

DL-ALANINE

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MATERIAL SAFETY DATA SHEET

FISHER SCIENTIFIC
CHEMICAL DIVISION
1 REAGENT LANE
FAIR LAWN NJ 07410
(201) 796-7100

EMERGENCY CONTACTS:
GASTON L. PILLORI: (201) 796-7100
AFTER BUSINESS HOURS; HOLIDAYS:
(201) 796-7523
CHEMTREC ASSISTANCE: (800) 429-9300

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SUBSTANCE IDENTIFICATION

CAS-NUMBER 302-72-7

SUBSTANCE: ***DL-ALANINE***

TRADE NAMES/SYNONYMS:
ALANINE; DL-2-AMINOPROPANOIC ACID; DL-ALPHA-AMINOPROPIONIC ACID;
ALPHA ALANINE; ALPHA-AMINOPROPIONIC ACID; A-381;

CHEMICAL FAMILY:
AMINE, ALIPHATIC

CARBOXYLIC ACID, ALIPHATIC

MOLECULAR FORMULA: C3-H7-O2-N

MOLECULAR WEIGHT: 89.09

CERCLA RATINGS (SCALE 0-3): HEALTH=0 FIRE=0 REACTIVITY=0 PERSISTENCE=0
NFPA RATINGS (SCALE 0-4): HEALTH=0 FIRE=0 REACTIVITY=0

COMPONENTS AND CONTAMINANTS

COMPONENT: ALANINE

PERCENT: 100

OTHER CONTAMINANTS: NONE

EXPOSURE LIMITS:
NO OCCUPATIONAL EXPOSURE LIMITS ESTABLISHED BY OSHA, ACGIH, OR NIOSH.

PHYSICAL DATA

DESCRIPTION: WHITE CRYSTALLINE POWDER BOILING POINT: 508 F (264 C) DECOM.

MELTING POINT: 653 F (295 C) SUBL SPECIFIC GRAVITY: 1.4

SOLUBILITY IN WATER: 167%

SOLVENT SOLUBILITY: ALCOHOL, INSOLUBLE IN ETHER

FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION HAZARD:
NEGLECTIBLE FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME.

FLASH POINT: NON-FLAMMABLE

FIREFIGHTING MEDIA:
DRY CHEMICAL, CARBON DIOXIDE, HALON, WATER SPRAY OR STANDARD FOAM
(1987 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.4).

FOR LARGER FIRES, USE WATER SPRAY, FOG OR STANDARD FOAM
(1987 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.4).

FIREFIGHTING:
NO ACUTE HAZARD. MOVE CONTAINER FROM FIRE AREA IF POSSIBLE. AVOID BREATHING VAPORS OR DUSTS; KEEP UPWIND.

TOXICITY

CARCINOGEN STATUS: NONE.
ALANINE IS CONSIDERED TO HAVE A RELATIVELY LOW LEVEL OF TOXICITY.

HEALTH EFFECTS AND FIRST AID

INHALATION:
D,L-ALANINE:
ACUTE EXPOSURE- NO DATA AVAILABLE.

CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- REMOVE FROM EXPOSURE AREA TO FRESH AIR IMMEDIATELY. IF BREATHING

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HAS STOPPED, PERFORM ARTIFICIAL RESPIRATION. KEEP PERSON WARM AND AT REST. TREAT SYMPTOMATICALLY AND SUPPORTIVELY. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:

D,L-ALANINE:

IRRITANT.

ACUTE EXPOSURE- CONTACT MAY CAUSE IRRITATION.

CHRONIC EXPOSURE- REPEATED OR PROLONGED CONTACT MAY CAUSE DERMATITIS.

FIRST AID- REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH AFFECTED AREA WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT:

D,L-ALANINE:

IRRITANT.

ACUTE EXPOSURE- CONTACT MAY CAUSE IRRITATION AND REDNESS.

CHRONIC EXPOSURE- REPEATED OR PROLONGED CONTACT MAY CAUSE CONJUNCTIVITIS.

FIRST AID- WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE. OCCASIONALLY LIFTING UPPER AND LOWER LIDS, UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:

D,L-ALANINE:

ACUTE EXPOSURE- NO DATA AVAILABLE.

CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- GIVE LARGE QUANTITIES OF WATER AND INDUCE VOMITING. DO NOT MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK ANYTHING. GET MEDICAL ATTENTION.

ANTIDOTE:

NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

REACTIVITY

REACTIVITY:

STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.

INCOMPATIBILITIES:

NONE KNOWN.

DECOMPOSITION:

THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE TOXIC OXIDES OF NITROGEN.

POLYMERIZATION:

HAZARDOUS POLYMERIZATION HAS NOT BEEN REPORTED TO OCCUR UNDER NORMAL TEMPERATURES AND PRESSURES.

SPILL AND LEAK PROCEDURES

OCCUPATIONAL SPILL:

NO SPECIAL PRECAUTIONS INDICATED.

PROTECTIVE EQUIPMENT

VENTILATION:

PROVIDE LOCAL EXHAUST OR GENERAL DILUTION VENTILATION SYSTEM.

RESPIRATOR:

**HIGH LEVELS- SUPPLIED-AIR RESPIRATOR.
SELF-CONTAINED BREATHING APPARATUS.**

FIREFIGHTING-

**SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE
OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.**

CLOTHING:

PROTECTIVE CLOTHING NOT REQUIRED. AVOID REPEATED OR PROLONGED CONTACT WITH THIS SUBSTANCE.

GLOVES:

EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE GLOVES TO PREVENT CONTACT WITH THIS SUBSTANCE.

EYE PROTECTION:

**EMPLOYEE MUST WEAR SPLASH-PROOF OR DUST-RESISTANT SAFETY GOGGLES AND A
FACESHIELD TO PREVENT CONTACT WITH THIS SUBSTANCE. CONTACT LENSES SHOULD NOT
BE WORN.**

EMERGENCY WASH FACILITIES:

**WHERE THERE IS ANY POSSIBILITY THAT AN EMPLOYEE'S EYES AND/OR SKIN MAY BE
EXPOSED TO THIS SUBSTANCE, THE EMPLOYER SHOULD PROVIDE AN EYE WASH FOUNTAIN
AND QUICK DRENCH SHOWER WITHIN THE IMMEDIATE WORK AREA FOR EMERGENCY USE.**

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CREATION DATE: 12/27/84

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REVISION DATE: 10/12/88

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