SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	L-LEUCINE
Other identification (Chemical name, Commercial name, Synonymous)	(S)-2-AMINO-4-METHYLPENTANOIC ACID; 2-AMINO-4-METHYLPENTANOIC ACID; ALPHA-AMINO-GAMMA-METHYLVALERIC ACID; ALPHA-AMINOISOCAPROIC ACID; NORVALINE, 4-METHYL-; VALERIC ACID, I2-AMINO-4-METHYL-.
Product code	LR-0107
Chemical formula	$C_6H_{13}NO_2$
Molar weight	131.18
Recommended use and Restrictions on use	For laboratory, school, commercial or industrial use. Not for medical or household use. Do not use for medical, food or household purposes.
Supplier	LABORATOIRE MAT 610, rue Adanac Québec Québec G1C 7B7 418-660-8666 Mon-Fri 8h-16h www.labmat.com labmat@labmat.com
Emergency phone	418-660-8666 Mon-Fri 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS	2025-08-28

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA	- Not a hazardous substance according to WHMIS
Hazards statements (H)	- Not a dangerous substance or mixture according to the Canada WHIMS
Precautionary statements (P)	- The use of this product does not present any particular risk. However, standard laboratory safety precautions such as wearing gloves, clothing and eye protection should be followed.
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)

Health	0
Fire	1
Reactivity	0
Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
L-Leucine	61-90-5	<=100%

SECTION 04 - FIRST AID MEASURE

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Skin, eye and respiratory system irritation. Ref. section 11.
Immediate medical attention and special treatment, if necessary	Treat according to symptoms. Show this sheet to the attending physician.

SECTION 05 - FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Combustion products	Hazardous combustion products formed under fire conditions: Nitrogen oxides (NOx). Carbon oxides.
Specific hazards of the dangerous product	May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency measures	Evacuate personnel to safe areas. When handling, wear appropriate safety equipment (reference Section 8 for protective equipment to be used). Ensure a good ventilation. Use NIOSH cartridge respiratory protection if necessary or for larger spills. Cut off all sources of ignition. Avoid dust formation. Avoid breathing dust.
Methods and materials for containment and cleaning up	Pick up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Discharge into the environment must be avoided.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry, and well-ventilated place. Keep container tightly closed and store away from heat, water, moisture, and incompatible products (ref. section 10).
Methods of handling	Avoid contact withh eyes, skin and clothing. Avoid ingestion and inhalation. Wear personal protective equipment (ref. section 8) when handling. Always ensure good ventilation. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use. Avoid the formation of dust.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Component	CAS-No.	Value
L-Leucine	61-90-5	No occupational exposure limits established by region-specific regulators - Quebec, Alberta, Ontario, British Columbia.

Respiratory	If permitted levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator.
Gloves	Handle with protective gloves. Suggested material: Nitrile. Butyl. Neoprene. The type, thickness and length of the glove must be chosen according to the use, the concentration of the product, as well as the duration of use. Replace gloves regularly for better protection.
Eyes	Safety goggles with safety shutters.
Shoes	Use safety shoes.
Clothes	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Use fan. Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Color	White.
Odour	Odorless.
Odour threshold	Data not available.
Melting point and freezing point	293 °C.
Boiling point	Sublimes at 145-148 °C. Decomposes at 293-295 °C.
Flammability	Data not available.
Lower flammable / Explosive limit	Data not applicable.
Upper flammable / Explosive limit	Data not applicable.
Flash point	Data not applicable.
Auto-ignition temperature	Data not available.
Decomposition temperature	Data not available.
pH	Data not available.
Kinematic viscosity	Data not applicable.
Solubility	soluble in water: 23 g/l at 25 °C (77 °F).
Partition coefficient water/n-octanol	Data not available.
Vapour pressure	Data not available.
Relative density	1.293 g/cm3 at 18 °C.
Vapour density	0.00000001 [mmHg].
Particle characteristics	Powder or crystals.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances. Fine dusts of organic materials have the potential to form a combustible or explosive mixture with air if confined in a small space and subjected to an ignition source.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May react violently with incompatible substances. May form combustible dust concentrations in the air.
Conditions to avoid	Avoid moisture. Avoid contact with incompatible materials and extreme temperatures. Avoid dust formation.
Incompatible materials	Strong oxidizers.
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO2). Nitrogen oxides (NOx).

SECTION 11 - TOXICOLOGICAL INFORMATION

L-LEUCINE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	Irritation. Some sources report having had cases of: Shown to have tumor promoting activity for bladder carcinomas.
- Inhalation	Irritation of the mucous membranes and respiratory tract.
Acute toxicity (Ingestion)	Acute absorption can lead to: Teratogenicity and fetal loss observed in high dose animal studies.
Chronic exposure effects / symptoms	To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
DL50 (specify species and route of entry)	LD50 Oral - Rat - > 16,000 mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

L-LEUCINE

Ecotoxicity	Data not available.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Data not available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	N/R
UN Proper shipping name	
Transport hazard class(es)	
Packing group	
Limited quantity index	
ERAP Index	
Special precautions	

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA - Not a hazardous substance according to WHMIS

SECTION 16 - OTHER INFORMATION

CNESST: Commission des normes, de l'équité et de la santé et sécurité au travail
NIH: National institute of health (U.S. Naltional Library of Medecine)
ECHA: Agence Européenne de Chimie
ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
VECD: Valeur d'exposition courte durée
VEMP: Valeur d'exposition moyenne pondérée
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TLV : Threshold limit value
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling
RSST: Règlement sur la santé et sécurité au travail (Québec)
INRS: l'Institut national de recherche et de sécurité pour la prévention des accidents du travail et des maladies professionnelles (France)

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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