MATERIAL SAFETY DATA SHEET  PAGE 1

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

SECTION 1. - - - - - - - CHEMICAL IDENTIFICATION - - - - -

CATALOG #: L3000
NAME: L-LEUCINE

SECTION 2. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 61-90-5
MF: C6H13NO2
EC NO: 200-522-0
SYNONYMS
ALPHA-AMINOISOGLUTARIC ACID * 2-AMINO-4-METHYL-PENTANODIC ACID * ALPHA-AMINO-GAMMA-METHYL-VALERIC ACID * LEUCIN (GERMAN) * LEUCINE * L-LEUCINE * NORMALINE, 4-METHYL- * VALERIC ACID, 2-AMINO-4-METHYL-

SECTION 3. - - - - - - - HAZARDS IDENTIFICATION - - - - - - -

LABEL PRECAUTIONARY STATEMENTS
HARMFUL
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
POSSIBLE RISK OF IRREVERSIBLE EFFECTS.
POTENTIAL CARCINOGEN.
WEAR SUITABLE PROTECTIVE CLOTHING.

SECTION 4. - - - - - FIRST-AID MEASURES - - - - - - - - - - -

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN. DISCARD CONTAMINATED CLOTHING AND SHOES.

SECTION 5. - - - - - - FIRE FIGHTING MEASURES - - - - - - - - -

EXTINGUISHING MEDIA
WATER, SPRAY
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM
SPECIAL FIREFIGHTING PROCEDURES
NEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSION HAZARDS
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

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THIS MSDS IS FOR A COMPONENT OF CATALOG #: LAA-21
CATALOG #: 13000
NAME: L-LEUCINE

SECTION 6. --- ACCIDENTAL RELEASE MEASURES---

EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
WEAR DISPOSABLE COVERALLS AND DISCARD THEM AFTER USE.
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
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.
SAFETY SHOWER AND EYE BATH.
USE ONLY IN A CHEMICAL FUMES HOOD.
DO NOT BREATH DUST.
AVOID ALL CONTACT.
WASH THOROUGHLY AFTER HANDLING.
POSSIBLE CARRIAGE.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

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

APPEARANCE AND ODOR
WHITE POWDER

PHYSICAL PROPERTIES
MELTING POINT: >300 °C

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

INCOMPATIBILITIES
STRONG OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
TOXIC FUMES OF: CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES

SECTION 11. --- TOXICOLOGICAL INFORMATION---

ACUTE EFFECTS
HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.
MAY CAUSE IRRITATION.

CHRONIC EFFECTS

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MATERIAL SAFETY DATA SHEET  

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

CATALOG #: L3000 
NAME: L-LEUCINE 

POSSIBLE CARCINOGEN, 
THE LEVOROTATORY (L) FORMS OF LEUCINE, ISOLEUCINE AND VALINE HAVE BEEN 
FOUND TO HAVE TUMOR-PROMOTING ACTIVITY FOR BLADDER CARCINOMAS. 
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND 
toxicological properties have not been thoroughly investigated. 

RTCS #: 0128750000 
LEUCINE, L- 

TOXICITY DATA 
IPR-RAT LD50:5379 MG/KG 

TARGET ORGAN DATA 
EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY) 
EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY) 
SPECIFIC DEVELOPMENTAL ABNORMALITIES (CENTRAL NERVOUS SYSTEM) 
SPECIFIC DEVELOPMENTAL ABNORMALITIES (EYE, EAR) 
SPECIFIC DEVELOPMENTAL ABNORMALITIES (CRANIOFACIAL) 
SPECIFIC DEVELOPMENTAL ABNORMALITIES (BODY WALL) 
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM) 
SPECIFIC DEVELOPMENTAL ABNORMALITIES (URGENITAL SYSTEM) 
SPECIFIC DEVELOPMENTAL ABNORMALITIES (OTHER DEVELOPMENTAL ABNORMALITIES) 

ONLY SELECTED REGISTRY OF CHEMICAL SUBSTANCES 
(RTCS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTCS FOR 
COMPLETE INFORMATION. 

SECTION 12. ECOLOGICAL INFORMATION 
DATA NOT YET AVAILABLE. 

SECTION 13. DISPOSAL CONSIDERATIONS 
DILUTE 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 TRANSPORT INFORMATION. 

SECTION 15. REGULATORY INFORMATION 

EUROPEAN INFORMATION 
HARMFUL R 20/21/22 
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. 
S 40 
POSSIBLE RISK OF IRREVERSIBLE EFFECTS. 
S 36 
WEAR SUITABLE PROTECTIVE CLOTHING. 

REVIEWS, STANDARDS, AND REGULATIONS 

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MATERIAL SAFETY DATA SHEET

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

CATALOG #: LAA-21
NAME: L-LECINE

JELMAK
JEL-RUSSIA: STEL 5 MG/M3 JAN 93
NISH 1974: H2O 81.018; NOS 5; TNE 75;
NOS 1983: H2O 81.018; NOS 4; TNE 1937; NOS 18; THE 2179; THE 16153
EPA TSCA SECTION 8 (E) CHEMICAL INVENTORY

SECTION 16. OTHER INFORMATION

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