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Material Safety Data Sheet

DL-METHIONINE

Section 1 - Product Identification

Product Name : DL-Methionine
CAS No. : 59-51-8
Synonym : DL-2-Amino-4-(Methylthio)butyric Acid.
Company Identification : Tradeasia International Pte. Limited
Address :
133 Cecil Street # 12-03 Keck Seng Tower, Singapore
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Email: contact@chemtradeasia.com

Section 2 – Composition/Information on Ingredients

Substances

Name of substance	DL-Methionine
Identifiers	
CAS No	59-51-8
Molecular formula	C5H11NO2S.
Molar Mass	149.21 g/mol

Section 3 – Hazardous Ingredients & Occupational Exposure Limits

Classification of the substances or mixture

Classification acc. to OSHA "Hazard Communication Standard" 29 CFR 1910.1200)

No known OSHA HAZARDS

Not a dangerous substance according to GHS

Label Elements

Statutory basis: Classification according to Regulation 29CFR 1910.1200

Remarks: Not a hazardous substance or mixture.

Contains DL-Methionine

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 99 %

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Section 4 – First-Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before

reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 – Employee Protection

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Keep unauthorized persons away.

Environmental precautions

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

Methods and material for containment and cleaning up

Absorb mechanically avoiding production of dust.

Section 7 – Handling and Storage

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.

Section 8 – Exposure Controls/Personal Protection (later)

Contains no substances with occupational exposure limit values.

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 – Physical and Chemical Properties

Information on basic physical and chemical properties
Physical State: Powder
Appearance: white
Odor: faint odor
pH: Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate:Not available.
Viscosity: Not available.
Boiling Point: 186 deg C
Freezing/Melting Point:281 deg C
Decomposition Temperature:Not available.
Solubility: Soluble.
Specific Gravity/Density:1.3400g/cm3
Molecular Formula:C5H11NO2S
Molecular Weight:149.21

Other information
Explosiveness: Not to be expected in view of the structure
carbonisation point: 210 °C
Bulk density: 610 - 750 kg/m3
glow temperature: > 400 °C Method: VDI 2263
Minimum ignition energy: > 10 mJ (140 °C) Classification: Normal combustability Method: VDI Guideline 2263 sheet 1 mean grain size: 48 µm sieve fraction without inductance
maximum absolute explosive pressure: 7.8 bar
Metal corrosion: no data available
speed of hydrolysis: half-life period: 1 years (25 °C)
Burning number: BZ 5 - burns out with flames or shower of sparks. Method: VDI 2263

Section 10 – Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation, excess heat.
Incompatibilities with Other Materials: Oxidizing agents.
Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 – Toxicological Information

Acute Toxicity

Oral: LD50 : > 5000 mg/kg (rats, mice)

Dermal: LD50 : > 2000 mg/kg (mice)

Serious eye damage/eye irritation: Mildly Irritating (rabbit)

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity following single exposure: No specific target organs noted

Specific target organ toxicity following repeated exposure: No specific target organs noted

Aspiration hazard: No data available

Other Effects: No data available

Section 12 – Ecological Information

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

Section 13 – Disposal Considerations

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14 – Transport Information

Not a dangerous good.

Not regulated.

Section 15 – Regulatory Information

1. US Federal regulations

No known OSHA hazards

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

No SARA Hazards

2. International regulations

CANADA

WGK (Water Danger/Protection)

CAS# 59-51-8: 0

Canada - DSL/NDSL

CAS# 59-51-8 is listed on Canada's DSL List.

Canada - WHMIS

WHMIS: Not available.

Canadian Ingredient Disclosure List

EU-Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 28A After contact with skin, wash immediately with plenty of water.

3. National regulations

No additional information available

4. US State regulations

CAS# 59-51-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

Section 16 - Additional Information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product