

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 27.02.2019

Version number 1

Revision Date 27.02.2019

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

- **1.1 Product identifier**
- **Trade name: Ammonium molybdate**
- **Article number:** AGR1156
- **CAS Number:**
12027-67-7
- **EC number:**
234-722-4
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:**
Laboratory chemicals, Manufacture of substances.
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier.**
Agar Scientific Ltd
Parsonage Lane
Stansted CM24 8GF
United Kingdom
sales@agarscientific.com
Tel: +44 (0) 1279 813 519
- **Further information obtainable from:** Technical Support
- **1.4 Emergency telephone number:** 24 hours: +44 (0)1856 407333

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

- Acute Tox. 4 H302 Harmful if swallowed.
- Acute Tox. 4 H312 Harmful in contact with skin.
- Acute Tox. 4 H332 Harmful if inhaled.
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
- **Precautionary statements**
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**
12027-67-7 Ammonium molybdate
- **Identification number(s)** AGR1156
- **EC number:** 234-722-4

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
No adverse effects are anticipated from inhalation.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Wash with water and soap and rinse thoroughly.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye under running water. If symptoms persist, consult a doctor.
If the substance has entered the eyes, wash out with water or saline solution for at least 15 minutes.
- **After swallowing:**
Call for a doctor immediately.
If the chemical has been confined to the mouth give large quantities of water as mouth wash. Ensure the mouth wash is not swallowed. If the chemical has been swallowed, give about 250 ml of water to dilute the stomach. In severe cases seek medical attention.
Remove the casualty out of the danger area after first ensuring your own safety. Loosen the patients clothing. If the casualty is unconscious, place in the recovery position and monitor breathing. Apply artificial respiration only if the patient is not breathing. Seek medical attention when anyone has symptoms apparently due to swallowing or inhalation.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media** Material is not flammable.
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **5.2 Special hazards arising from the substance or mixture**
If involved in a fire it decomposes to emit toxic fumes of ammonia and nitrogen oxides.
- **5.3 Advice for firefighters**
- **Protective equipment:** Positive pressure self-contained breathing apparatus.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear suitable eye protection and gloves.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Sweep up spilled substance but avoid making dust. Transfer to secure salvage container for disposal by an appropriate method or retain for recovery.
Wash the spillage site with large amounts of water.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Wear eye protection and gloves. Do not breath dust. Wear suitable dust mask if the situation demands.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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Protection of hands:


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:


Tightly sealed goggles

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance:

Form:	Crystalline
Colour:	Yellowish
Odour:	Characteristic
Odour threshold:	Not determined.

pH-value: Not applicable.

Change in condition

Melting point/freezing point:	287 °C
Initial boiling point and boiling range:	Undetermined.

Flash point: Not applicable.

Flammability (solid, gas): Product is not flammable.

Decomposition temperature: Not determined.

Auto-ignition temperature: Not determined.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure at 151 °C: 0.007 hPa

Density at 20 °C:	1.782 g/cm ³
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.

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- | | |
|---|--|
| · Solubility in / Miscibility with water: | Not determined. |
| · Partition coefficient: n-octanol/water: | Not determined. |
| · Viscosity:
Dynamic:
Kinematic: | Not applicable.
Not applicable. |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** Stable.
- **Thermal decomposition / conditions to be avoided:**
 No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
 Harmful if swallowed, in contact with skin or if inhaled.
- **Skin corrosion/irritation**
 Causes skin irritation.
 Irritating to the skin and can cause burns. Prolonged contact may cause dermatitis. Harmful if absorbed through the skin. Symptoms may include headache, drowsiness and cyanosis.
- **Serious eye damage/irritation**
 Causes serious eye irritation.
 Irritating to eyes and can cause burns.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
 Harmful if inhaled. Inhalation may affect nervous system and cause blood disorders. May cause kidney, liver and brain damage.
 Harmful if swallowed. If swallowed there is immediate severe irritation and symptoms of damage to central nervous system. May cause asthma-like symptoms, skin eruptions and swelling of mucous membranes in sensitive individuals. Prolonged absorption can cause liver and kidney damage.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
 May be disposed of by burial on a safe approved site.
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary with cleansing agents.

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA 	<p style="text-align: center;">UN3288</p>
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG, IATA 	<p style="text-align: center;">3288 TOXIC SOLID, INORGANIC, N.O.S. (Ammonium molybdate) TOXIC SOLID, INORGANIC, N.O.S. (Ammonium molybdate)</p>
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, IMDG, IATA 	<div style="text-align: center;">  </div> <p>· Class 6.1 Toxic substances. · Label 6.1</p>
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	<p style="text-align: center;">III</p>
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	<p style="text-align: center;">No</p>
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category 	<p style="text-align: center;">Warning: Toxic substances. 60 F-A,S-A A</p>
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	<p style="text-align: center;">Not applicable.</p>

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· Transport/Additional information:
· ADR

- **Limited quantities (LQ)** 5 kg
- **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g
- **Transport category** 2
- **Tunnel restriction code** E

· IMDG

- **Limited quantities (LQ)** 5 kg
- **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g

- **UN "Model Regulation":** UN 3288 TOXIC SOLID, INORGANIC, N.O.S. (AMMONIUM MOLYBDATE), 6.1, III

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Sales department
- **Contact:**
sales@agarscientific.com
Tel: +44 (0) 1279 813 519
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- *** Data compared to the previous version altered.**