

MATERIAL SAFETY DATA SHEET**AMINOSTIM®****1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY****Identification of the substance or preparation:**

Identity: AMINOSTIM®
Formula: aqueous solution of fertilisers
Usage: Agriculture

Manufacturer / supplier name:

Mebrom N.V.
Assendestraat 4
9940 Rieme-Ertvelde
Belgium
Telephone number for emergency: 00.32 (0)93.41.97.97
Fax number: 00 32 (0)93.41.97.70

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Quantity per 100 litres	Risk sentences
Amino acids	NA	4,86 Kg	Not classified
Urea	57-13-6	10,00 Kg	Not classified
Ammonium nitrate	6484-52-2	4,75 Kg	R 8, R 9
Potassium nitrate	7757-79-1	7,75 Kg	R 8
Phosphoric acid	7663-38-2	7,75 Kg	R 34
Potassium hydroxide	1310-58-3	3,00 Kg	R 22, R 35
Water	NA	73,39 Kg	Not classified
	Total	110 Kg	

3. HAZARDS IDENTIFICATION**Health Rating:**

Flammability Rating : 0 - None
Reactivity Rating : 0 - None
Contact Rating : 1 - Slight
Lab Protective Equipment : Goggles

Inhalation:

Inhalation does not produce any effect. Mist or vapour cannot cause irritation to the nose, throat and upper respiratory tract. Severe exposure can enhance a cold or the flu if the person who breathes it was suffering those symptoms.

Ingestion:

An ingestion cannot produce any negative effects if the quantity ingested is less than 1.000 cc. If the quantity drunk is between 1.000 cc and 1.500, it may cause abdominal pain and aminobiosis or nausea, but no burns in the mouth, throat or stomach. If the quantity drunk is higher than 1.500 cc, it can lead to high excitement, anxiety, nervous breakdown or hyperactive behaviour, but not to chock, circulatory collapse nor death. These symptoms will start to disappear after ten-twelve hours. If the quantity drunk is less than 500 cc, a positive effect can be produced : neurosecretory and trophic action.

Skin contact:

Prolonged contact can cause irritation to skin. Symptoms include redness and itching.

Eye contact:

Causes irritation and redness.

Chronic exposure:

No negative effects have been produced on people who have been handling the product in the factory with direct exposure for more than twelve years. Positive effects: fast wound healing, pain reductions in wounds caused by a hit or a knock.

Aggravation of pre-existing conditions:

Persons with pre-existing upper respiratory problems (cold or flu) may be more susceptible to the effects of breathing mist or vapour from the substance NOMAR, which enhances the action of the micro-organisms that are infecting the upper respiratory tract.

4. FIRST AID MEASURES

Inhalation:

In case of persons with pre-existing upper respiratory problems remove to victim into fresh air.

Ingestion:

If the product has been swallowed in a quantity higher than 500 cc, induce vomiting. Give plenty of water. Get medical attention. No urgent actions will be required.

Skin contact:

Rinse the skin with water. Remove the contaminated clothing. Wash the clothing before re use. Clean the shoes before re use.

Eye contact:

Rinse the eyes with water. If a high quantity is thrown or poured on eyes, rinse them gently with plenty of water. No medical attention will be required.

5. FIRE-FIGHTING MEASURES

Fire:

Not considered as a fire hazard. Contact with metals and chemical products does not produce fire.

Explosion:

Not considered as an explosion hazard.

Fire extinguishing media:

Use any means suitable for extinguishing a surrounding fire. Water spray may be used to cool of containers exposed to fire. If water is used, use it in abundance to control the heat.

Special information:

In the event of a fire, wear full protective clothing against fire, and a contained breathing apparatus with full face piece operating in the pressure demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

No special requirements for ventilating the area in case of a leak or a spill. No personal protective equipment is required. Contain and recover liquid when possible. Not required neutralising the liquid. The product is environmentally friendly.

7. HANDLING AND STORAGE

No special measures are required for handling and storage. Store in a cool, dry, ventilated area away from heat sources. Avoid direct sunlight as it has a degrading effect on the substance. Keep above 0° C to prevent frost damage to the containers. Protect the containers against physical damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Airborne exposure limitations:

There are no limitations on the airborne exposure. No negative effects have been found.

Ventilation system:

Ventilation of the general exhaust is not imperative, since exposure to the substance has no effects on persons. For other purposes an industrial ventilation could be recommended, but is not required for the substance.

Personal respirators (NIOSH Approved):

No personal respirators are required, nor full-face piece respirator.

Skin protection:

Wear protective gloves. Impervious protective clothing, boots, aprons or overalls are not required.

Eye protection:

Wear chemical safety goggles or a full-face shield if the substance is splashing.

Exposure limits, TLV value:

No TLV value.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	liquid, clear yellow to brown.
Odour:	light odour of ammonia.
Solubility:	miscible in all proportions in water
Specific gravity:	1.1 at 20°C
pH:	5.8
Boiling point:	100°C.
Melting point:	100°C.
Freezing point:	0 °C

10. STABILITY AND REACTIVITY

Stability:

Stable under ordinary conditions of use and storage.

Hazardous decomposition products:

No hazardous decomposition products may form when heated.

Hazardous polymerisation:

Will not occur.

Incompatibilities:

No incompatibilities have been found.

Conditions to avoid:

Do not store in areas with pathogen outbreak possibilities, with poisonous animals or rats which could use the substance as food.

11. TOXICOLOGICAL INFORMATION

The Ames test:

No mutagenic activity in histidine auxotrophos of *Salmonella Typhimurium*.

The acute oral median lethal dosage (LD50):

Not greater than 2000 mg/kg. Classified as "low oral toxicity". No death.

Oral (gavage) administration to CD rats for four weeks:

Up to 4000 mg/kg/day did not elicit any evidence of toxicity. No death. No LD.50 found (LSR, UK, 1991).

Mutagenicity:

Not mutagenic or neoplastic.

Acute toxicity for fish:

No negative or toxic effects. LC50>3000 mg/l (Rostov Institute, Ex-USSR, 1990)

Chronic toxicity for fish:

Spawn, young fish, sturgeon larva, daphnia magna: no negative or toxic effects. LDO > 2.344 mg/l. LD> 3000 mg/l (Rostov Institute, 1990)

Algae:

No growth inhibition observed.

Toxic effects on soil organism:

No toxic effects observed.

Effect on birds:

No toxic effects to birds.

Toxic effects on pollinating insects:

No acute toxicity to bees, nor under chronic usage, neither in reproductive studies.

12. ECOLOGICAL INFORMATION

Environmental effects:

This product has positive effects on the environment. It is an environmentally friendly product. When released into the soil, it enhances the activity of agrobiological microflora by improving the fertility of soils. No negative effects on groundwater. This product has a very short persistence in the soil.

Environmental toxicity:

No toxic effects on the environment have been found.

13. WASTE DISPOSAL CONSIDERATIONS

This product does not require special disposal consideration. Recovery or recycling should be handled as hazardous waste. In case the product is contaminated during the storage by other contaminants the waste management has to take care of its elimination or removal. This will be carried out in a waste facility in accordance with regulations or requirements of the European Community, state or local government. The waste management options will be determined on the basis of the contaminating agent: biologic or chemical. If biologic: the elimination or recycling of product should be handled as hazardous waste.

14. TRANSPORT INFORMATION

Domestic (land, D.O.T.):

Proper shipping name :	Amino Acids
Hazard class :	none
UN/NA :	none
Packing :	group III
Information reported for product/size :	none

International (water, I.M.O.):

Proper shipping name :	Amino Acids
Hazard Class :	none
UN/NA :	none
Packing :	group III
Information reported for product/size :	none

15. REGULATORY INFORMATION

Not found.

16. OTHER INFORMATION

NFPA Ratings :	Health: 0 Flammability: 0 Reactivity: 0
Label Hazard Warning :	None.
Label precautions :	None.
Label first aid :	Not required.
Product use :	Agriculture

17. DISCLAIMER

The information provided on this MSDS 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 as a warranty or quality specification. Individuals receiving the information must exercise their independent judgement in determining it's appropriateness for a particular purpose. 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. Accordingly, MEBROM NV will not be responsible for damages resulting from use of or reliance upon this information.

Prepared by:

Manufacturing & Production Department

MEBROM NV
Assenedestraat 4, 9940 Rieme-Ertvelde
Tel 00 32 (0)9 341 97 97
Fax 00 32 (0)9 341 97 70
E-mail : mebrom@mebrom.com
Website : www.mebrom.com



MEBROM
TECHNOLOGY FOR AGRICULTURE