



CST-C

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: CST-C
Common Name: Citric Acid
SDS Number: 0169
Revision Date: 5/13/2016
Product Use: Water Treatment Compound
Supplier Details: Alliance Group, Inc. 800-648-7339
N114 W18621 Clinton Drive
Germantown, WI 53022

Contact: CHEMTEL
Phone: 1-800-255-3924

2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Physical, Corrosive to Metals, 1
Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 2 A

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **WARNING**

GHS Hazard Pictograms:



GHS Hazard Statements:

H290 - May be corrosive to metals
H315 - Causes skin irritation
H319 - Causes serious eye irritation

GHS Precautionary Statements:

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P234 - Keep only in original container.
P264 - Wash thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+352 - IF ON SKIN: Wash with soap and plenty of water.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P332+313 - If skin irritation occurs: Get medical advice/attention.
P337+313 If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P402+404 - Store in a closed container. Store in secure manner.
P406 - Store in a corrosive resistant container with a resistant inner liner.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

Route of Entry: Eyes; Inhalation; Ingestion; Skin.
Target Organs: Respiratory system; Eyes; Skin; Teeth.

Inhalation: Can cause irritation and inflammation of the respiratory tract. May cause: coughing.
Skin Contact: May cause irritation. Prolonged and repeated exposure may cause: drying, cracking, itching, redness, and burning sensation.
Eye Contact: May cause severe irritation. May cause permanent eye damage. Symptoms may include: redness, burning sensation.

3 COMPOSITION/INFORMATION OF INGREDIENTS

Ingredients:

Substance/Mixture: Mixture

(contains corrosion inhibitor)

| Cas# | % | Chemical Name |
|-----------|------|---------------|
| 77-92-9 | <60% | Citric Acid |
| 7664-93-9 | <5% | Sulfuric acid |

4 FIRST AID MEASURES

Inhalation: If symptoms develop, move victim to fresh air. Give oxygen or artificial respiration if needed. GET IMMEDIATE MEDICAL ATTENTION.

Skin Contact: Promptly flush skin with water for 15 minutes. Remove contaminated clothing immediately. Get immediate medical attention. Do not reuse clothing and shoes until cleaned. Discard leather articles such as shoes and belt. Do not apply oils and ointments unless ordered by a physician.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Get immediate medical attention.

Ingestion: If swallowed: If fully conscious, drink a quart of water. Do NOT induce vomiting. Seek immediate medical attention. If unconscious, take to a hospital or physician. Never induce vomiting or give anything by mouth to an unconscious victim. For spontaneous vomiting, keep head below hips.

5 FIRE FIGHTING MEASURES

Flammability: No data available
Flash Point: No data available
Flash Point Method: No data available
Burning Rate: No data available
Autoignition Temp: No data available.
LEL: No data available
UEL: No data available

Fire Fighting Methods

Evacuate area of unprotected personal. Wear protective clothing including NIOSH Approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire exposed containers and disperse vapors.

Unusual Fire or Explosion Hazards:

No data available

Extinguishing Media

Suitable: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable fire extinguisher: No data available

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions

Evacuate area. Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let products enter drains. Discharge into the environment must be avoided.

Spill: CORROSIVE MATERIAL

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7**HANDLING AND STORAGE**

Handling Precautions: Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Do not puncture or drop containers.
Do not expose containers to open flame, excessive heat, or direct sunlight. Avoid generating mist or aerosol during use.

Storage Requirements: CORROSIVE MATERIAL. Store in cool/dry area. Keep away from sunlight, heat, sparks, and flames. Keep away from incompatible materials. Keep container tightly closed. Do not store in unlabeled or mislabeled containers. Do not freeze. Highly corrosive to most metals with evolution of hydrogen gas. Explosive/flammable concentration of hydrogen gas may accumulate inside metals containers. Elevated temperatures will increase the corrosion rate of most metals.

8**EXPOSURE CONTROLS/PERSONAL PROTECTION**

Engineering Controls: Provide local exhaust ventilation. Maintain adequate ventilation. Avoid creating dust or mist.

Personal Protective Equipment:
Hygiene Measures
 Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Respiratory
 Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.
Eyes and Face
 Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid or airborne material.
Skin
 Prevent contact with this product. Wear gloves and protective clothing depending on conditions of use.
 Protective gloves: gauntlet-type, neoprene, nitrile.

| Component | OSHA PEL | ACGIH TWA/ TLV |
|---------------|-------------------|-------------------------------|
| Citric Acid | No data available | No data available |
| Sulfuric Acid | 1 mg/m3 | 0.2 mg/m3 (thoracic fraction) |

9**PHYSICAL AND CHEMICAL PROPERTIES**

| | | | |
|-------------------------------|--------------------|------------------------------|--------------------|
| Appearance: | Clear. Amber. | Odor: | Mild odor. |
| Physical State: | Liquid | Molecular Formula: | No data available |
| Odor Threshold: | No data available. | Solubility: | Complete |
| Particle Size: | No data available | Softening Point: | No data available |
| Spec Grav./Density: | 1.23 @ 25 C | Percent Volatile: | ~100 |
| Viscosity: | No data available. | Heat Value: | No data available |
| Sat. Vap. Conc.: | No data available | Freezing/Melting Pt.: | ~5 F |
| Boiling Point: | ~219 F | Flash Point: | No data available. |
| Flammability: | No data available. | Octanol: | No data available |
| Partition Coefficient: | No data available | Vapor Density: | <1 |
| Vapor Pressure: | ~16 @ 20 C | VOC: | ~50 (wt%) |
| pH: | <2.0 | Bulk Density: | No data available |
| Evap. Rate: | <1 | Auto-Ignition Temp: | No data available. |
| Molecular weight: | No data available | UFL/LFL: | No data available |
| Decomp Temp: | No data available. | | |

Lower Explosion Limits: No data available.
Upper Explosion Limits: No data available.

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STABILITY AND REACTIVITY

| | |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity: | No data available |
| Chemical Stability: | Product is stable under normal conditions. |
| Conditions to Avoid: | Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Contact with organic material may cause fire and explosions. Contact with water may cause violent reaction with evolution of heat. To dilute: Add products slowly to lukewarm water, not water to product. |
| Materials to Avoid: | Metals. Water. Alkalies. Strong Oxidizing Agents. Reducing agents. Carbonates. Cyanides. Sulfides. Carbides. Chlorates. Fulminates. Nitrates. Powdered metals. Organic materials. Combustible materials. Nitrogen compounds. Picrates. Bases. Halogens. Alkali metals, and many other reactive substances. |
| Hazardous Decomposition: | May liberate carbon monoxide or carbon dioxide. |
| Hazardous Polymerization: | Will not occur under normal conditions. |

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TOXICOLOGICAL INFORMATION

Toxicity Data:

Chronic Effects: No data available

Carcinogenicity:

This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

Mutagenicity: No data available

Teratogenicity: No data available

Fertility Effects: No data available

| Component | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------|------------------|--------------------|--------------------------------|
| Citric Acid | Rat: 3000 mg/kg | Rat: >2000mg/kg | No data available |
| Sulfuric Acid | Rat: 2140 mg/kg | No data available | Rat: 510 mg/m ³ -2H |

Acute Toxicity Estimate (ATE):

Inhalation Vapor: No data available

Inhalation Dust/Mist: 50.3%

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ECOLOGICAL INFORMATION

CITRIC ACID [<60%]

Toxicity to fish mortality LC50 - *Leuciscus idus melanotus* - 440 mg/l - 48 h.
(OECD Test Guideline 203)

Toxicity to daphnia and static test - *Daphnia magna* (Water flea) - 1,535 mg/l - 24 h.

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Other adverse effects: no data available

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DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind, or expose empty containers to heat, flame, sparks or other sources of ignition.

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TRANSPORT INFORMATION

Not DOT regulated as a hazardous product.

FEDERAL REGULATIONS

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category:

Immediate(Acute) Health Hazard: YES

Delayed (Chronic) Health Hazard: YES

Fire Hazard: NO

Sudden Release of Pressure Hazard:NO

Reactive Hazard: NO

SARA Section 302/304/313/HAP:

Component CERCLA RQ (LBS) SARA RQ(LBS) SARA TPQ(LBS) SARA SEC 313 US EPA HAP

No components found.

STATE REGULATIONS

California- The following components are listed under Prop 65: No data.

Wisconsin- The following components are listed as a Wisconsin HAP: Sulfuric Acid

HMIS III: Health = 2(Chronic), Fire = 0, Physical Hazard = 0

| HMIS | | |
|---------------------|-------------------------------------|---|
| HEALTH | <input checked="" type="checkbox"/> | 2 |
| FLAMMABILITY | | 0 |
| PHYSICAL HAZARD | | 0 |
| PERSONAL PROTECTION | <input type="checkbox"/> | |

Publication Date: 5/13/16

Prepared By: T Hartmann

Reason for Revision: GHS Updated information provided

This information is given in good faith and based on our current knowledge of the product.

Disclaimer:

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