

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

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

1.1. Product identifier

Product name : Ammonium molybdate tetrahydrate
SDS-number : 000000020218
Type of product : Substance
Remarks : Document according to Art. 32 of Regulation (EC) 1907/2006.
Chemical name : hexa-Ammonium heptamolybdate-4-hydrate
CAS-No. : 12054-85-2
REACH Registration Number : no data available

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

Use of the Substance/Mixture : Laboratory chemicals
Uses advised against : none

1.3. Details of the supplier of the safety data sheet

Company : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
30926 Seelze
Germany
Telephone : (49) 5137-999 0
Telefax : (49) 5137-999 123
For further information, please contact: : PMTEU Product Stewardship:
SafetyDataSheet@Honeywell.com
Honeywell International, Inc.
115 Tabor Road
Morris Plains, NJ 07950-2546
USA

1.4. Emergency telephone number

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)
+1-303-389-1414 (Medical)
Country based Poison Control Center : see chapter 15.1

SECTION 2: Hazards identification

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2. Label elements

REGULATION (EC) No 1272/2008

Precautionary statements : P280

Wear protective gloves/ eye protection/
face protection.

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3. Other hazards

Avoid dust formation.

SECTION 3: Composition/information on ingredients

3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
hexa-Ammonium heptamolybdate-4- hydrate	12054-85-2 234-722-4		100 %	N.C.*

N.C.* - Non-hazardous substance - for information only

3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:

First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

Inhalation:

If inhaled, remove to fresh air.

Skin contact:

After contact with skin, wash immediately with plenty of water.

Eye contact:

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion:

When swallowed, allow water to be drunk. Call a physician immediately.

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

no data available

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

no data available

See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray

Foam

Carbon dioxide (CO₂)

Dry powder

Extinguishing media which shall not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.

5.3. Advice for firefighters

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

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

Provide adequate ventilation. Avoid dust formation.

6.2. Environmental precautions

Should not be released into the environment.

6.3. Methods and materials for containment and cleaning up

Use mechanical handling equipment.
Pick for disposal in tightly closed containers

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Wear personal protective equipment. Use with local exhaust ventilation. Avoid dust formation.

Advice on protection against fire and explosion:

Normal measures for preventive fire protection.

Hygiene measures:

Keep away from food, drink and animal feedingstuffs. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions:

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

7.3. Specific end use(s)

no additional data available

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
hexa-Ammonium heptamolybdate-4-hydrate	EH40 WEL TWA	5 mg/m ³ as Mo		
hexa-Ammonium heptamolybdate-4-hydrate	EH40 WEL STEL	10 mg/m ³ as Mo		

TWA - Time weighted average
STEL - Short term exposure limit

DNEL/ PNEC-Values

Component	End-use / Impact	Exposure duration	Value	Exposure routes	Remarks
hexa-Ammonium heptamolybdate-4-hydrate	Workers / Long-term systemic effects		19,36 mg/m ³	Inhalation	
hexa-Ammonium heptamolybdate-4-hydrate	Consumers / Long-term systemic effects		5,77 mg/m ³	Inhalation	
hexa-Ammonium heptamolybdate-4-hydrate	Consumers / Long-term systemic effects		5,89mg/kg bw /d	Ingestion	

Component	Environmental compartment / Value	Remarks
hexa-Ammonium heptamolybdate-4-hydrate	Fresh w ater: 22,01 mg/l	
hexa-Ammonium heptamolybdate-4-hydrate	Marine w ater: 3,94 mg/l	
hexa-Ammonium heptamolybdate-4-hydrate	Sew age treatment plant: 37,61 mg/l	Assessment factor: 10
hexa-Ammonium heptamolybdate-4-hydrate	Fresh w ater sediment: 39170 mg/kg dw	

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

hexa-Ammonium heptamolybdate-4-hydrate	Marine sediment: 4090 mg/kg dw	
hexa-Ammonium heptamolybdate-4-hydrate	Soil: 16,46 mg/kg dw	

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, safety shoes EN-ISO 20345.

Personal protective equipment

Respiratory protection:

In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection:

Glove material: Natural Latex

Break through time: > 480 min

Glove thickness: 0,6 mm

Lapren®706

Gloves must be inspected prior to use.

Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer's directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:

Safety glasses with side-shields

Skin and body protection:

Protective suit

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

Form	:	solid
Colour	:	colourless
Odour	:	odourless
	:	no data available
Flash point	:	Not applicable
Flammability (solid, gas)	:	The product is not flammable.
Ignition temperature	:	no data available
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Vapour pressure	:	no data available
Density	:	2,498 g/cm ³ at 20 °C
Bulk density	:	ca. 1.400 kg/m ³
Water solubility	:	4,3 g/l at 20 °C
Partition coefficient: n-octanol/water	:	no data available

9.2 Other Information

no additional data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

190 °C
Decomposition temperature
Loss of water of crystallization on heating.

10.3. Possibility of hazardous reactions

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

no data available

10.6. Hazardous decomposition products

Ammonia

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

LD50

Species: Rat

Value: 4.233 mg/kg

Method: OECD Test Guideline 401

Test substance: REACH dossier "read-across"

LD50

Species: Rat

Value: > 2.000 mg/kg

Method: OECD Test Guideline 420

Test substance: REACH dossier "read-across"

Acute dermal toxicity:

LD50

Species: Rat

Value: > 2.000 mg/kg

Method: OECD Test Guideline 402

Test substance: REACH dossier "read-across"

Acute inhalation toxicity:

LC50

Species: Rat

Value: > 5,84 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Test substance: REACH dossier "read-across"

Skin irritation:

Species: Rabbit

Classification: non-irritant

Method: OECD Test Guideline 404

Test substance: REACH dossier "read-across"

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

Eye irritation:

Species: rabbit eye

Classification: non-irritant

Method: OECD Test Guideline 405

Test substance: REACH dossier "read-across"

Respiratory or skin sensitisation:

Maximisation Test

Route of exposure: Dermal

Species: Guinea pig

Classification: non-sensitizing

Method: OECD Test Guideline 406

Test substance: REACH dossier "read-across"

Germ cell mutagenicity:

Test Method: In vitro gene mutation study in mammalian cells

Cell type: Mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Result: negative

Method: OECD Test Guideline 476

Test substance: REACH dossier "read-across"

Test Method: Ames test

Metabolic activation: with and without metabolic activation

Result: negative

Method: OECD Test Guideline 471

Test substance: REACH dossier "read-across"

Test Method: Micronucleus test

Cell type: Human lymphocytes

Metabolic activation: with and without metabolic activation

Result: negative

Test substance: REACH dossier "read-across"

Reproductive toxicity:

Method: OECD Test Guideline 414

Species: Rat

Route of Application: Oral

General Toxicity Maternal: NOAEL: > 40 mg/kg bw/d

Developmental Toxicity: NOAEL: > 40 mg/kg bw/d

Remarks: REACH dossier "read-across"

Aspiration hazard:

no data available

Other information:

no data available

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:

LC50

semi-static test

Species: *Oncorhynchus mykiss* (rainbow trout)

Value: 420 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Test substance: REACH dossier "read-across"

Toxicity to aquatic plants:

no data available

Toxicity to Microorganisms:

EC50

Respiration inhibition

Species: activated sludge

Value: 820 mg/l

Exposure time: 3 h

Method: OECD 209

Test substance: REACH dossier "read-across"

Toxicity to aquatic invertebrates:

EC50

static test

Species: *Daphnia magna* (Water flea)

Value: 79 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Test substance: REACH dossier "read-across"

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 and vPvB assessment

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

no data available

12.6. Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

ADR/RID

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

SECTION 15: Regulatory information

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

Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	no data available
Czech Republic	+420224919293; +420224915402

Country	Phone Number
Latvia	+37167042473
Liechtenstein	no data available
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	no data available
Netherlands	030-2748888

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Honeywell
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Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	no data available
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	no data available
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
	Munich : 089/19240

Norway	22591300
Poland	no data available
Portugal	808250143
Romania	no data available
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	no data available
Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786
United Kingdom	no data available

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Toxic Chemical Control Law (TCCL) List
On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

Ammonium molybdate tetrahydrate

09880-1KG

Version 1.2

Revision Date 30.04.2017

On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community

CAS Chemical Abstracts Service

DNEL Derived no effect level

PNEC Predicted no effect level

vPvB Very persistent and very bioaccumulative substance

PBT Persistent, bioaccumulative und toxic substance

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