

Safety Data Sheet

According to Regulation (EC) No 1907/2006

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Issue date : December 05, 2011

Revision # 1 date : March 20, 2020

1: Identification of the substance / mixture and of the company / undertaking

1.1 Identification of the substance :

Trade name:	Ammonium sulphate
Chemical name:	Ammonium sulphate
Identification number:	CAS No: 7783-20-2
Registration number:	01-2119455044-46-xxxx

1.2 Use of the substance :

Identified uses:	mineral supplement, special applications
Unrecommended uses:	---

1.3 Company/undertaking identification :

Macco Organiques, s. r.o.

Zahradní 46c, 792 01 Bruntál, Czech Republic

IČ : 26819210 , phone: +420 – 555 – 530 334

SDS provider's contact: Jaroslav Zavadil , phone: +420 – 555 – 530 340, jaroslav.zavadil@macco.cz

1.4 Emergency telephone:

The first aid details may be consulted with toxicological information centre (TIS): Job-related illness clinic, Na Bojišti 1, 128 08 Praha 2, tel. 2 24 91 92 93 or 2 24 91 54 02. Permanent poisoning informations.

2: Hazard identification

The substance is **NOT** classified as dangerous according to Directive 1272/2008/ES

2.1 Classification of the substance:

Acc. to Directive 1272/2008/ES	---
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The most important adverse physicochemical, human health and environmental effects and symptoms :

May be harmful if swallowed. Coughing. Sore throat . shortness of breath/breathing difficulty

The information shown on the label shall be given under heading 15.

2.2 Information on the label:

Hazard pictogram	---	Signal word	---
Hazard statements	---		
Precautionary statements	---		
Additional information on label	none		

2.3 Other dangerousness:

Substance is NOT classified as PBT or vPvB.

3: Composition / information on ingredients

3.1 Substance

3.1.1 Constituent

Chemical identity	Index No.	CAS	EINECS	concentration	classification list number
Ammonium sulphate	none	7783-20-2	231-984-1	100%	So far none

3.1.2 Impurities, stabilizers,

Chemical identity	Index No.	CAS	EINECS	concentration	classification list number
none	---	---	---	---	---

4: First aid measures

In all cases provide the physical and mental rest and avoid of getting chilled. In case of health problems or doubts inform physician and provide him with the information contained in this safety data sheet. Never pass a medication to a unconscious person. Maintain personal safeness during rescue operation.

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4.1 First aid description:

If inhaled:

Stop exposition, move the afflicted person to the fresh air, keep him warm and at rest. If symptoms persist seek medical attention. In case of unconsciousness start with resuscitation (artificial respiration, cardiac massage) and call for medical attention. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

In the event of skin contact:

Remove contaminated clothes and footwear. Wash of any skin contamination with cool water and soap. Launder clothes before re-use. In case of persisting irritation contact physician .

In the event of eye contact:

Remove contact lenses if present. Rinse with a small amount of water for at least 10 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical attention.

Do not use neutralization solution!

If swallowed:

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing Do not induce vomiting. Seek medical attention. When vomiting, maintain supervision until the help arrives. Obtain medical advice if symptoms persist.

4.2 The most important acute and belated symptoms and effects:

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Symptoms: red skin, eyes, blurred vision, Nausea, vomiting, diarrhoea.

4.3 Immediate medical help instruction and special treatment:

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5: Fire fighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Non-combustible substance . All extinguishing media are allowed, select the appropriate extinguishing media depending on the surrounding fire and environment.

Not suitable extinguishing media :

None known

5.2 Specific hazards :

Non-combustible substance. Decomposition product may include nitrogen oxides, sulfur oxides, ammonia, amines.

5.3 Special protective actions for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

6: Accidental release measures

6.1 Personal precautions:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Put on appropriate personal protective equipment. Use personal safety working clothes – section 8. Prevent from skin and eye contact. Do not touch or walk through spilt material. Avoid breathing dust. Well ventilate areas. Prevent from dust making. Other safety precautions – section 7.

6.2 Environmental precautions:

Prevent from escape to watercourses and soil and from their contamination. If there is no way to avoid it, immediately inform appropriate authority (police and firemen).

6.3 Methods for cleaning up:

Clean up contamination/spillages as soon as they occur. Collect as much as possible in a suitable clean container, preferably for re-use, otherwise for disposal (according section 13). Avoid generation of dust. Wash the spillage area with large quantities of water. When packaging is damaged, replace the amount into a new packaging with proper marking.

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6.4 Other sections references:

Also follow the regulations in sections 8 and 13 of this safety data sheet.

7: Handling and storage

7.1 Handling:

Use the personal safety tools (section 8). Maintain the cleanness and tidiness on the working area. Avoid contact with skin and eyes. Provide basic employee training to prevent / minimize exposures and to report any healthy problems that may develop. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Wash hands duly with soap and water, take a shower. Use a body lotion.

7.2 Storage:

Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Keep container tightly closed. Segregate from oxidising materials. Store away from bases, metals. Store in tightly closed packages.

7.3 Specific uses:

Industrial chemical, component of food supplements

8: Exposure controls / personal protection

8.1 Exposure limit values

8.1.1 Exposure limits

- not specified

8.1.2 Biological limit values:

- not specified

8.1.3 DNEL and PNEC values:

DNEL			PNEC		
Exposure	Value	Population	Compartment Detail	Value	Method Detail
Long term Dermal	12.8 mg/kg bw/day	Consumers	Fresh water	0.312 mg/l	Assessment Factors
Long term Inhalation	1.667 mg/m ³	Consumers			
Long term Oral	6.4 mg/kg bw/day	Consumers			
Long term Dermal	42.667 mg/kg bw/day	Workers			
Long term Inhalation	11.167 mg/m ³	Workers			

8.2 Exposure control

8.2.1 Occupational exposure control:

Operate in a well-ventilated area, avoid inhalation of dusts or mists (for liquids). Ensure shower and area for eyes rinsing. The mentioned personal safety instruments should be in compliance with EN standards.

Personal protective equipment:

Respiratory protection:	In the case of high dust levels wear suitable respiratory protective equipment, ie. dust mask or respirator conforming to EN standards. Recommended filter = particle filter,P2.
Hand protection:	Wear suitable chemical resistant protective gloves for frequent or prolonged operations tested to EN374 with an acceptable permeation test. Suitable materials include neoprene (chloroprene), PVC and nitrile rubber. Break through time is > 480 min. Contaminated gloves should be carefully rinsed with water before reuse. Non suitable materials: Leather gloves.
Eye / face protection:	Wear suitable eye/face protection. Most materials for protective goggles and face visors will probably be suitable eg. polycarbonate.
Skin and body protection:	Normal working clothes is suitable.

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Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location

8.2.2 Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9: Physical and chemical properties

9.1 General information :

Physical state (at 20 °C):	Solid - crystals
Colour:	White
Odour (fragrance):	odourless
Threshold odour value:	odourless

9.2 Important health, safety and environmental information :

pH (at 20 °C):	5,0 – 6,0 (5 % solution at 20 °C)
Melting point:	Decomposes. >280 °C
Boiling point:	Decomposes.
Flash point:	Not applicable, incombustible matter
Evaporation rate:	Not applicable
Flamability (solid, gas) :	The substance is non-flammable
Explosion limits	lower: Not available, non-explosive matter upper: Not available, non-explosive matter
Vapour pressure:	irrelevant
Vapour density:	irrelevant
Relative density:	1,78 g/cm ³
Water solubility (at 20 °C) :	76 g / 100 ml
Solubility in solvents:	Not available
Partition coefficient n-octanol/water:	- 5.1
Self-ignition temperature:	Not applicable
Decomposition temperature:	>280 °C
Viscosity:	Not applicable
Explosive properties:	The substance is non-explosive
Oxidizing properties:	The substance is non-oxidizing

9.3 Other information:

Fat solubility:	Not available
Conductivity:	Not available
Gas group:	Not applicable

10: Stability and reactivity

Stable under recommended storage and handling conditions.

10.1 Conditions to avoid:

Humidity and moisture. Exposure to sources of heat.

10.2 Materials to avoid:

-Oxidizing substances and bases.

10.3 Hazardous decomposition products:

None at normal use. In case of fire decomposition occurs with release of nitrogen oxides, sulfur oxides, ammonia, amines (see section 5).

11: Toxicological information

Acute toxicity:

- LD ₅₀ oral, rat (mg.kg ⁻¹):	4540
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- LD ₅₀ dermal, rat (mg.kg ⁻¹):	>2000
- LC ₅₀ inhalation, rat, 8 hours (mg.m ⁻³):	>1000
Skin irritation:	No irritation
Eye irritation:	No irritation
Sensitisation:	Substance does not have sensitive effects on skin and respiratory system
Carcinogenicity:	Not carcinogenic substance
Mutagenicity:	Not mutagenic substance
Toxicity for reproduction:	Not toxic substance for reproduction
Toxicity for specific target body – single exposition	Substance does not have toxic effects within single exposition
Toxicity for specific target body – repeated exposition:	Substance does not have toxic effects within repeated exposition
Irritation if inhaled:	Substance does not have irritable effects
Other information: May be mildly irritating. The following applies to ammonium salts in general. After swallowing: nausea, vomiting, diarrhoea. Systemic effects: After intake of large quantities: drop in blood pressure, collapse, CNS disorders, respiratory paralysis, narcosis, haemolysis. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.	

12: Ecological information

12.1 Ecotoxicity:	
- LC ₅₀ 96 hr., fish (mg.l ⁻¹):	53
- EC ₅₀ 48 hr., daphnia (mg.l ⁻¹):	169
- LC ₅₀ 96 hr., fish- rainbow trout (mg.l ⁻¹):	39,2 – 43,8
12.2 Mobility :	Not specified
12.3 Persistence and degradability:	Biodegradability : readily
12.4 Bioaccumulative potential:	LogP _{ow} - 5.1 , potential : low
12.5 Results of PBT assessment:	Substance is not classified as PBT or vPvB.
12.6 Other adverse effects: Not specified.	

13: Disposal considerations

13.1 Product:

If recycling or reuse is not practical then the product must be disposed of by authorized personnel in accordance with local, state or national regulations. Never dispose by flushing into the drainage! Waste former is responsible for its sorting and disposal.

Special safety precaution for recommended waste treatment:

Preferably dispose in independent container.

13.2 Packaging:

If recycling or reuse is not practical then packaging must be disposed of by authorized personnel in accordance with local, state or national regulations. Clean packaging with water and dispose of washings in accordance to local regulations. Packaging can be passed to a packaging return system after the cleaning.

13.3 Legal waste regulations:

Directive 2008/98/ES

National or regional provisions may be in force !

14: Transport information

14.1 ADR/RID (Land Transport) :	Not classified as hazardous for transportation.
14.2 ADN/ADNR (Inland Waterway Transport):	Not classified as hazardous for transportation.
14.3 IMDG (Marine Transport) :	Not classified as hazardous for transportation.
14.4 ICAO/IATA (Air Transport) :	Not classified as hazardous for transportation.

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15: Regulatory Information

15.1 Health, safety and environmental information on the label : ---

15.2 Chemical Safety Assessment:

Not available.

15.3 National legislation:

Regulation (EC) No. 1907 / 2006 / ES, REACH

Regulation (EC) No. 1272 / 2008 / ES, CLP

National laws or provisions may be in force !

16: Other information

Changes made in Safety Data Sheet in terms of revision:

Revision of Safety data sheet in terms of avoidance of Directive 67/548/EHS.

Key or explanation for abbreviations:

DNEL Derived No Effect Level (derived concentration of substance, at which no unfavourable effects occur)
PNEC Predicted No Effect Concentration (prediction of substance concentration, at which no unfavourable effects occur)
PEL Acceptable exposure limit, long-term (8 hours)

Important literature references and data sources:

SDS of other producers, special literature, ECHA web. site <http://apps.echa.europa.eu/registered/registered-sub.aspx>)

Training instructions:

Before handling this substance, the personnel involved should be instructed by means of this safety data sheet.

Recommended restrictions of use:

Not specified

Other :

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