

# MATERIAL SAFETY DATA SHEET

For R&D use only. Not for drug, household or other uses.

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## Composition/Information on Ingredient

**Cas:**

52-89-1

**Code:**

M

**RTECS:**

HA2275000

**Code:**

M

**Name:**

L-CYSTEINE HYDROCHLORIDE

**Other REC Limits:**

N/K

**OSHA PEL:**

N/K

**Code:**

M

**OSHA STEL:****Code:****ACGIH TLV:**

N/K

**Code:**

M

**ACGIH STEL:**

N/P

**Code:**

## Control Measures

**Respiratory Protection:**

SELF-CONTAINED BREATHING APPARATUS FOR LARGE SPILLS.

**Ventilation:**

LOCAL EXHAUST/MECHANICAL

**Protective Gloves:**

RUBBER

**Eye Protection:**

SAFETY GLASSES

**Other Protective Equipment:**

Equipment APPROVED WORK CLOTHES

**Work Hygienic Practices:**

DON'T SMOKE, DRINK OR EAT IN WORK AREA. WASH CONTAMINATED CLOTHING BEFORE WEARING AGAIN.

**Supplemental Safety and Health:**

N/K

## Health Hazards Data

**LD50/LC50/Mixture:**

ORAL-RAT LD50 = 4220 MG/KG

**Route Of Entry Inds - Inhalation:**

YES

**Skin:**

NO

**Ingestion:**

YES

**Carcinogenicity Inds - NTP:**

NO

**IARC:**

NO

**OSHA:**

NO

**Health Hazards Acute And Chronic:**

INGESTION: ABSORPTION THROUGH SKIN BREAKS. INGESTION: MAY CAUSE BLOOD DISORDERS, BONE NECROSIS, LEUKEMIA & ADVERSE REPRODUCTIVE EFFECTS. EYES: IRRITATION. REFER TO PHYSICIAN ANY SUSPICION OF INFECTION DUE TO EXPOSURE TO PATHOGENS.

**Explanation Of Carcinogenicity:**

NONE

**Signs And Symptoms Of Overexposure:**

3 INGESTION: MAY CAUSE BLOOD DISORDERS, BONE NECROSIS, LEUKEMIA & ADVERSE REPRODUCTIVE EFFECTS. PERMISSABLE EXPOSURE LIMIT FOR PREGNANT WOMEN IS ONE-TENTH THAT OF THE NORMAL OCCUPATIONAL CEILING--CONTROL ACCORDINGLY.

**Medical Cond Aggravated By Exposure:**

BLOOD DISORDERS

**First Aid:**

INGESTION: DILUTE BY GIVING PLENTY OF WATER TO DRINK. INDUCE VOMITING. EYES/SKIN: WASH WELL W/PLENTY OF WATER FOR AT LEAST 15 MINUTES & GET MED ATT IF SYMPTOMS PERSIST. INHALATION: REMOVE FROM EXPOSURE. GIVE ARTIFICIAL RESPIRATION IF BREATHING HAS SPED & CALL PHYSICIAN.

**Spill Release Procedures:**

WEARING PROPER PROTECTIVE EQUIPMENT, FLOOD AREA W/DISINFECTANT IF EXPOSURE TO PATHOGENIC ORGANISMS IS SUSPECTED. USING DISPOSABLE GLOVES COLLECT/AUTOCLAVE ALL BROKEN GLASS & CONTAMINATED MATERIALS. WASH AREA WELL W/HOT, SOAPY WATER. RINSE/DRY.

**Neutralizing Agent:**

N/K

**Waste Disposal Methods:**

AUTOCLAVE ALL MATERIALS SUSPECTED OF CONTAMINATION W/PATHOGENS. CONTENTS OF VIALS MAY BE THEN POURED DOWN SEWER WHILE FLUSHED W/PLENTY OF WATER. TRANSFER AUTOCLAVED VIALS TO AUTHORIZED RECIPIENT IN MANUFACTURER APPROVED BY AEC FOR LANDFILL.

**Handling And Storage Precautions:**

SECURE STORAGE AGAINST UNAUTHORIZED REMOVAL OF RADIOACTIVE SUBSTANCE. AVOID BREATHING VAPOR FROM EXPOSED VIALS. PROTECT BROKEN SKIN FROM EXPOSURE.

**Other Precautions:**

DON'T SMOKE, DRINK OR EAT IN WORK AREA. WASH HANDS WELL AFTER USE. WASH CONTAMINATED CLOTHING BEFORE WEARING AGAIN. FOR INVITRO DIAGNOSTIC ONLY. NOT FOR HUMAN OR ANIMAL USE.

## Fire and Explosion Hazard Information

**Flash Point Method:**

N/P

**Flash Point:****Flash Point Text:**

NON-COMBUSTIBLE

**Autoignition Temp:****Autoignition Temp Text:**

N/A

**Lower Limits:**

N/R

**Upper Limits:**

N/R

**Extinguishing Media:**

WHATEVER MEDIUM IS SUITABLE FOR USE AGAINST SUPPORTING FIRE.

**Fire Fighting Procedures:**

WEAR SELF-CONTAINED BREATHING APPARATUS (NIOSH APPROVED).

**Unusual Fire/Explosion Hazard:**

HAZARDOUS PRODUCTS OF COMBUSTION INCLUDE CORROSIVE HYDROGEN CHLORIDE/TOXIC OXIDES OF SULFUR & NITROGEN AS WELL AS CARCINOGENIC OXIDES OF RADIOACTIVE CARBON.

## Physical/Chemical Properties

**HCC:****NRC/State Lic No:****Net Prop WT For Ammo:****Boiling Point:****B.P. Text:**

AS WATER

AS WATER

**Melt/Freeze Pt:**

N/K

**Decomp Temp:**

N/K

**Decomp Text:**

N/K

**Vapor Pres:**

AS WATER

**Vapor Density:**

AS WATER

**Volatile Org Content %:****Spec Gravity:**

AS WATER

**VOC Pounds/Gallon:****PH:**

N/P

**VOC Grams/Liter:****Viscosity:**

N/P

**Evaporation Rate & Reference:**

AS WATER

**Miscibility:**

MISCIBLE

**Appearance and Odor:**

TRANSPARENT LIQUIDS

**Percent Volatiles by Volume:**

97%

**Corrosion Rate:**

N/K

**Conditions To Avoid Polymerization:**

N/K

**Reactivity Data****Stability Indicator:**

YES

**Stability Condition To Avoid:**

EXCESSIVE HEAT

**Materials To Avoid:**

N/K

**Strong Oxidants/Decomposition Products:**

STRONG OXIDANTS

**Strong Acids:**

STRONG ACIDS

**Hazardous Polymerization Indicator:**

NO 5

**Conditions To Avoid Polymerization:**

N/K

**Toxicological Information****Information:**

N/P

**MSDS Transport Information****Information:**

N/P

**Regulatory Information****Sara Title III Information:**

N/P

**Federal Regulatory Information:**

N/P

**State Regulatory Information:**

N/P

**Other Information:**

N/P

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