reactive with many other chemicals. Never mix with other chemicals or cleaning agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen fluoride, ammonia, oxides of nitrogen, silicon oxides, and tetrafluorosilane.

11. TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY: Skin, eyes, inhalation

ACUTE TOXICITY (ATE)

DERMAL LD₅₀: No data available.

ORAL LD₅₀: 500 mg/kg (rat).

INHALATION LC₅₀: 3,497 ppm (rat)

CHRONIC TOXICITY

TARGET ORGANS: No data available.

SENSITIZATION: No data available.

CARCINOGENICITY

IARC: Not listed as a carcinogen.

NTP: Not listed as a carcinogen.

OSHA: Not listed as a carcinogen.

OTHER: ACGIH: Not listed as a carcinogen.

OTHER: Repeated or prolonged inhalation may damage lungs. Prolonged or repeated exposure may cause, permanent tissue damage, mottling of teeth, damage to bones and fluorosis with symptoms including brittle bones, weight loss, anemia, calcified ligaments and joint stiffness.

REPRODUCTIVE EFFECTS: None of the components of the components have been shown to cause reproductive effects or developmental toxicity.

MUTAGENICITY: None of the components of the components have been shown to cause germ cell mutagenicity.

SYNERGISTIC MATERIALS: None known.

POTENTIAL HEALTH EFFECTS

EYES: May cause severe burns to the eyes. Permanent damage and blindness may occur. Burns may not be immediately painful or visible.

SKIN: May cause burns to the skin. Burns may not be immediately painful or visible.

SKIN ABSORPTION: Can be absorbed through the skin in toxic amounts. May be absorbed through the skin resulting in potentially fatal hypocalcaemia.

INGESTION: May be fatal if swallowed. Swallowing a small quantity of this material will result in serious health hazard. May cause burns of the linings of the mouth, throat May cause central nervous system, kidney and cardiovascular (heart rhythm) effects. Respiratory paralysis may cause death. May cause fluoride poisoning Swallowing large amounts may cause potentially fatal hypocalcaemia and hypomagnesaemia.

ASPIRATION HAZARD: There is insufficient data available to classify this product as an aspiration hazard.

INHALATION: This product may be fatal if it is inhaled. Respiratory paralysis may cause death. May cause severe respiratory irritation if inhaled or chemical burns. May cause pulmonary edema.

MEDICAL CONDITIONS AGGRAVATED: Eye, skin, and respiratory conditions.

GENERAL COMMENTS: Refer to Section 2 for additional information on potential health effects.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: No data available.

PERSISTENCE AND DEGRADABILITY: No data available.

BIOACCUMULATIVE POTENTIAL: No data available.

MOBILITY IN SOIL: No data available.

OTHER ADVERSE EFFECTS: No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in accordance with all local, regional, national, provincial, territorial and international regulations

EMPTY CONTAINER: Container remains hazardous when empty if not thoroughly rinsed. Continue to observe all precautions.

RCRA/EPA WASTE INFORMATION: EPA Hazardous Waste Code: U134; Hydrofluoric acid (C,T).

14. TRANSPORTATION INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)****PROPER SHIPPING NAME:** Corrosive Liquids, Toxic, NOS**TECHNICAL NAME:** Hydrofluorosilicic Acid, Ammonium Hydrogen Fluoride**PRIMARY HAZARD CLASS/DIVISION:** 8**UN/NA NUMBER:** UN2922**PACKING GROUP:** III**LABEL:** Corrosive**OTHER SHIPPING INFORMATION:** No data available.**CANADA TRANSPORT OF DANGEROUS GOODS****PROPER SHIPPING NAME:** Corrosive Liquids, Toxic, NOS**PRIMARY HAZARD CLASS/DIVISION:** 8**UN/NA NUMBER:** UN2922**PACKING GROUP:** III**LABEL:** Corrosive**OTHER SHIPPING INFORMATION:** No data available.**AIR (ICAO/IATA)****PROPER SHIPPING NAME:** Corrosive Liquids, Toxic, NOS**PRIMARY HAZARD CLASS/DIVISION:** 8**UN/NA NUMBER:** UN2922**PACKING GROUP:** III**LABEL:** Corrosive**PLACARD:** Consult applicable regulations**IATA NOTE:** Consult applicable regulations on packaging requirements and quantity limitations.

15. REGULATORY INFORMATION**UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****311/312 HAZARD CATEGORIES:****FIRE:** No. **PRESSURE GENERATING:** No. **REACTIVITY:** No. **ACUTE:** Yes.**CHRONIC:** Yes.**313 REPORTABLE INGREDIENTS:**

Ammonium bifluoride is reportable.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**CERCLA RQ:** Ammonium bifluoride has a reportable quantity of 100 lbs.**REPORTABLE SPILL QUANTITY:** \geq 500 lbs.**RCRA STATUS:** See section 13.**MEXICO**

Regulated for transportation.

STATE REGULATIONS:**MASSACHUSETTS**

Contains one or more substances regulated by the Massachusetts Substance List.

NEW JERSEY

Ammonium bifluoride and hydrofluorosilicic acid are classified as workplace hazards.

PENNSYLVANIA

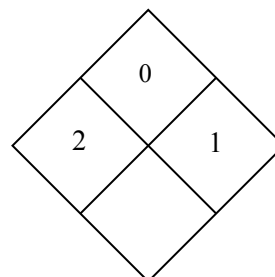
Contains one or more substances on the Pennsylvania Hazardous Substance List.

CALIFORNIA

PROPOSITION 65 STATEMENT: This product contains no ingredients known to the state of California to cause cancer, birth defects, or other reproductive harm.

16. OTHER INFORMATION

HMIS RATINGS	
HEALTH:	2
FLAMMABILITY:	0
REACTIVITY:	1
PERSONAL PROTECTION:	X

NFPA RATINGS

SDS Revision Date: January 29, 2020