

Revision: 1.1

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Section 1. Identification

1.1 Product Identifier 0840

Product Name AMMONIUM MOLYBDATE 4H₂O A.R.

CAS Number 12054-85-2

REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

Molecular Formula $(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} \cdot 4\text{H}_2\text{O} = 1235.86$

1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd



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Richardshaw Road
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LS28 6QW
UNITED KINGDOM

Phone 44 0113 2362811
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1.4 Emergency Telephone (08:00-16:30) +44(0) 113 2362811 (24hr) 112 (Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Skin corrosion/irritation, category 2
Serious eye damage/irritation, category 2
Spec target organ tox - single, category 3

H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Warning

Hazard Pictograms



Hazard Statements Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Precautionary Statements Avoid breathing dust / fume / gas / mist / vapours / spray. Wash thoroughly after handling. Wear protective gloves / protective clothing / eye protection / face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. IF ON SKIN: Wash with plenty of soap and water. If eye irritation persists: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Ammonium molybdate tetrahydrate	12054-85-2			>98%	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 (I)

Section 4. First Aid

4.1 Description of first aid measures

Eyes Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.

Skin Wash off skin thoroughly with water.

Inhalation Remove from exposure.

Ingestion Wash out the patient's mouth thoroughly with water. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION.

Personal protection for first aiders Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & 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. Fire Fighting

5.1 Extinguishing media

Extinguishing Media Consider what other flammable materials are present and act accordingly.

Unsuitable Media Nothing specified.

5.2 Special hazards arising from the substance or mixture

Hazards May evolve toxic fumes if involved in a fire.

5.3 Advice for firefighters

Advice for firefighters Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection Presents no major hazards.

6.2 Environmental precautions

Environmental Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

6.3 Methods and material for containment and cleaning up

Major Spillage Shovel/sweep up into container for removal Wash area down with copious amounts of water.

Minor Spillage Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage .

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits	
			Long Term (8hr TWA)	Short Term 15min period
Ammonium molybdate tetrahydrate	12054-85-2	>98%	-	-

Exposure data source(s) No occupational exposure data currently available.

8.2 Exposure controls

Respiratory Protection If process creates significant amounts of dust use L.E.V. or wear suitable dust mask.

Hand Protection Wear gloves.

Eye Protection Use tightly fitting chemical splash proof glasses or goggles.

Skin Protection Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

Special Hazards No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	White crystalline solid.
Odour	No specific odour.
pH	Not applicable
Boiling Point	Not available
Melting Point	Not applicable
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	Not available
Water Solubility	40%

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1	Reactivity	No data available.
10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	No specific conditions.
10.5	Incompatible Materials	Alkalis.
10.6	Hazardous Decomposition Products	Decomposes to emit ammonia and toxic and irritant fumes of sulphur dioxide.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Causes serious eye irritation.
Skin	Contact with the solid or dust may be irritating to the skin.
LD50 Skin	Not available
Ingestion	Ingestion of large amounts may cause diarrhoea, nausea, vomiting, hyperpnoea and convulsions.
LD50 Oral	3883mg/kg Rat
Inhalation	May cause respiratory irritation.
LD50 Inhalation	~2mg/l Rat (4 hours)
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

Section 12. Ecological

12.1	Toxicity	Presents no serious environmental problem.
	LC50 Algal	41mg/l Green algae (72 hours)
	LC50 Crustacea	140mg/l Daphnia magna (48 hours)
	LC50 Fish	420mg/l Rainbow Trout (96 hours)
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.
12.6	Other adverse effects	None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Do not dispose of as domestic waste.
Contaminated Packaging	Wash out containers with water.

Section 14. Transport Information

14.1 UN Number	Non-restricted
14.2 Proper Shipping Name	Non-restricted
14.3 Transport classes	
UN classification	None
Subsidiary hazard(s)	None
Transport category	None
ADR Hazard ID	Non-restricted
Tunnel Restriction Code	Non-restricted
14.4 Packing Group	None
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.

Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 2; Spec target organ tox - single, category 3

Signal word Warning

Hazard Pictograms



Hazard Statements H315, H319, H335
Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Precautionary Statements P261, P264, P280, P305+P351+P338, P302+P352, P337+P313, P332+P313
Avoid breathing dust / fume / gas / mist / vapours / spray. Wash thoroughly after handling. Wear protective gloves / protective clothing / eye protection / face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. IF ON SKIN: Wash with plenty of soap and water. If eye irritation persists: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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