

Aluminum sulfate hydrate**11044-1KG**

Version 1.1

Revision Date 12/03/2021

Print Date 05/11/2023

SECTION 1. IDENTIFICATION

Product name : Aluminum sulfate hydrate

Number : 000000021303

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : crystalline

Color : colourless

Odor : odourless

Classification of the substance or mixture

Classification of the substance : Serious eye damage, Category 1
or mixture

GHS Label elements, including precautionary statements

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Symbol(s)

:



Signal word

: Danger

Hazard statements

: Causes serious eye damage.

Precautionary statements

: **Prevention:**

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER/ doctor.

Hazards not otherwise classified

: Repeated or prolonged exposure may irritate eyes, skin and respiratory system.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula

: $\text{Al}_2\text{O}_3 \cdot 18\text{H}_2\text{O}$

Chemical nature

: Substance

Chemical name	CAS-No.	Concentration
Aluminium sulfate-18-hydrate	7784-31-8	100.00 %

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SECTION 4. FIRST AID MEASURES

- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
- 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.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Protect unharmed eye. Call a physician immediately.
- Ingestion : Rinse mouth with water. Call a physician immediately.

Notes to physician

- Most important symptoms/effects, acute and delayed : No information available.
- Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry powder
- Specific hazards during firefighting : Fire may cause evolution of:
Sulphur oxides
- Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
- Further information : Use extinguishing measures that are appropriate to local

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circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons must be kept away.
Provide adequate ventilation.
Avoid dust formation.

Environmental precautions : Should not be released into the environment.

Methods and materials for containment and cleaning up : Use mechanical handling equipment.
Sweep up and shovel into suitable containers for disposal.
Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.
Avoid inhalation, ingestion and contact with skin and eyes.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities : Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.

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Avoid breathing dust.
Avoid contact with skin, eyes and clothing.

- Engineering measures : Use with local exhaust ventilation.
- Eye protection : Safety goggles
- Hand protection : Latex gloves
Gloves must be inspected prior to use.
Replace when worn.
- Skin and body protection : Wear suitable protective equipment.
Wear as appropriate:
Protective suit
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hygiene measures : Take off all contaminated clothing immediately.
Remove and wash contaminated clothing before re-use.
Keep working clothes separately.
Wash hands before breaks and at the end of workday.
When using do not eat or drink.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Aluminium sulfate-18-hydrate	7784-31-8	TWA : Time weighted average	1 mg/m ³	2009	ACGIH:US. ACGIH Threshold Limit Values, as amended
Further information	:	Form of exposure : Respirable fraction.			

Aluminium sulfate-18-hydrate	7784-31-8	REL : Recommended exposure limit (REL):	2 mg/m ³	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Further information	:	Expressed as : as Al			

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Aluminium sulfate-18-hydrate	7784-31-8	TWA : Time weighted average	2 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Further information	:	Expressed as : as Al			

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: crystalline
Color	: colourless
Odor	: odourless
Odor threshold	: Note: No data available
pH	: 3.0 - 4.0 at , 20 °C
Melting point (decomposition)	: 87 °C
Boiling point/boiling range	: Note: No data available
Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Flammability	: The product is not flammable.
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapor pressure	: Note: No data available

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Vapor density	: Note: No data available
Density	: ca. 1.7 g/cm ³ at 20 °C
Water solubility	: Note: completely soluble
Partition coefficient: n-octanol/water	: Note: Not applicable
Ignition temperature	: Note: Not applicable
Decomposition temperature	: Note: Loss of water of crystallization on heating.
Viscosity, dynamic	: Note: No data available
Viscosity, kinematic	: Note: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 666.43 g/mol
Bulk density	: ca. 700 kg/m ³

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Protect from heat/overheating.
Incompatible materials	: No data available

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Hazardous decomposition : Sulphur oxides
products

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: > 2,000 mg/kg
Species: Rat
Method: OECD Test Guideline 401

Acute inhalation toxicity : Note: No data available

Acute dermal toxicity : LD50: > 5,000 mg/kg
Species: Rabbit
Method: OECD Test Guideline 402

Skin irritation : Species: Rabbit
Result: No skin irritation
Method: OECD Test Guideline 404

Eye irritation : Species: Rabbit
Result: Risk of serious damage to eyes.
Method: OECD Test Guideline 405

Sensitisation : Mouse local lymph node assay
Species: Mouse
Result: non-sensitizing
Test substance: anhydrous substance
Method: OECD Test Guideline 429

Repeated dose toxicity : Note: Not classified due to data which are conclusive although insufficient for classification.

Genotoxicity in vitro : Test Method: In vitro gene mutation study in mammalian cells
Cell type: Mouse lymphoma cells

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Metabolic activation: with and without metabolic activation
Result: negative
Method: OECD Test Guideline 476

: Test Method: Micronucleus test
Cell type: Human lymphocytes
Metabolic activation: with and without metabolic activation
Result: negative

: Test Method: Ames test
Metabolic activation: with and without metabolic activation
Result: negative
Method: OECD Test Guideline 471

Carcinogenicity : Species: not specified
Note: Not classified due to data which are conclusive although insufficient for classification.

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

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : semi-static test
EC50: > 100 mg/l
Exposure time: 96 h
Species: Danio rerio (zebra fish)
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : static test
LC50: > 200 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Test substance: REACH dossier "read-across"
Method: OECD Test Guideline 202

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Toxicity to algae : Note: Not classified due to data which are conclusive although insufficient for classification.

Elimination information (persistence and degradability)

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

Further information on ecology**SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT Not dangerous goods

TDG Not dangerous goods

IATA Not dangerous goods

IMDG Not dangerous goods

SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemicals Act (AICC), as amended : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection : All components of this product are on the Canadian DSL

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Act (CEPA). Domestic
Substances List (DSL)

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

Korea. Existing Chemicals : On the inventory, or in compliance with the inventory
Inventory (KECI)

Philippines. Inventory of : Not in compliance with the inventory
Chemicals and Chemical
Substances (PICCS)

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

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

National regulatory information

SARA 302 Components : No chemicals in this material are subject to the reporting
requirements of SARA Title III, Section 302.

SARA 313 Components : This material does not contain any chemical components with
known CAS numbers that exceed the threshold (De Minimis)
reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards : Acute Health Hazard

CERCLA Reportable : 5000 lbs
Quantity

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California Prop. 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts RTK : Aluminium sulfate-18-hydrate 7784-31-8

New Jersey RTK : Aluminium sulfate-18-hydrate 7784-31-8

Pennsylvania RTK : Aluminium sulfate-18-hydrate 7784-31-8

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 2	2
Flammability	: 0	0
Physical Hazard	: 0	
Instability	:	0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group