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ALFAAL08840

## **N-Benzyloxycarbonyl-L-methionine**

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

产品说明:	N-苄氧羰基-L-蛋氨酸
Product Description:	N-Benzyloxycarbonyl-L-methionine
Cat No. :	<b>L08840</b>
Synonyms	N-Carbobenzyloxy-L-methionine; Z-Met-OH; N-(Benzyloxycarbonyl)-L-methionine
CAS No	1152-62-1
Molecular Formula	C13 H17 N O4 S
Supplier	Avocado Research Chemicals Ltd. (Part of Thermo Fisher Scientific) Shore Road, Heysham Lancashire, LA3 2XY, United Kingdom Office Tel: +44 (0) 1524 850506 Office Fax: +44 (0) 1524 850608
Emergency Telephone Number	For information <b>US</b> call: 001-800-227-6701 / <b>Europe</b> call: +32 14 57 52 11 Emergency Number <b>US</b> :001-201-796-7100 / <b>Europe:</b> +32 14 57 52 99 <b>CHEMTREC</b> Tel. No. <b>US</b> :001-800-424-9300 / <b>Europe:</b> 001-703-527-3887
E-mail address	begel.sdsdesk@thermofisher.com
Recommended Use	Laboratory chemicals.
Uses advised against	No Information available

## **SECTION 2. HAZARD IDENTIFICATION**

Physical State
Solid

Appearance White Odor No information available

## **Emergency Overview**

The product contains no substances which at their given concentration are considered to be hazardous to health.

#### <u>Classification of the substance or mixture</u> Based on available data, the classification criteria are not met

#### Label Elements

None required

 Physical and Chemical Hazards

 None identified.

 Health Hazards

 The product contains no substances which at their given concentration are considered to be hazardous to health.

 Environmental hazards

 Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

#### N-Benzyloxycarbonyl-L-methionine

#### Other Hazards

This product does not contain any known or suspected endocrine disruptors.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No	Weight %
N-(Benzyloxycarbonyl)-L-methionine	1152-62-1	>95

#### **SECTION 4. FIRST AID MEASURES**

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

## Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

#### Inhalation

Remove to fresh air. Get medical attention immediately if symptoms occur.

#### Ingestion

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

#### Most important symptoms and effects

None reasonably foreseeable.

#### Self-Protection of the First Aider

No special precautions required.

#### Notes to Physician

Treat symptomatically.

## **SECTION 5. FIRE-FIGHTING MEASURES**

#### Suitable Extinguishing Media

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

#### Extinguishing media which must not be used for safety reasons No information available.

#### **Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors.

#### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### **Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

#### **Environmental Precautions**

Should not be released into the environment. See Section 12 for additional Ecological Information.

#### N-Benzyloxycarbonyl-L-methionine

### Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

Refer to protective measures listed in Sections 8 and 13.

#### **SECTION 7. HANDLING AND STORAGE**

#### Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

#### Storage

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

#### Specific Use(s)

Use in laboratories

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

#### **Control Parameters**

#### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

#### Exposure Controls

#### Engineering Measures

None under normal use conditions. .

#### Personal protective equipment

**Eye Protection** Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Protective gloves

Hand Protection

Glove materialBreakthrough timeGlove thicknessEU standardGlove commentsNitrile rubberSee manufacturers-EN 374(minimum requirement)Neoprenerecommendations-EN 374(minimum requirement)Natural rubberPVC----

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure	
Respiratory Protection	No protective equipment is needed under normal use conditions.	
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced <b>Recommended Filter type:</b> Particle filter	
Small scale/Laboratory use	Maintain adequate ventilation	

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**Hygiene Measures** 

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No information available.

### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	White Solid	
Physical State	Solid	
Odor	No information available	
Odor Threshold	No data available	
рН	No information available	
Melting Point/Range	67 - 70 °C / 152.6 - 158 °F	
Softening Point	No data available	
Boiling Point/Range	No information available	
Flash Point	No information available	Method - No information available
Evaporation Rate	Not applicable	Solid
Flammability (solid,gas)	No information available	
Explosion Limits	No data available	
Vapor Pressure	No data available	
Vapor Density	Not applicable	Solid
Specific Gravity / Density	No data available	
Bulk Density	No data available	
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/wate	er)	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	Not applicable	Solid
Explosive Properties	No information available	
Oxidizing Properties	No information available	
Molecular Formula	C13 H17 N O4 S	
Molecular Weight	283.35	

**SECTION 10. STABILITY AND REACTIVITY** 

Stability	Stable under normal conditions.
Hazardous Reactions Hazardous Polymerization	None under normal processing. Hazardous polymerization does not occur.
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation.
Materials to avoid	Strong oxidizing agents. Strong acids.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NOx). Ammonia. Sulfur oxides.

#### SECTION 11. TOXICOLOGICAL INFORMATION

**Product Information** 

No acute toxicity information is available for this product

(a) acute toxicity;

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(b) skin corrosion/irritation;	No data available					
(c) serious eye damage/irritation;	No data available					
(d) respiratory or skin sensitization; Respiratory Skin	No data available No data available					
(e) germ cell mutagenicity;	No data available					
(f) carcinogenicity;	No data available					
	There are no known carcinogenic chemicals in this product					
(g) reproductive toxicity;	No data available					
(h) STOT-single exposure;	No data available					
(i) STOT-repeated exposure;	No data available					
Target Organs	No information available.					
(j) aspiration hazard;	Not applicable Solid					
Symptoms / effects,both acute and delayed	No information available					
	SECTION 12. ECOLOGICAL INFORMATION					
Ecotoxicity effects	Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.					
Persistence and Degradability	No information available					
Bioaccumulative Potential	No information available					
Mobility in soil	No information available					
Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential	This product does not contain any known or suspected endocrine disruptors This product does not contain any known or suspected substance This product does not contain any known or suspected substance					
	SECTION 13. DISPOSAL CONSIDERATIONS					
Waste from Residues/Unused Products	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification					

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#### N-Benzyloxycarbonyl-L-methionine

Contaminated Packaging	Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.			
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.			
	SECTION 14. TRANSPORT INFORMATION			
Road and Rail Transport	Not Regulated			
IMDG/IMO	Not regulated			
IATA	Not regulated			
Special Precautions for User	No special precautions required			

## **SECTION 15. REGULATORY INFORMATION**

#### International Inventories

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component		List of dangerous goods GB 12268 - 2012	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
N-(Benzyloxycarbonyl) -L-methionine	-	-	Х	-	214-570-5	-	-	-	-		-	-

#### **National Regulations**

## **SECTION 16. OTHER INFORMATION**

Prepared By	Health, Safety and Environmental Department
Creation Date	22-Jun-2011
Revision Date	29-Apr-2024
Revision Summary	New emergency telephone response service provider.

#### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

#### Legend

CAS - Chemical A	Abstracts Service
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EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances

Inventory Substances List ENCS - Japanese Existing and New Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b)

AICS - Australian Inventory of Chemical Substances

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#### KECL - Korean Existing and Evaluated Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit ACGIH - American Conference of Governmental Industrial Hygienists DNEL - Derived No Effect Level RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50% NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road OECD - Organisation for Economic Co-operation and Development BCF - Bioconcentration factor

#### Key literature references and sources for data https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

TWA - Time Weighted Average

- IARC International Agency for Research on Cancer
- **PNEC** Predicted No Effect Concentration **LD50** - Lethal Dose 50%

LD50 - Lethal Dose 50%

**EC50** - Effective Concentration 50% **POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code **MARPOL** - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet