

Product name: MetAMINO 25 KG bag 1000 kg Pal: BE

SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: MetAMINO 25 KG bag 1000 kg Pal: BE**Chemical name:**
DL-Methionine, Feed Grade 99%**Other means of identification**
CAS Number: 59-51-8**Recommended restrictions**
Recommended use: Feed additive
Restrictions on use: None known.**Manufacturer/Importer/Distributor Information**

Company Name : Evonik Corporation
Nutrition & Care
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Richmond, VA 23237
USA

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Telephone : 800 681 9531 (CHEMTREC MEXICO)
+1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazards for the product as supplied
Not classified**Hazard(s) not otherwise classified (HNOC):** None.**Label Elements**

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

Precautionary No labeling is required under Regulation 29 CFR 1910.1200 (US GHS).

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Statements

3. Composition/information on ingredients

Chemical name:

DL-Methionine, Feed Grade 99%

Substances

Chemical Identity	Common name and synonyms	CAS No./Unique ID	Content in percent (%) [*]	Trade Secret
DL-Methionine		59-51-8 [*]	>=99%	TSC

^{*} Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition Comments: The components are not hazardous or are below required disclosure limits.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures
General information:

Pay attention to self-protection. Remove victims from hazardous area. Immediately remove soiled or soaked clothing and remove it to a safe distance. Keep victim warm, in a stabilized position and covered. Do not leave the victim unattended. Place patients who are unconscious but breathing in the stabilized lateral position.

Inhalation:

Inhalation is possible if aerosols, mists, dusts, or smoke form. Move to fresh air. With labored breathing: Provide with oxygen. Consult a doctor immediately. If the casualty is not breathing: Perform mouth-to-mouth resuscitation, notify emergency physician immediately.

Skin Contact:

Wash off affected area immediately with plenty of water for at least 15 minutes. Get medical attention if any discomfort continues.

Eye contact:

With eye held open, thoroughly rinse immediately with plenty of water for at least 10 minutes. In case of persistent discomfort: Consult an ophthalmologist.

Ingestion:

Rinse mouth. Immediately give large quantities of water to drink. Seek medical advice.

Personal Protection for First-aid Responders:

Pay attention to self-protection.

Most important symptoms and effects, both acute and delayed
Symptoms:

None known.

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Hazards: Other dangerous properties can not be excluded.

Indication of immediate medical attention and special treatment needed

Treatment: This substance does not have any noteworthy noxious potential. Damage to health is thus not expected.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, fog, CO₂, dry chemical, or alcohol resistant foam.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture: May be released in case of fire: hydrocyanic acid, flammable smouldering gases, NOX. Oxides of Sulfur. Carbon Monoxide. Carbon Dioxide.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Contaminated extinguishing water must be treated at a suitable disposal plant in accordance with waste management laws. In case of fire, remove the endangered containers and bring to a safe place, if this can be done safely. Keep unauthorized personnel away.

Special protective equipment for fire-fighters: In case of fire: full protective suit and wear a self contained respiratory apparatus In case of fire and/or explosion do not breathe fumes.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unauthorized personnel away. Avoid breathing dust.

Accidental release measures: Do not allow to enter soil, waterways or waste water canal.

Methods and material for containment and cleaning up: Pick up mechanically and collect in a suitable container. Avoid formation of dust. To absorb spilled substance an approved industrial vacuum cleaner is recommended. If necessary, the spilled substance should be moistened. Pack and label wastes like the pure substance. Do not detach label from the delivery containers prior to disposal. Disposal according to local authority regulations. Clean contaminated surface thoroughly.

Environmental Precautions: Observe regulations on prevention of water pollution (check, dam up, cover up). Do not allow entrance in sewage water, soil, stretches of water, drainage systems, surface water. If the product contaminates rivers and lakes or drains inform respective authorities.

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7. Handling and storage**Handling**

Technical measures:	Provide for installation of emergency shower and eye bath. Take precautionary measures against static discharges.
Local/Total ventilation:	Ensure suitable suction/aeration at the work place and with operational machinery.
Safe handling advice:	Take precautionary measures against static discharges. Avoid residues of the product on the containers. Avoid contact with eyes, skin, and clothing. Handle in accordance with good industrial hygiene and safety practice.
Contact avoidance measures:	see Precautions for safe handling.

Storage

Safe storage conditions:	Store at room temperature in the original container. Keep container tightly closed and in a well-ventilated place. Normal measures for preventive fire protection. Keep away from heat, sparks and open flame. Take precautionary measures against static discharges. In order to ensure due transportation, make certain that stacks are of the correct height, containers are securely fastened so as not to fall off, and labelled according to the regulations. In the event of internal transportation, already-opened containers are to be kept closed in order to avoid spillage.
Safe packaging materials:	No data available.

8. Exposure controls/personal protection**Control Parameters****Occupational Exposure Limits**

None of the components have assigned exposure limits.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls

Ensure suitable suction/aeration at the work place and with operational machinery. Provide for installation of emergency shower and eye bath. Take precautionary measures against static discharges.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection:	Safety glasses with side-shields conforming to EN166 or If dust occurs: basket-shaped glasses
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Skin Protection

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Hand Protection:

Material: Nitrile.
 Break-through time: 8 h
 Guideline: DIN EN 374
 Material: Natural rubber.
 Break-through time: 8 h
 Guideline: DIN EN 374
 Additional Information: The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use.

Skin and Body Protection:

Select materials and equipment for physical protection depending on the concentration and volume of hazardous substances and the workplace involved. Safety showers and eye showers should be easily accessible. In order to determine further specifications applicable to the personal protection equipment, a hazard assessment according to the OSHA standards (29 CFR 1910.132) for personal protection equipment (PPE) is recommended before the product is used.

Respiratory Protection:

When handling for a short time: If inhalable dust occurs: Dust mask with P1 particle filter in the event of prolonged exposure during handling: In the case of respirable dust, use self-contained breathing apparatus. Note time limit for wearing respiratory protective equipment.

Hygiene measures:

Avoid contact with eyes, skin, and clothing. Wash contact areas after handling. Take off clothing and shoes contaminated with product. Clean before reuse. Do not eat, drink, smoke, or sniff while at work. Wash your hands and/or face before breaks and before termination of work.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state: solid
Form: solid
Color: white to light brown

Odor: Characteristic

Odor Threshold: <
 1 ppb

Melting Point: 538 °F/ 281 °C
 Decomposition Literature

Boiling Point: Not applicable

Flammability: Not classified as a flammability hazard

Upper/lower limit on flammability or explosive limits

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Explosive limit - upper:	No data available.
Explosive limit - lower:	Dust Method: VDI 2263 30 g/m ³
Flash Point:	Not applicable
Auto-ignition temperature:	626 °F/330 °C Method: VDI 2263 (BAM-furnace) Standard commercial product with characteristic grain size distribution is normally flammable.
Decomposition Temperature:	419 °F/215 °C Method: TG (thermal gravimetric analysis)
pH:	5.6 - 6.1 (77 °F/25 °C) Concentration: 10 g/l Literature
Viscosity	
Dynamic viscosity:	Not applicable
Kinematic viscosity:	No data available.
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	33.5 g/l (77 °F/25 °C) Literature
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	-1.87 Literature
Vapor pressure:	< 0.0000001 hPa Method: calculated Modified Grain Method
Relative density:	No data available.
Density:	No data available.
Bulk density:	No data available.
Vapor density (air=1):	No data available.
Particle characteristics:	No data available.
Other information	
Explosive properties:	The product is susceptible to dust explosion.
Oxidizing properties:	Not to be expected.
Burning Rate:	1,200 s
Burning Number:	Burning Number: 5 Method: VDI 2263 BZ 5 - burns out with flames or shower of sparks.
Self-ignition:	> 302 °F/> 150 °C Method: VDI 2263 in 8l wire basket
Self-heating:	No data available.
Formation of Flammable Gases:	No data available.

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Peroxides:	Not to be expected.
Metal Corrosion:	No data available.
Minimum Explosible Concentration (MEC):	30 g/m ³
Dust explosion properties:	ST-1
Dust Explosion Description Number Kst:	85 m.b./s
Minimum ignition energy:	> 10 mJ Method: VDI 2263 sieve fraction without inductance

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Dust may form explosive mixture with air.
Conditions to avoid:	No further information available
Incompatible Materials:	No further information available
Hazardous Decomposition Products:	No further information available

11. Toxicological information

General information: gastro-intestinal symptoms: nausea, vomiting Side-effects were observed in the event of higher dosage (10 g)

Information on likely routes of exposure

Inhalation:	Relevant route of exposure. Information on effects are given below.
Skin Contact:	Relevant route of exposure. Information on effects are given below.
Eye contact:	Relevant route of exposure. Information on effects are given below.
Ingestion:	If handled correctly, not a relevant route of exposure. Information on effects are given below.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

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Acute toxicity (list all possible routes of exposure)

Oral

Product: LD 50, Rat, > 10,000 mg/kg, Literature, Not toxic after single exposure
Components:
 DL-Methionine LD 50, Rat, > 10,000 mg/kg, Not toxic after single exposure, Literature

Dermal

Product: Not classified for acute toxicity based on available data.
Components:
 DL-Methionine Not toxic after single exposure, No data available.

Inhalation

Product: LC 0, Rat, Female, Male, 4 h, > 5.25 mg/l, OECD 403, Yes, Not toxic after single exposure
 Not classified for acute toxicity based on available data.
Components:
 DL-Methionine LC 0, Rat, Female, Male, 4 h, 5.25 mg/l, Dust and mist, OECD 403, GLP, Not toxic after single exposure
 Not toxic after single exposure, Not applicable, Vapour

Repeated dose toxicity

Product: NOAEL Rat, Male, Oral, 1,253 mg/kg
 NOAEL Rat, Female, Oral, 1,423 mg/kg
Components:
 DL-Methionine NOAEL Rat, Male, Oral, 1,253 mg/kg
 NOAEL Rat, Female, Oral, 1,423 mg/kg

Skin Corrosion/Irritation

Product: Not irritating, OECD 404, (Rabbit, 4 h)
Components:
 DL-Methionine Not irritating, OECD 404, Rabbit, 4 h

Serious Eye Damage/Eye Irritation

Product: Not irritating, OECD 405, Rabbit
Components:
 DL-Methionine Not irritating, OECD 405, Rabbit

Respiratory or Skin Sensitization

Product: Buehler Test, OECD 406, Guinea Pig, Not a skin sensitizer.
Components:
 DL-Methionine Buehler Test, OECD 406, Guinea Pig, Not a skin sensitizer.

Carcinogenicity

Product: No data available.
Components:
 DL-Methionine Not classified

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogens present or none present in regulated quantities

ACGIH: US.ACGIH Threshold Limit Values:

No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogens present or none present in regulated quantities

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US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended:

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

No data available.

In vitro

Product: Literature, no evidence of mutagenic effects
Ames test, OECD 471: , negative

Components:

DL-Methionine Ames test, OECD 471: , negative

In vivo

Product: No data available.

Reproductive toxicity

Effects on fertility

Not classified based on available data.

Effects on fetal development

Not classified based on available data.

Reproductive toxicity - Assessment

Product: Reproductive toxicity: No data available.

Components:

DL-Methionine Reproductive toxicity: Not classified

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Components:

DL-Methionine Not classified

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Components:

DL-Methionine Not classified

Aspiration Hazard

Product: No data available.

Components:

DL-Methionine Not applicable

Information on health hazards

Other hazards

Product: No data available.

12. Ecological information

Ecotoxicity:

Toxicity to Aquatic Plants

Product: EC 50, Desmodesmus subspicatus (green algae), 72 h, > 1,000 mg/l,

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	OECD 201, Biomass
	EC 50, Desmodesmus subspicatus (green algae), 72 h, > 1,000 mg/l,
	OECD 201, growth rate
Components:	
DL-Methionine	EC 50, Desmodesmus subspicatus (green algae), 72 h, > 1,000 mg/l,
	OECD 201, Biomass
	EC 50, Desmodesmus subspicatus (green algae), 72 h, > 1,000 mg/l,
	OECD 201, growth rate

Toxicity to microorganisms

Product: EC 10, Pseudomonas putida, 18 h, 2,000 mg/l, UBA method

Components:

DL-Methionine EC 10, Pseudomonas putida, 18 h, 2,000 mg/l, UBA method

Acute hazards to the aquatic environment:

Fish

Product: LC 50, Brachydanio rerio (zebrafish), 96 h, > 3,200 mg/l/OECD 203
 NOEC, Brachydanio rerio (zebrafish), 96 h, 3,200 mg/l/OECD 203

Components:

DL-Methionine LC 50, Brachydanio rerio (zebrafish), 96 h, > 3,200 mg/l/OECD 203
 NOEC, Brachydanio rerio (zebrafish), 96 h, 3,200 mg/l/OECD 203

Aquatic Invertebrates

Product: EC 50, Daphnia magna, 48 h, 324 mg/l/OECD 202
 NOEC, Daphnia magna, 48 h, 220 mg/l/OECD 202

Components:

DL-Methionine EC 50, Daphnia magna, 48 h, 324 mg/l/OECD 202
 NOEC, Daphnia magna, 48 h, 220 mg/l/OECD 202

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Persistence and Degradability

Biodegradation

Components:

DL-Methionine The product is easily biodegradable.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: low log Pow: see chapter 9

Components:

DL-Methionine low

Partition Coefficient n-octanol / water (log Kow)

Product: -1.87, Literature

Components:

DL-Methionine -1.87, Literature

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Mobility in soil:**Product:** No data available.**Results of PBT and vPvB assessment:**

No data available.

Other adverse effects:**Additional ecological information****Product:** No data available.**Additional Information:** No data available.**13. Disposal considerations****Disposal methods:** Waste must be disposed of in accordance with federal, state, provincial and local regulations.**Contaminated Packaging:** Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities. Packaging material should be recycled or disposed of in accordance with federal, state and local regulations.**14. Transport information****Domestic regulation****49 CFR**

Not regulated as a dangerous good

Remarks : Not dangerous according to transport regulations.

International Regulations**UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

15. Regulatory information**US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721 and 725, Subpt E)

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

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US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Combustible dust

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US. EPCRA (SARA Title III) Section 313 Toxic Chemical Release Inventory (TRI) Reporting

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US State Regulations**US. California Proposition 65**

No ingredient requiring a warning under CA Prop 65.

16. Other information, including date of preparation or last revision**HMIS Hazard ID**

Health	0
Flammability	1
Physical Hazards	0
PERSONAL PROTECTION	

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

Version #: 3.0

Revision Date: 09/02/2025

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Date of first report version: 05/15/2019**Abbreviations and acronyms:**

AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further Information: No data available.**Revision Information** Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

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