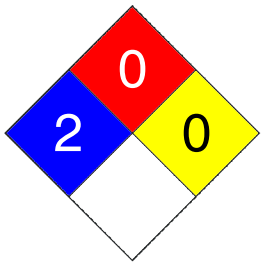
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	**Super Iron Out Multi Surface**
CAS #	Mixture
Product use	Rust Stain Remover
Manufacturer	Iron Out dba Summit Brands 7201 Engle Road Fort Wayne, IN 46804-5875 US Phone: 260-483-2519 Emergency Phone: 1-800-424-9300 (CHEMTREC)

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	*	2
Flammability		0
Physical Hazard		0
Personal Protection		B



2. Hazards Identification

Emergency overview	DANGER -- CORROSIVE Contains a potential reproductive toxin.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	May cause respiratory tract irritation.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Target organs	Eyes. Kidney. Respiratory system. Skin.
Chronic effects	Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.
Signs and symptoms	The product causes burns of eyes, skin and mucous membranes.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Urea, monohydrochloride	506-89-8	3 - 7
Oxalic acid	144-62-7	1 - 5
Boric acid	10043-35-3	0.5 - 1.5
Ammonium bifluoride	1341-49-7	0.1 - 1

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.
Notes to physician	Symptoms may be delayed.

General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Not flammable by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Ammonia. Hydrogen fluoride.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
Storage	Keep out of the reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Ammonium bifluoride	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Boric acid	**ACGIH-TLV** TWA: 2 mg/m3 STEL: 6 mg/m3 **OSHA-PEL** Not established
Oxalic acid	**ACGIH-TLV** TWA: 1 mg/m3 STEL: 2 mg/m3 **OSHA-PEL** TWA: 1 mg/m3
Urea, monohydrochloride	**ACGIH-TLV** Not established **OSHA-PEL** Not established

Engineering controls	Use only under good ventilation conditions or with respiratory protection.
Personal protective equipment	
Eye / face protection	Wear chemical goggles.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Clear.
Color	Colorless
Form	Liquid
Odor	Lime.
Odor threshold	Not available
Physical state	Liquid
pH	0.8 - 1.3
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	Not available
Pour point	Not available
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available

Specific gravity	1.022 @21°C
Octanol/water coefficient	Not available
Auto-ignition temperature	Not available
Percent volatile	Not available

10. Stability and Reactivity

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals. Reacts violently with alkaline material.
Incompatible materials	Acids. Oxidizers. Reducing agents. Caustics.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Ammonia. Hydrogen fluoride when heated to decomposition.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Ammonium bifluoride	Not available
Boric acid	3450 mg/kg mouse
Oxalic acid	Not available
Urea, monohydrochloride	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Ammonium bifluoride	130 mg/kg rat
Boric acid	2660 mg/kg rat
Oxalic acid	375 mg/kg rat
Urea, monohydrochloride	1121 mg/kg rat

Effects of acute exposure

Eye	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	May cause respiratory tract irritation.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Sensitization	Not classified or listed by IARC, NTP, OSHA and ACGIH.
Chronic effects	Not classified or listed by IARC, NTP, OSHA and ACGIH.
Carcinogenicity	Not classified or listed by IARC, NTP, OSHA and ACGIH.

ACGIH - Threshold Limit Values - Carcinogens

Boric acid	10043-35-3	A4 - Not Classifiable as a Human Carcinogen

Mutagenicity	Not classified or listed by IARC, NTP, OSHA and ACGIH.
Reproductive effects	Boric acid may cause developmental changes based on published data, at doses many times in excess of those that could occur through inhalation of dust in occupational settings.
Teratogenicity	Not classified or listed by IARC, NTP, OSHA and ACGIH.
Synergistic Materials	Not available

12. Ecological Information

Ecotoxicity	Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Ecotoxicity - Freshwater Fish Species Data

Boric acid	10043-35-3	72 Hr LC50 Carassius auratus: 1020 mg/L [flow-through]
Oxalic acid	144-62-7	24 Hr LC50 Lepomis macrochirus: 4000 mg/L [static]

Ecotoxicity - Water Flea Data

Boric acid	10043-35-3	48 Hr EC50 Daphnia magna: 115 - 153 mg/L
Oxalic acid	144-62-7	48 Hr EC50 Daphnia magna: 125 - 150 mg/L [Static]

Environmental effects	Not available
Aquatic toxicity	Not available
Persistence / degradability	Not available
Bioaccumulation / accumulation	Not available
Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available
Other adverse effects	Not available

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Review federal, provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

Proper shipping name	Corrosive liquids, n.o.s. (UREA, MONOHYDROCHLORIDE)
Hazard class	8
UN number	UN1760
Packing group	II
Additional information:	
Special provisions	B2, IB2, T11, TP2, TP27
Packaging exceptions	154
ERG number	154

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name	CORROSIVE LIQUID, N.O.S. (UREA, MONOHYDROCHLORIDE)
Hazard class	8
UN number	UN1760
Packing group	II
Additional information:	
Special provisions	16

15. Regulatory Information

Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

Boric acid	10043-35-3	1 %
Oxalic acid	144-62-7	0.1 %

US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes

CERCLA (Superfund) reportable quantity

Ammonium bifluoride: 100.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	Yes
Clean Air Act (CAA)	Not available
Clean Water Act (CWA)	Not available
WHMIS status	Controlled
WHMIS classification	Class D - Division 2A, 2B, Class E - Corrosive Material

WHMIS labeling

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Oxalic acid	144-62-7	Present

U.S. - Massachusetts - Right To Know List

Oxalic acid	144-62-7	Present

U.S. - Minnesota - Hazardous Substance List

Oxalic acid	144-62-7	Present

U.S. - New Jersey - Right to Know Hazardous Substance List

Oxalic acid	144-62-7	sn 1445

U.S. - Pennsylvania - RTK (Right to Know) List

Oxalic acid	144-62-7	Present

U.S. - Rhode Island - Hazardous Substance List

Oxalic acid	144-62-7	Toxic; Flammable

Inventory name

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Prepared by	Dell Tech Laboratories Ltd. (519) 858-5021