

Safety Data Sheet

according to Regulation (EC) No 1907/2006

11032H Ammonium Molybdate Reagent

Revision date: 31.05.2017

Product code: 11032H

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

11032H Ammonium Molybdate Reagent

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Water analysis

1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH
Street: Willstätterstr. 11
Place: D-40549 Düsseldorf
Telephone: +49 (0)211 5288-383
e-mail: SDS@hach.com
Internet: www.de.hach.com
Responsible Department: HACH LANGE Ltd.
5, Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487 * Fax +44 (0) 161 848 7324
e-Mail: info-uk@hach.com

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
IRL-Dublin 12
Tel. +353 (0)1 4602522
e-Mail: info-ie@hach.com

1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Specific target organ toxicity - repeated exposure: STOT RE 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes serious eye damage.

Causes damage to organs through prolonged or repeated exposure.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

sulphuric acid ... %

Molybdic acid

Signal word: Danger

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Pictograms:



Hazard statements

- H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.
 H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P270 Do not eat, drink or smoke when using this product.
 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.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P310 Immediately call a POISON CENTER/doctor.

Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

2.3. Other hazards

no data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	Quantity
	EC No	Index No
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
7732-18-5	Water	50-60 %
	231-791-2	
7664-93-9	sulphuric acid ... %	30-40 %
	231-639-5	
	Met. Corr. 1, Skin Corr. 1A; H290 H314	
7782-91-4	Molybdic acid	1-5 %
	231-970-5	
	Eye Irrit. 2, STOT SE 3, STOT RE 1; H319 H335 H372	

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

- Take off all contaminated clothing immediately.
 Show this safety data sheet to the doctor in attendance.

After inhalation

- Move to fresh air. Consult a physician.

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After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After ingestion

Drink 1 or 2 glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Irritation and corrosion

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media**Suitable extinguishing media**

Carbon dioxide (CO₂), Dry chemical

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Water

5.2. Special hazards arising from the substance or mixture

The following may develop in event of fire: sulfur oxides., nitrogen oxides (NO_x), Ammonia

5.3. Advice for firefighters

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

In the event of fire, wear self-contained breathing apparatus.

In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.

Do not breathe vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling**Advice on safe handling**

Use only in well-ventilated areas.

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Avoid contact with skin and eyes.

Do not breathe vapours/dust.

Advice on protection against fire and explosion

None known.

See also section 5

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep containers tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with Oxidizing agents, Solvent, Bases, Metals

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
7664-93-9	Sulphuric acid (mist)	-	0.05		TWA (8 h)	WEL

Additional advice on limit values

None known.

8.2. Exposure controls

Appropriate engineering controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Protective and hygiene measures

Wash hands before breaks and after work.

General industrial hygiene practice.

Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove

material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Ensure adequate ventilation, especially in confined areas.

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type: ABEK-filter

Environmental exposure controls

Do not flush into surface water or sanitary sewer system.

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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	colourless
Odour:	odourless
pH-Value (at 20 °C):	<0,5

Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	no data available
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	no data available
:	no data available
Flash point:	not applicable
Sustaining combustion:	No data available

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

not applicable

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	not applicable

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature: no data available

Oxidizing properties

not applicable

Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	1,362 g/cm ³
Bulk density:	no data available
Water solubility: (at 20 °C)	miscible

Solubility in other solvents

Acids

Partition coefficient:	no data available
Viscosity / dynamic:	no data available
Viscosity / kinematic:	no data available
Flow time:	no data available
Vapour density:	no data available
Evaporation rate:	no data available
Solvent separation test:	no data available

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Solvent content: no data available

9.2. Other information

Solid content: no data available

Corrosive in contact with metals

Mild steel: 107,34 mm/a

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Strong bases, Solvent, Acetic acid

Incompatible with oxidizing agents.

Gives off hydrogen by reaction with metals.

10.6. Hazardous decomposition products

Sulphur oxides, nitrogen oxides (NO_x), Ammonia

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No toxicology information is available.

Acute toxicity

Based on available data, the classification criteria are not met.

No data is available on the product itself.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7664-93-9	sulphuric acid ... %				
	oral	LD50 mg/kg	2140	rat	

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes skin and eye burns.

Sensitising effects

Based on available data, the classification criteria are not met.

No known effect.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

The substance or mixture is not classified as specific target organ toxicant, single exposure.

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STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure.
H372 - Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.
No aspiration toxicity classification

Specific effects in experiment on an animal

No toxicology information is available.

Additional information on tests

None known.

Practical experience**Other observations**

None known.

Further information

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1. Toxicity

No data is available on the product itself.

12.2. Persistence and degradability

No data is available on the product itself.

12.3. Bioaccumulative potential

no data available

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1. Waste treatment methods**Advice on disposal**

In accordance with local and national regulations.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Waste disposal number of contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Contaminated packaging

Dispose of as unused product.

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SECTION 14: Transport information


Land transport (ADR/RID)

14.1. UN number:	UN 3264
14.2. UN proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s. (sulphuric acid < 45 % - solution)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
	
Classification code:	C1
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E


Inland waterways transport (ADN)

Other applicable information (inland waterways transport)
Not tested

Marine transport (IMDG)

14.1. UN number:	UN 3264
14.2. UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (<45% Sulphuric acid solution)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
	
Marine pollutant:	-
Special Provisions:	223, 274
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN 3264
14.2. UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (<45% Sulphuric acid solution)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
	
Special Provisions:	A3 A803
Limited quantity Passenger:	1 L

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Passenger LQ:	Y841
Excepted quantity:	E1
IATA-packing instructions - Passenger:	852
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	856
IATA-max. quantity - Cargo:	60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Use personal protective equipment.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

Other applicable information

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit, Hazard Class: 9, UN Number 3316, Package group II, EMS Code: F-A, S-P

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water contaminating class (D):	1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Revision: 31.05.2017
Safety datasheet sections which have been updated: 2, 8, 11
Revision: 11.07.2016
Safety datasheet sections which have been updated: 2, 5, 6, 7, 11, 14
Revision: 1.07.2015
Safety datasheet sections which have been updated: 2, 11
Revision: 17.02.2015
Safety datasheet sections which have been updated: 2-16

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Skin Corr. 1A; H314	Calculation method
Eye Dam. 1; H318	Calculation method
STOT RE 1; H372	

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

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H372 Causes damage to organs through prolonged or repeated exposure.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)