

Magnesium sulfate heptahydrate

63140-1KG

Version 1.3

Revision Date 17.12.2022

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

1.1. Product identifier

Product name : Magnesium sulfate heptahydrate

SDS-number : 000000020691

Type of product : Substance

Remarks : A registration number is not available for this substance as the substance or its uses are exempted from registration in accordance to the Article 2 (7)(b) of the REACH Regulation (EC) No 1907/2006

Document according to Art. 32 of Regulation (EC) 1907/2006.

Chemical name : Magnesium sulfate-7-hydrate

CAS-No. : 10034-99-8

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 International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
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Telephone :
For further information, please contact: : SafetyDataSheet@Honeywell.com

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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. Show this safety data sheet to the doctor in attendance.

Inhalation:

If inhaled, remove to fresh air. If symptoms persist, call a physician.

Skin contact:

After contact with skin, wash immediately with plenty of water. If symptoms persist, call a physician.

Eye contact:

Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. If eye irritation persists, consult a specialist.

Ingestion:

Immediately give large quantities of water to drink. If accidentally swallowed obtain immediate medical attention.

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

Treat symptomatically.

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

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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

Fire may cause evolution of:
Sulphur trioxide

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

Ensure adequate ventilation. Wear personal protective equipment. Unprotected persons must be kept away.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

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

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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:

Do not breathe dust. Provide exhaust ventilation if dust is formed. Wear suitable protective clothing and gloves.

Advice on protection against fire and explosion:

Normal measures for preventive fire protection.

Hygiene measures:

Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions:

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

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
Magnesium sulfate-7-	Workers /		37,6 mg/m3	Inhalation	

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hydrate	Long-term systemic effects				
Magnesium sulfate-7-hydrate	Workers / Long-term systemic effects		21,3mg/kg bw/d	Skin contact	
Magnesium sulfate-7-hydrate	Consumers / Long-term systemic effects		11,1 mg/m3	Inhalation	
Magnesium sulfate-7-hydrate	Consumers / Long-term systemic effects		12,8mg/kg bw/d	Skin contact	
Magnesium sulfate-7-hydrate	Consumers / Long-term systemic effects		12,8mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
Magnesium sulfate-7-hydrate	Fresh water: 0,68 mg/l	Assessment factor: 1000
Magnesium sulfate-7-hydrate	Marine water: 0,068 mg/l	Assessment factor: 10000
Magnesium sulfate-7-hydrate	Sewage treatment plant: 10 mg/l	Assessment factor: 10

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, 511; safety shoes EN-ISO 20345.

Do not breathe dust.

Engineering measures

Use with local exhaust ventilation.

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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

Physical state : solid

Colour : colourless

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Odour	:	odourless
molecular weight	:	246,47 g/mol
Flammability	:	The product is not flammable.
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Loss of water of crystallization on heating.
pH	:	5,0 - 9,2 at 25 °C
Auto-ignition temperature	:	not auto-flammable
Viscosity, kinematic	:	Not applicable
Water solubility	:	completely soluble
Partition coefficient: n-octanol/water	:	No data available
Density	:	ca. 1,68 g/cm ³ at 20 °C
Bulk density	:	ca. 1.060 kg/m ³

9.2 Other Information

Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Evaporation rate	:	No data available
Viscosity, dynamic	:	Not applicable

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Loss of water of crystallization on heating.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Protect against water.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Sulphur oxides
Magnesium oxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

LD50

Species: Rat

Value: > 2.000 mg/kg

Method: OECD Test Guideline 425

REACH dossier "read-across"

Acute dermal toxicity:

LD50

Species: Rat

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Value: > 2.000 mg/kg
Method: OECD Test Guideline 402
REACH dossier "read-across"

Acute inhalation toxicity:
No data available

Skin irritation:
Not classified due to data which are conclusive although insufficient for classification.

Eye irritation:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405
REACH dossier "read-across"

Respiratory or skin sensitisation:
Mouse local lymph node assay
Species: Mouse
Result: Did not cause sensitisation on laboratory animals.
Method: OECD Test Guideline 429

Carcinogenicity:
Species: not specified
Note: No data available
Germ cell mutagenicity:
Note: Not classified due to data which are conclusive although insufficient for classification.

Reproductive toxicity:
Species: not specified
Remarks: Not classified due to data which are conclusive although insufficient for classification.

Aspiration hazard:
No data available

11.2. Information on other hazards

Endocrine disrupting properties
No data available

Other information:
Toxicological data applies only to the water free substance.

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SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:

LC50

Species: Pimephales promelas (fathead minnow)

Value: 680 mg/l

Exposure time: 96 h

REACH dossier "read-across"

Toxicity to aquatic plants:

Not classified due to data which are conclusive although insufficient for classification.

Toxicity to Microorganisms:

EC50

Species: Bacteria

Value: 84 mg/l

Exposure time: 30 min

Test substance: anhydrous substance

Toxicity to aquatic invertebrates:

EC50

Species: Daphnia magna (Water flea)

Value: 720 mg/l

Exposure time: 48 h

REACH dossier "read-across"

12.2. Persistence and degradability

Biodegradability:

The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

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12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

The product causes no biological oxygen consumption.

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

14.1 UN number

ADR/RID:Not dangerous goods IMDG:Not dangerous goods IATA:Not dangerous goods

14.2 UN proper shipping name

ADR/RID:Not dangerous goods
IMDG:Not dangerous goods
IATA:Not dangerous goods

14.3 Transport hazard class(es)

14.4 Packaging group

14.5 Environmental hazards

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ADR/RID: no

Marine pollutant: no

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of $\geq 0.1\%$ (w/w).

Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	800250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051

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Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
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	
Latvia	+37167042473

Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
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. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

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

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New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
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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