

MATERIAL SAFETY DATA SHEET

C.S.S

Date Revised: 07-14-2004

SECTION 1 – MATERIAL AND MANUFACTURER IDENTIFICATION

Product Identifier: CSS
Product Use: Color stabilizer and souring agent.

MANUFACTURER

CTI (Chemical Technologies International Inc.)

PO BOX 968

Rancho Cordova, CA 95741

Phone: (916) 638-1315 Fax: (916) 638-0712

Emergency Assistance Calls: Chemtrec (800) 424-9300 (U.S.A.) 24hrs.

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

| <u>COMPONENT</u> | <u>CAS #</u> |
|---|--------------|
| <u>1.</u> 2-Hydroxy-1,2,3-propanetricarboxylic acid | 5949-29-1 |
| <u>2.</u> SULFAMIC ACID | 5329-14-6 |

(SEE SECTION 8 FOR EXPOSURE GUIDELINES)

SECTION 3 – Hazards Identification

Emergency Overview

Clear liquid with light acidic odor.

Irritating to respiratory and digestive tract, acute nervous system, eyes and skin, harmful if swallowed.

Potential Health Effects

Routes of entry: (skin: yes) (inhalation: yes) (ingestion: yes) (eye: yes)

Inhalation:

Excessive inhalation may cause irritation of the respiratory tract.

Eye Contact:

Excessive exposure may irritate eyes

Skin Contact:

Direct exposure may cause skin irritation, drying, chapping.

Ingestion:

If swallowed can cause GI irritation.

Chronic effects: Not established.

MATERIAL SAFETY DATA SHEET

SECTION 4 – FIRST AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If breathing stops administer artificial respiration. Get medical attention immediately.

Eye Contact: Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. Get medical attention.

Skin Contact: Flush thoroughly with cool water while removing any contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation persists after washing.

Ingestion: Get medical attention immediately. Dilute by immediately drinking milk or water if directed by your medical advisor.

SECTION 5 – Fire Fighting Measures

Flashpoint: N/A

Flammable Limits: Not Available

Auto ignition Temperature: Not Available

General Hazard:

During a fire smoke may contain the original material in addition to toxic and or irritating compounds. May emit oxides of sulfur and nitrogen and fumes of ammonia.

Fire Fighting Instructions:

Use dry chemical, CO₂, foam, or water spray.

Fire fighting equipment:

Fire fighters should wear a self contained, positive pressure breathing apparatus and full protective clothing (NICS/MSHA APPROVED).

Hazardous combustion products:

May release sulfur oxides and ammonia gas.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Small Spills: Wipe or mop up and dispose of in DOT approved waste container.

Large Spills: Contain by diking with soil or other non-combustible absorbent material, then dispose into DOT approved waste container. Comply with all applicable governmental regulations on spill reporting, handling and disposal of waste.

Contain all spills or leaks to prevent discharge into the environment. All spills or releases should be reported to the appropriate local, state and federal agencies.

SECTION 7 – PRECAUTIONS FOR SAFE HANDLING AND STORAGE

The manufacturer and seller warrants that this product conforms to its standard specifications when used according to directions. As the conditions of method of its use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for use of this product. Information contained herein is believed to be true but all statements and suggestions are made without any warranty, expressed or implied, regarding accuracy of the information. The hazards connected with the use of this material and the results to be obtained from the use thereof.

* For use by professionals ONLY.

* Avoid breathing vapors of this product.

MSDS Product: CSS

Page 2 of 5, Revised Date: 07-14-2004

MATERIAL SAFETY DATA SHEET

- * Always ensure good ventilation of surroundings during use of this chemical. Do not use this chemical in a poorly ventilated area.
- * Always keep container tightly closed and properly labels.
- * Avoid contact with skin, eyes or clothing.
- * Wash thoroughly after handling
- * Loosen closures cautiously.

Storage temperature: store in cool dry place

Storage pressure: Atmospheric

Avoid excessive heat. Avoid storage with oxidizing or reducing agents or caustic materials.

SECTION 8 – EXPOSURE / PERSONAL PROTECTION

| COMPONENT # (Refer to section 2 for component #) | EXPOSURE LIMITS | | | HAZARD |
|---|-----------------|--------------|----------------|--------|
| | OSHA PEL | ACGIH TLV | OTHER LIMIT | |
| 1 | NOT EST | NOT EST | NOT EST | |
| 2 | NOT EST | NOT EST | NOT EST | |

Respiratory: These precautions are not usually necessary in adequately ventilated areas. Wear NIOSH/MSHA approved respirator when ventilation is not adequate. A NIOSH /MSHA –approved air purifying respirator with an organic vapor cartridge or canister may be advisable under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure, air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Ventilation: Always assure adequate ventilation.

Eye Protection: Wear safety goggles to protect against contact when appropriate.

Skin: Wear protective clothing to minimize skin contact. Wash skin after use. Wash contaminated clothing and dry before reuse.

Other

One should always use chemicals with an awareness of the potential hazard of the effect on the human system. To minimize employee exposure to all chemicals, including this product, use good industrial hygiene practices.

SECTION 9 – Physical and Chemical properties

Clear liquid with light acidic odor.

PH: 3.0

Vapor pressure: not available

Vapor density: not available

Boiling point: 100C

Freezing/Melting point: N/A

Solubility in water: soluble

Density:

Flammability: not established

Particle size: N/A

Evaporation rate: not available

Viscosity:

MATERIAL SAFETY DATA SHEET

SECTION 10 – Stability and Reactivity

Chemical Stability: Stable under ambient temperature and atmospheric pressure. Stable under recommended storage and handling conditions.

Conditions to avoid: Keep away from heat or excessive pressure.

Incompatibility with other materials: Some components of this mixture are not compatible with chlorine, potassium chlorate, nitric acid, metal sulfides, cyanides, sulfides, chlorides, hypochlorous acid or hypochlorites and some metals.

Hazardous decomposition products: Thermal decomposition of this mixture may include toxic and corrosive fumes of ammonia and toxic oxides of nitrogen and sulfur

Hazardous polymerization: Major components of this mixture show no hazardous polymerization.

Section 11- Toxicological Information

- 1 Toxicological information not available on this mixture.

Section 12- Ecological Information

Ecological information not established on this mixture. Ecological information on components within this mixture is given by component number as listed in section 2.

Component # Information

- | | |
|---|---------------|
| 1 | Not Published |
| 2 | Not Published |

Section 13- Disposal practices

Dispose of all waste, empty bottles and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

Do not dump into storm drains, sanitary sewers or any body of water. All disposal methods must be in compliance with all federal, State/ Provincial and local laws and regulations. Regulations may vary in different locations.

Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. The vendor has no control over the management practices or the processes by which the party who handles or uses this material. The information presented here pertains only to the product as shipped in its intended condition and recommended usage.

MATERIAL SAFETY DATA SHEET

Section 14- Transport information

Shipping Instructions as shipped are: ORMD/LTD QTY Exemptions Used 173.154 LTD QTY & ORM-D
Consult 49 CFR to assure compliance with all applicable federal, state/provincial and local laws and regulations that may apply to you.

Section 15- Regulatory Information

US Federal Regulations:

OSHA standards require that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, MSDS sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this material safety data sheet (MSDS) available to your employees and those who handle or consume the product.

To aid our customers in complying with regulatory requirements regulatory information for components of this product are indicated below.

- 1 This mixture has no established regulatory information

Section 16- Other Information

All information appearing herein is based upon data obtained from the manufacturer and /or recognized technical sources of each individual component. While the information is believed to be accurate, CTI makes no representations as to its accuracy or sufficiency. Conditions of use are beyond CTI's control and therefore users are responsible to verify this data under their own operating conditions to determine whether this product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance on information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

Legend:

References: