

SSAB MEROX AB
OXELÖSUND/BORLÄNGE

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Product name: **Ammonium sulfate**

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

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Commercial product name:	Chemical name:	Application/use:
Ammonium sulfate	Ammonium sulfate	Fertilizer

2. COMPOSITION / INFORMATION ON INGREDIENTS

Components:		CAS-nr	Content %	Classification / R-phrases
Ammonium sulfate	(NH ₄) ₂ SO ₄	7783-20-2	>99	

3. HAZARDS IDENTIFICATION

Inhalation: Over-exposure by inhalation may cause respiratory tract irritation.

Skin contact: May irritate skin

Eye contact: May irritate eyes

Ingestion: Ingestion may cause irritation of the digestive tract, as nausea and vomiting.

Ammonium sulfate emits ammonia on exposure to strong basics. Can react violently with some chemicals. Never mix with other materials, unless knowing it is without risk. Evaporate poison gas when heated.

4. FIRST-AID MEASURES

Inhalation: Fresh air. If trouble remains contact medical care.

Skin contact: Wash off with soap and water. Soften irritated skin with hand cream.

Eye contact: Check for and remove any contact lenses. Immediately rinse eyes with water for at least 15 minutes, keeping eyelids open. If trouble remains contact medical care.

Ingestion: Drink several glasses of water or milk and induce vomiting. Get medical aid immediately.

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5. FIRE-FIGHTING MEASURES

Thermal decomposition:	starts at 235°C
Melting point:	280°C
Flashpoint:	Not applicable
Flammability:	Not applicable

Do not burn. Flammable/toxic gases (ammonia, sulphur oxides, nitrogen oxides) will form at elevated temperatures from 455°F/235°C. A self contained breathing apparatus should be used and full protective clothing. Normal fire fighting procedures may be used.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	See section 8.
Methods for cleaning up:	Gather together mechanically. If necessary bank in with soil and rinse with water. Avoid ammoniumsulphate solution in sensitive water biotopes or freshwater sources.

7. HANDLING AND STORAGE

Handling:	Avoid dust release.
Storage:	In a dry place and not near strong bases and/or in a place where risk for fire or heating of the product may occur. Keep away from food, drink and animal feed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment:	If prolonged or repeated exposure to the material use tight-fitting protective goggles and air purifying respirator (gas mask) with high-efficiency particulate filter. Protect the skin with protective clothing and leather gloves.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Apperance:	crystals
Colour:	white-colourless
Taste:	acid
Molecular weight:	132,14
pH of 0,1 molar aq soln:	5,5
Specific weight:	1,8 ton/m ³
Bulk weight:	1,08 ton/m ³
Solubility in water [%]:	41,3 at 0°C, 43 at 20°C, 45,7 at 50°C, 50,4 at 100°C
Solubility in water [g/ liter]:	701 at 0°C, 754 at 20°C, 843 at 50°C, 1017 at 100°C

MATERIAL SAFETY DATA SHEET**10. STABILITY AND REACTIVITY**

Stability: Stable substance

Conditions to be avoided: Heating

Materials and chemical products to be avoided: Ammonium nitrate, copper, potassium chlorates, zinc.
React with strong bases and form poison gas as sulphuroxide (SO_x), nitrogenoxide(NO_x) and ammonia(NH₃).

Avoid contact with moisture. Slow hydrolysis will produce corrosive acid.

11. TOXICOLOGICAL INFORMATION

Result from tests: LD-50 oral rat 2840 mg/kg, LD-50 oral mouse 640 mg/kg,
LDL-0 oral unspecified domestic animal 3500 mg/kg.

Source: Database RTECS

See also section 3.

12. ECOLOGICAL INFORMATION

Potential harm to amphibian populations could occur if NH₄-N and NO₃-N in agricultural runoff or drainage - impacts sensitive life stages for a sufficiently long period.

The fertilising effects of the product can cause overfeed if wrongly used - either by overdose or drainage if not absorbed by the corps.

Result from tests: LC-50 fish 2 g/dm³ (acute), 0,2 g/dm³(sublethal).

Source: Database BIOSIS 1992-1999

LC50 (48h) daphnia magna 129 mg/dm³

Can not be classified as environmentally harmful due to present legislation and information about the product. Is not listed as a Marine-pollutant.

13. DISPOSAL CONSIDERATIONS

See chapter 6. Try to keep the product separated and do not mix with other chemicals. Contact local government for more detailed information about your waste regulations.

14. TRANSPORT INFORMATION

The substance is not dangerous goods according to ADR. Not otherwise classified.

15. REGULATORY INFORMATION

No classification and labelling according to directive 67/548/EEC and 88/379/EEC.

16. OTHER INFORMATION

The byer assumes all risk within the use of this product. SSAB Merox AB assumes no responsibility for the information supplied on this sheet and no responsibility for injury or damage caused directly or indirectly by or related to the use of the product.