



## Material Safety Data Sheet

# IRON CONTROL

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

### 1. Product and Company Identification

<b>Material name</b>	<b>IRON CONTROL</b>
<b>Patent Number</b>	Not available
<b>Revision date</b>	March-31-2011
<b>Version No.</b>	6
<b>CAS #</b>	77-92-9
<b>Manufacturer information</b>	Clearwater™ International L.L.C. 100 Leetsdale Industrial Drive Leetsdale, PA 15056 US CHEMTREC 1-800-424-9300/703-527-3887
<b>Emergency</b>	CHEMTREC 1-800-424-9300/703-527-3887
<b>Supplier information</b>	Producers Service Corp. 109 South Graham St. Zanesville, OH 43701 US
<b>Supplier emergency telephone number(s)</b>	24hr customer Service 740-454-6253

### 2. Hazards Identification

<b>Emergency overview</b>	WARNING  Causes severe eye irritation. Irritating to eyes, respiratory system and skin. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>OSHA regulatory status</b>	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Eyes</b>	Do not get this material in contact with eyes. Substance causes substantial eye irritation.
<b>Skin</b>	Avoid contact with the skin. Contact may irritate or burn skin.
<b>Inhalation</b>	Do not breathe dust. Irritating to respiratory system.
<b>Ingestion</b>	Do not ingest. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Potential environmental effects</b>	May cause long-term adverse effects in the environment.

### 3. Composition / Information on Ingredients

Components	CAS #	Percent
Citric Acid Anhydrous	Mixture	90 - 100



#### 4. First Aid Measures

##### First aid procedures

<b>Eye contact</b>	Flush eyes immediately with large amounts of water. Get medical attention if irritation develops or persists.
<b>Skin contact</b>	Wash off immediately with plenty of water. Get medical attention if irritation develops or persists.
<b>Inhalation</b>	Move to fresh air. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.
<b>Ingestion</b>	Have victim rinse mouth thoroughly with water. Get medical attention if symptoms occur.
<b>General advice</b>	If you feel unwell, seek medical advice (show the label where possible).

#### 5. Fire Fighting Measures

<b>Flammable properties</b>	Not a fire hazard. The product is not flammable.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Water. Water spray. Foam. Dry chemical. Carbon dioxide (CO2).
<b>Protection of firefighters</b>	
<b>Protective equipment and precautions for firefighters</b>	Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

#### 6. Accidental Release Measures

<b>Personal precautions</b>	Local authorities should be advised if significant spillages cannot be contained. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unnecessary personnel away. Stay upwind. Keep out of low areas.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for containment</b>	Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Should not be released into the environment. Sweep up or gather material and place in appropriate container for disposal. Avoid dust formation. After removal flush contaminated area thoroughly with water.

#### 7. Handling and Storage

<b>Handling</b>	Do not breathe dust from this material. Use only with adequate ventilation. Avoid release to the environment. Handle and open container with care. Wash thoroughly after handling.
<b>Storage</b>	Store in a closed container away from incompatible materials. Use care in handling/storage. Store in accordance with local/regional/national/international regulation. Protect from moisture. Store in corrosive resistant container with a resistant liner.

#### 8. Exposure Controls / Personal Protection

<b>Engineering controls</b>	Ensure adequate ventilation, especially in confined areas. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower nearby.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Wear chemical goggles and face shield.



<b>Skin protection</b>	Wear suitable protective clothing and eye/face protection. Protective gloves.
<b>Respiratory protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Solid.
<b>Color</b>	White
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Solid.
<b>Form</b>	Granular. Solid
<b>pH</b>	2.1, conc: 0.1M (solution)
<b>Melting point</b>	Not available
<b>Freezing point</b>	Not available
<b>Boiling point</b>	Not available
<b>Flash point</b>	Not available
<b>Evaporation rate</b>	Not available
<b>Flammability</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Specific gravity</b>	1.542
<b>Relative density</b>	1.5418 g/cm <sup>3</sup> estimated
<b>Solubility (water)</b>	576 g/L
<b>Partition coefficient (n-octanol/water)</b>	-1.72 at 20 °C
<b>Auto-ignition temperature</b>	1850 °F (1010 °C) estimated
<b>Decomposition temperature</b>	Not available
<b>Molecular weight</b>	192.13 g/mol
<b>Molecular formula</b>	O=C(O)C(O)(CC(=O)O)CC(=O)O

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable at normal conditions.
<b>Conditions to avoid</b>	Exposure to moisture.
<b>Incompatible materials</b>	This product is incompatible with nitrates. Amines. Strong oxidizing agents. Bases

## 11. Toxicological Information

<b>Acute effects</b>	Acute LD50: 3000 mg/kg estimated, Rat, Oral
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<b>Sensitization</b>	Not expected to be hazardous by OSHA criteria.
<b>Chronic effects</b>	Prolonged exposure may cause chronic effects.
<b>Carcinogenicity</b>	Not expected to be hazardous by OSHA criteria.
<b>Neurological effects</b>	Not expected to be hazardous by OSHA criteria.

## 12. Ecological Information

**Ecotoxicity** LC50 1516 mg/L estimated, Fish, 96.00 Hours,  
Components of this product have been identified as having potential environmental concerns.

### Ecotoxicity - Freshwater Fish Species Data

Citric Acid Anhydrous	Mixture	96 Hr LC50 Lepomis macrochirus: 1516 mg/L [static]; 96 Hr LC50 Leuciscus idus: 440 mg/L [static]
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### Ecotoxicity - Microtox Data

Citric Acid Anhydrous	Mixture	15 min EC50 Photobacterium phosphoreum: 14 mg/L
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### Ecotoxicity - Water Flea Data

Citric Acid Anhydrous	Mixture	72 Hr EC50 Daphnia magna: 120 mg/L
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## 13. Disposal Considerations

**Disposal instructions** Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

## 14. Transport Information

### Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

### Canadian Transportation of Dangerous Goods (TDG) Requirements

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

## 15. Regulatory Information

### Labelling

<b>Contains</b>	Citric Acid Anhydrous
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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.

#### FEMA (Flavor and Extract Manufacturers Association) - FEMA Numbers

Citric Acid Anhydrous Mixture 2306

#### U.S. - FDA - Direct Food Additives

Citric Acid Anhydrous Mixture 21 CFR 172.280

#### U.S. - FDA - Food Additives Generally Recognized as Safe (GRAS)

Citric Acid Anhydrous Mixture 21 CFR 184.1033

### Occupational Safety and Health Administration (OSHA)

**29 CFR 1910.1200 hazardous chemical** Yes

### CERCLA (Superfund) reportable quantity

None

### 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

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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)

### 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. - Texas - Effects Screening Levels - Long Term

Citric Acid Anhydrous Mixture 10 µg/m<sup>3</sup> ESL

#### U.S. - Texas - Effects Screening Levels - Short Term

Citric Acid Anhydrous Mixture 100 µg/m<sup>3</sup> ESL



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## 16. Other Information

**HMIS® ratings**

Health: 1  
Flammability: 1  
Physical hazard: 0

**NFPA ratings**

Health: 1  
Flammability: 1  
Instability: 0

**Prepared by**

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**Disclaimer**

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**Issue date**

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**MSDS sections updated**

Product and Company Identification: Product and Company Identification