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THE WORLD'S FOREMOST MANUFACTURER OF RESEARCH  
BIOCHEMICALS AND DIAGNOSTIC REAGENTS

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ACCOUNTS PAYABLE  
PO BOX 296  
WHITWATER WI 53190-0296

DATE 12/27/95  
CUST#: 2-097-94804  
PO#: 0H4757

M A T E R I A L S A F E T Y D A T A S H E E T PAGE 1

THIS MSDS IS FOR A COMPONENT OF CATALOG #: LAA-21

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: C8755  
NAME: L-CYSTEINE SIGMA GRADE CRYSTALLINE

SECTION 2. COMPOSITION/ INFORMATION ON INGREDIENTS

CAS #: 56-89-3  
MF: C6H12N2O4S2  
EC NO: 200-296-3

SYNONYMS

CYSTEINE DISULFIDE \* CYSTIN \* CYSTINE \* (-)-CYSTINE \* L-CYSTEINE (9CI)  
\* CYSTINE ACID \* DICYSTEINE \* BETA,BETA'-DITHIODIALANINE \* OXIDIZED L-CYSTEINE \*

SECTION 3. HAZARDS IDENTIFICATION

DATA NOT AVAILABLE

SECTION 4. FIRST-AID MEASURES

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.  
CALL A PHYSICIAN.  
IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.  
IF INHALED, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, CALL A PHYSICIAN.  
IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

WATER SPRAY.  
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

SECTION 6. ACCIDENTAL RELEASE MEASURES

WEAR PROTECTIVE EQUIPMENT.  
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.  
AVOID RAISING DUST.

CONTINUED ON NEXT PAGE

BRANCH OFFICES AT:

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MATERIAL SAFETY DATA SHEET PAGE 2

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NAME: L-CYSTINE SIGMA GRADE CRYSTALLINE

VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - HANDLING AND STORAGE - - - - -

REFER TO SECTION 8.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION - - - - -

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
MECHANICAL EXHAUST.
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

APPEARANCE AND ODOR
WHITE POWDER

PHYSICAL PROPERTIES

MELTING POINT: >240 C (DEC)

SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -

STABILITY
STABLE.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:
CARBON MONOXIDE, CARBON DIOXIDE
NITROGEN OXIDES
SULFUR OXIDES

HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.
MAY CAUSE IRRITATION.
THE TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY
INVESTIGATED.

RTECS #: HA2690000

CYSTINE, L-
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -

DATA NOT YET AVAILABLE.

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Table listing regional offices for SIGMA-ALDRICH in various countries including Germany, Spain, Italy, Australia, Brazil, Belgium, Switzerland, Mexico, India, and South Korea.



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SECTION 13. DISPOSAL CONSIDERATIONS

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A
CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. TRANSPORT INFORMATION

CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. REGULATORY INFORMATION

REVIEWS, STANDARDS, AND REGULATIONS

DEL=MAK
NOHS 1974: HZD 83262; NIS 2; TNF 138; NOS 9; TNE 6186
NDES 1983: HZD 83262; NIS 5; TNF 692; NOS 17; TNE 15248; TFE 13345
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

SECTION 16. OTHER INFORMATION

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