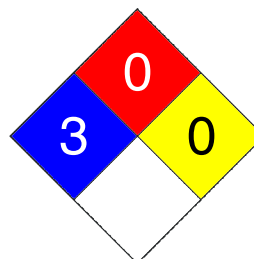


1. Product and Company Identification

Product Name Glisten
CAS # Mixture
Product use Dishwasher cleaner
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	/ 3
Flammability	0
Physical Hazard	0
Personal Protection	C



2. Hazards Identification

Emergency overview WARNING
 This product is severely irritating and may cause chemical burns with prolonged contact.

Potential short term health effects

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Eyes May cause severe irritation or chemical burns.

Skin May cause severe irritation or chemical burns.

Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

Ingestion Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.

Target organs Eyes. Skin. Respiratory system.

Chronic effects Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.

Signs and symptoms The product may cause burns to eyes, skin and mucous membranes.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Citric acid	77-92-9	60 - 100

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 Brush away excess of dry material. Immediately flush with cool water for 15 minutes. 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.

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	Dry chemical. Water spray. Alcohol foam. Carbon dioxide.
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.
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	Do not allow product to enter sewer or waterways.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Avoid dust formation.
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
Citric acid	ACGIH-TLV TWA: 10 mg/m ³ OSHA-PEL TWA: 10 mg/m ³
Engineering controls	Use only under good ventilation conditions or with respiratory protection.
Personal protective equipment	
Eye / face protection	Safety glasses
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	If ventilation is not adequate use dust mask or gas respirators with dust filters.
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	Powder
Color	White.
Form	Powder
Odor	Lemon.
Odor threshold	Not available

Physical state	Solid
pH	2.2 (1%)
Melting point	307.40 - 309.20 °F (153 - 154 °C)
Freezing point	Not available
Boiling point	347.00 °F (175 °C) (Decomposes)
Flash point	Not available
Pour point	Not available
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	8
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	0
Vapor density	Not available
Specific gravity	1.67 @ 20°C
Relative density	1.665 g/cm ³
Octanol/water coefficient	-1.72 At 20 °C
Solubility (H₂O)	Complete
Auto-ignition temperature	1850.00 °F (1010 °C)
Percent volatile	0
Molecular weight	

10. Stability and Reactivity

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	This product is incompatible with nitrates. Oxidizers. Reducing agents. Strong bases.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Citric acid	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Citric acid	5040 mg/kg mouse; 3000 mg/kg rat

Effects of acute exposure

Eye	May cause severe irritation or chemical burns.
Skin	May cause severe irritation or chemical burns.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Not classified or listed by IARC, NTP, OSHA and ACGIH.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Synergistic Materials	Not available

12. Ecological Information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns.	
Ecotoxicity - Freshwater Fish Species Data		
Citric acid	77-92-9	96 Hr LC50 Lepomis macrochirus: 1516 mg/L [static]
Ecotoxicity - Microtox Data		
Citric acid	77-92-9	15 Min EC50 Photobacterium phosphoreum: 14 mg/L
Ecotoxicity - Water Flea Data		
Citric acid	77-92-9	72 Hr EC50 Daphnia magna: 120 mg/L
Environmental effects	Not available	
Aquatic toxicity	Not available	
Persistence / degradability	Not available	
Bioaccumulation / accumulation	Not available	
Partition coefficient	-1.72 At 20 °C	
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)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

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

Citric acid	77-92-9	1 %
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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.

CERCLA/SARA Hazardous Substances - Not applicable.

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes
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CERCLA (Superfund) reportable quantity

Acetaldehyde: 1000.0000

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
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Section 302 extremely hazardous substance	No
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Section 311 hazardous chemical	Yes
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Clean Air Act (CAA) Not available
Clean Water Act (CWA) Not available
WHMIS status Controlled
WHMIS classification 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.

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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Dell Tech Laboratories Ltd. (519) 858-5021