SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	**Iron OUT (liquid)**
Other means of identification	Not available
Recommended use	Rust Stain Remover
Recommended restrictions	None known.
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)

2. Hazards Identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Acute toxicity, dermal	Category 4
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements

Signal word	Danger
Hazard statement	May be corrosive to metals. Harmful in contact with skin. Causes severe skin burns and eye damage.
Precautionary statement	
Prevention	Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. Specific treatment (see this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Absorb spillage to prevent material damage.
Storage	Store locked up. Store in corrosive resistant container with a resistant inner liner.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	88% of the mixture consists of component(s) of unknown acute dermal toxicity.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Oxalic acid		144-62-7	5 - 10
1,2-Propanediol		57-55-6	1 - 5

Composition comments US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation	If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor/.
Skin contact	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Eye contact	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/doctor.
Ingestion	If swallowed: Rinse mouth. Do NOT induce vomiting.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Avoid contact with eyes and skin. Wear rubber gloves and chemical splash goggles. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media	Dry chemical. Water spray. Foam. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Firefighters should wear a self-contained breathing apparatus.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen fluoride.
Explosion data	
Sensitivity to mechanical impact	Not available.
Sensitivity to static discharge	Not available.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Should not be released into the environment. Large Spills: Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water . Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and Storage

Precautions for safe handling

DANGER -- CORROSIVE
Use only with adequate ventilation.
Do not taste or swallow. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use good industrial hygiene practices in handling this material. Do not get in eyes, on skin or on clothing. Avoid breathing vapors or mists of this product.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in corrosive resistant container with a resistant inner liner. Store in a closed container away from incompatible materials. Keep only in the original container. Store in a cool, dry place out of direct sunlight.

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Oxalic acid (CAS 144-62-7)	PEL	1 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Oxalic acid (CAS 144-62-7)	STEL	2 mg/m3
	TWA	1 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Oxalic acid (CAS 144-62-7)	STEL	2 mg/m3
	TWA	1 mg/m3

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
1,2-Propanediol (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Rubber gloves. Confirm with a reputable supplier first.

Other

As required by employer code. Rubber apron recommended.

Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

Thermal hazards

Not applicable.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands before breaks and immediately after handling the product. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance	Clear
Physical state	Liquid.
Form	Liquid.
Color	Colorless
Odor	Lime.
Odor threshold	Not available.
pH	< 1
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.

Specific gravity	1.025
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and Reactivity

Reactivity	Reacts violently with alkaline material. This product may react with reducing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Reacts violently with strong alkaline substances. This product may react with reducing agents.
Incompatible materials	Acids. Caustics. Oxidizers. Reducing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen fluoride.

11. Toxicological Information

Routes of exposure	Eye, Skin contact, Skin absorption, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	Causes digestive tract burns.
Inhalation	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns. Harmful in contact with skin.
Eye contact	Causes serious eye damage.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Information on toxicological effects	
Acute toxicity	Harmful in contact with skin.

Components	Species	Test Results
1,2-Propanediol (CAS 57-55-6)		
Acute		
Dermal		
LD50	Rabbit	20800 mg/kg
Inhalation		
LC50	Not available	
Oral		
LD50	Dog	19000 mg/kg
	Guinea pig	184000 mg/kg
	Mouse	23900 mg/kg
	Rabbit	14800 mg/kg

Components	Species	Test Results
	Rat	20000 mg/kg
Oxalic acid (CAS 144-62-7)		
Acute		
Dermal		
LD50	Rabbit	20000 mg/kg
Oral		
LD50	Rat	1080 mg/kg
		375 mg/kg

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Causes serious eye damage.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Not classified or listed by IARC, NTP, OSHA and ACGIH.
Reproductive toxicity	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not available.
Chronic effects	Prolonged inhalation may be harmful.
Further information	Not available.
Name of Toxicologically Synergistic Products	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.

Components		Species	Test Results
1,2-Propanediol (CAS 57-55-6)			
Crustacea	EC50	Daphnia	10000 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	710 mg/l, 96 hours
Oxalic acid (CAS 144-62-7)			
Crustacea	EC50	Daphnia	137.5 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	125 - 150 mg/l, 48 hours

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.

Mobility in soil	No data available.
Mobility in general	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructions	Review federal, state/provincial, and local government requirements prior to disposal. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number	UN1760
Proper shipping name	Corrosive liquids, n.o.s. (Oxalic acid)
Hazard class	8
Packing group	II
Special provisions	B2, IB2, T11, TP2, TP27
Packaging exceptions	154

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN1760
Proper shipping name	CORROSIVE LIQUID, N.O.S. (Oxalic acid)
Hazard class	8
Packing group	II
Special provisions	16

DOT

TDG

15. Regulatory Information

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

Canada WHMIS Ingredient Disclosure: Threshold limits

1,2-Propanediol (CAS 57-55-6)	1 %
Oxalic acid (CAS 144-62-7)	0.1 %

WHMIS status Controlled

WHMIS classification Class E - Corrosive Material

WHMIS labeling

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Oxalic acid (CAS 144-62-7) 1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US CAA Section 111 Volatile Organic Compounds: Listed substance

1,2-Propanediol (CAS 57-55-6) Listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130) Hazardous substance

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

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

US - California Hazardous Substances (Director's): Listed substance

Oxalic acid (CAS 144-62-7) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - Minnesota Haz Subs: Listed substance

1,2-Propanediol (CAS 57-55-6)	Listed.
Oxalic acid (CAS 144-62-7)	Listed.

US - New Jersey RTK - Substances: Listed substance

1,2-Propanediol (CAS 57-55-6)	Listed.
Oxalic acid (CAS 144-62-7)	Listed.

US - Texas Effects Screening Levels: Listed substance

1,2-Propanediol (CAS 57-55-6)	Listed.
Oxalic acid (CAS 144-62-7)	Listed.

US. Massachusetts RTK - Substance List

Oxalic acid (CAS 144-62-7) Listed.

US. Pennsylvania RTK - Hazardous Substances

1,2-Propanediol (CAS 57-55-6)	Listed.
Oxalic acid (CAS 144-62-7)	Listed.

US. Rhode Island RTK

Not regulated.

Inventory status

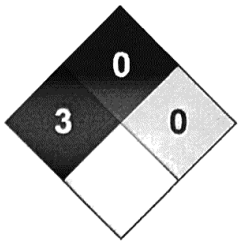
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



Disclaimer

The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

Issue date 16-March-2015

Effective date 01-February-2015

Expiry date 01-February-2018

Further information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

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

Other information Redbook revision # 9, 2/12/14

This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
This SDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.