

**SAFETY DATA SHEET** (91/155/EWG)

degussa.

**Mepron®**

Material no.		Version	4.0 / REG_EU
Specification	101614	Release Date	24.04.2006
VA-Nr		Print Date	18.01.2007
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**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name : Mepron®

Company : Degussa GmbH, GB Futtermitteladditive  
Abteilung FA-P-CSH  
Postfach 1345  
D-63403 Hanau

Telephone : +49 (0)6181/59-2024  
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Emergency telephone number : +49 (0)2236/76-2222  
Emergency telephone number(Telefax) : +49 (0)2236/76-2026

Use of the Substance / Preparation : Feed Additive

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name : Preparation based on DL-methionine  
Formula : C5 H11 N O2 S  
CAS-No. : 59-51-8  
EC-No. : 200-432-1

**3. HAZARDS IDENTIFICATION**

Not applicable.

**4. FIRST AID MEASURES****Inhalation**

In case product dust is released:  
Possible discomfort: cough, sneezing  
Take affected persons out into the fresh air.

**Skin contact**

No hazards which require special first aid measures.

**Eye contact**

Possible discomfort is due to foreign substance effect.  
Rinse thoroughly with plenty of water keeping eyelid open.  
In case of persistent discomfort: Consult an ophthalmologist.

**Ingestion**

Have the mouth rinsed with water.  
After absorbing large amounts of substance  
Consult a physician.

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**Notes to physician**

after absorbing large amounts of substance:

Possible discomfort: nausea, vomiting

Treatment of symptoms, administration of activated charcoal, acceleration of the gastro-intestinal tract.

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**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

water, foam, mist

**Extinguishing media which must not be used for safety reasons**

carbon dioxide (CO<sub>2</sub>)

**Specific hazards during fire fighting**

May be released in case of fire: hydrocyanic acid, flammable smouldering gases, NOX. sulphur oxides, carbon monoxide, carbon dioxide.

**Special protective equipment for fire-fighters**

In the event of fire, wear self-contained breathing apparatus.

**Further information**

Contaminated fire-extinguishing water must be disposed of in accordance with the regulations issued by the appropriate local authorities.

Fire residues should be disposed of in accordance with the regulations.

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**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Wear personal protective equipment.

Keep unauthorised persons away.

**Environmental precautions**

Do not allow the product into the following compartments:  
groundwater

**Methods for cleaning up**

Absorb mechanically avoiding production of dust.

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**7. HANDLING AND STORAGE****Handling****Safe handling advice**

Handle in accordance with good industrial hygiene and safety practices.

**Advice on protection against fire and explosion**

Combustible

Keep away from sources of ignition - No smoking.

Avoid dust formation.

Must be rendered inert for grinding.

VDI 2263 "Dust fires and dust explosions; dangers, evaluation, preventive measures."

Ensure there are sufficient retaining facilities for water used to extinguish fire.

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**Storage****Requirements for storage areas and containers**

Keep in a dry, cool place.  
Avoid light effect.  
Keep container tightly closed and dry.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Components with workplace control parameters****Engineering measures**

Ensure suitable suction/aeration at the work place and with operational machinery.  
Take precautionary measures against static discharges. Earthing of equipment.

**Personal protective equipment****Respiratory protection**

No special protective equipment required.  
If dust occurs: dust mask with P1 particle filter

**Hand protection**

Wear protective gloves made of the following materials: rubber or plastics.  
Change protective gloves regularly.

**Eye protection**

Safety glasses with side-shields  
If dust occurs: basket-shaped glasses

**Skin and body protection**

No special protective equipment required.

**Hygiene measures**

Wash face and/or hands before break and end of work.  
Cleanse and apply cream to skin after work.

**Protective measures**

Handle in accordance with good industrial hygiene and safety practices.  
If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	pellets
Colour	white
Odour	characteristic

**Safety data**

Melting point/range	n.a.
Boiling point/range	n.a.
Density	1,2 g/cm <sup>3</sup>
Bulk density	600 - 700 kg/m <sup>3</sup>

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Water solubility	hardly soluble
Partition coefficient (n-octanol/water)	log Pow: -1,28
	Method: calculated, OECD 107
	related to substance: DL-Methionine

**10. STABILITY AND REACTIVITY**

Conditions to avoid	To avoid thermal decomposition, do not overheat.
Hazardous decomposition products	decomposition products with heating above decomposition temperature sulphides, flammable smouldering gases
Thermal decomposition	215 °C TG (thermal gravimetric analysis)
Hazardous reactions	Must be rendered inert for grinding. Stable at room temperature.
Further information	The information given above refers to: DL-Methionine

**11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	LD50 Rat: > 10000 mg/kg Method: literature No signs of toxicity occurred related to substance: DL-Methionine
Acute inhalation toxicity	LC0 rat(male/female): > 5,25 mg/l / 4 h Method: OECD Test Guideline 403 limit test (maximum concentration attainable in experiments) - No deaths occurred. related to substance: DL-Methionine
Skin irritation	Rabbit: 500 mg / 4 h No skin irritation Method: OECD Guide-line 404 related to substance: DL-Methionine
Eye irritation	Rabbit: 100 mg No eye irritation Method: OECD Test Guideline 405 related to substance: DL-Methionine
Sensitization	Buehler Test guinea pig: not sensitizing to the skin Method: OECD Test Guideline 406 related to substance: DL-Methionine
Repeated dose toxicity	Oral Rat Testing period: 9 month NOAEL: 700 mg/kg Method: literature Reversible effects during the application period on liver, spleen, pancreas,

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related to substance: DL-Methionine

Gentotoxicity in vitro

Microorganisms, cell cultures  
none mutagenic / genotoxic effects  
Method: literature  
related to substance: DL-Methionine

Ames test Salmonella typhimurium  
negative  
Method: OECD 471  
related to substance: DL-Methionine

Toxicity to reproduction

1 generation pharyngeal probe Rat: in maternally non-toxic doses  
NOEL (No Observed Effect Level) of parents: 300 mg/kg  
NOEL F1: 300 mg/kg  
Method: OECD Test Guideline 415  
related to substance: DL-Methionine

Human experience

Side-effects were observed in the event of higher dosage (10 g)  
related to substance: DL-Methionine

gastro-intestinal symptoms: nausea, vomiting  
related to substance: DL-Methionine

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

Biodegradability

aerobic DOC (Dissolved Organic Carbon)  
inoculum: Activated sludge  
Concentration: 17 mg/l  
Exposure time: 28 d  
Result: 97 % Readily biodegradable.  
Method: OECD TG 301 A  
DOC decay  
related to substance: DL-Methionine

**Behaviour in environmental compartments**

Bioaccumulation

low  
log Pow: see chapter 9  
related to substance: DL-Methionine

**Ecotoxicity effects**

Toxicity to fish

LC50 (Brachydanio rerio): > 3200 mg/l / 96 h  
Method: OECD 203  
related to substance: DL-Methionine

NOEC (Brachydanio rerio): 3200 mg/l / 96 h  
Method: OECD 203  
related to substance: DL-Methionine

Toxicity to daphnia

static test Daphnia magna: 324 mg/l / 48 h  
Method: OECD TG 202  
Own test result.

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related to substance: DL-Methionine

## Toxicity to algae

static test *Desmodesmus subspicatus*: > 1000 mg/l / 72 h

End point: Biomass

Analytical monitoring: yes

Method: OECD TG 201

related to substance: DL-Methionine

static test *Desmodesmus subspicatus*: > 1000 mg/l / 72 h

End point: growth rate

Analytical monitoring: yes

Method: OECD TG 201

related to substance: DL-Methionine

## Toxicity to bacteria

EC 10 *Pseudomonas putida*: 2000 mg/l / 18 h

Method: UBA method

related to substance: DL-Methionine

**Further information on ecology**Biochemical Oxygen Demand  
(BOD)

480 mg/g

Concentration: (BOD5)

related to substance: DL-Methionine

**13. DISPOSAL CONSIDERATIONS****Product**

Disposal according to local authority regulations.

Offer rinsed packaging material to local recycling facilities.

**Waste Key Number**

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

**14. TRANSPORT INFORMATION****Transport/further information**

Not classified as dangerous in the meaning of transport regulations.

**15. REGULATORY INFORMATION****Labelling according to EC Directives**

Other data

On the basis of our data the product is not a hazardous substance as defined by the Chemicals Act or Hazardous Substance Ordinance in the currently valid versions.

**National legislation**

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Other regulations

Observe national regulations.

**16. OTHER INFORMATION****registration**

Europe (EINECS/ELINCS)	listed/registered List refers to main components.
USA (TSCA)	listed/registered List refers to main components.
Canada (DSL)	listed/registered List refers to main components.
Australia (AICS)	listed/registered List refers to main components.
Japan (MITI)	listed/registered List refers to main components.
Philippines (PICCS)	listed/registered List refers to main components.
China	listed/registered List refers to main components.
Switzerland	listed/registered

**Further information**

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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.

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