

Aluminum chloride**06220-1KG**

Version 1.1

Revision Date 01/24/2022

Print Date 05/29/2023

SECTION 1. IDENTIFICATION

Product name : Aluminum chloride

Number : 000000020247

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
Seelze, 30926

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 : solid

Color : yellowish

Odor : stinging

Classification of the substance or mixture

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

GHS Label elements, including precautionary statements

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Symbol(s)

:



Signal word

: Danger

Hazard statements

: Causes severe skin burns and eye damage.

Precautionary statements

: **Prevention:**

Do not breathe dust or mist.

Wash skin thoroughly after handling.

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

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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.

Wash contaminated clothing before reuse.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified

: Reacts violently with water.

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.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : AlCl_3
Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Aluminium chloride	7446-70-0	$\geq 90.00 - \leq 100.00 \%$

SECTION 4. FIRST AID MEASURES

General advice : First aider needs to protect himself. Show this safety data sheet to the doctor in attendance.

Inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician immediately.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician immediately.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If victim is fully conscious, give a cupful of water. Call a physician immediately.

Notes to physician

Most important symptoms/effects, acute and delayed : No information available.

Indication of immediate medical attention and : Treat symptomatically.

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special treatment needed, if
necessary

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
- Unsuitable extinguishing media : Water
Reacts violently with water.
- Specific hazards during firefighting : Heating will cause pressure rise with risk of bursting
In case of a spillage, the resulting acid solution may attack many metals with liberation of hydrogen which is flammable and forms explosive mixture with air
In case of fire hazardous decomposition products may be produced such as:
Gaseous hydrogen chloride (HCl).
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear personal protective equipment. Unprotected persons must be kept away.
Wear full protective clothing and self-contained breathing apparatus.
- 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.
- Methods and materials for containment and cleaning up : Ventilate the area.
Avoid dust formation.
Protect against water.
Use mechanical handling equipment.
Sweep up and shovel into suitable containers for disposal.

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SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.
Keep container tightly closed.
Avoid dust formation.
Do not breathe dust or spray mist.
Do not get in eyes, on skin, or on clothing.

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

Storage

Conditions for safe storage, including any incompatibilities : Keep containers tightly closed in a dry, cool and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Protect from atmospheric moisture and water.
Protect from physical damage.
Store away from incompatible substances.
Container hazardous when empty.

Other data : Storage period < 12 month

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.
Avoid dust formation.

Engineering measures : Use with local exhaust ventilation.

Eye protection : Safety goggles

Hand protection : Protective gloves

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Gloves must be inspected prior to use.
Replace when worn.

Skin and body protection : Complete suit protecting against chemicals

Hygiene measures : When using, do not eat, drink or smoke.
Wash hands before breaks and immediately after handling the product.
Keep working clothes separately.
Remove and wash contaminated clothing before re-use.
Avoid dust formation.
Do not swallow.
Do not breathe dust or spray mist.
Do not get in eyes, on skin, or on clothing.
This material has an established AIHA ERPG exposure limit.
The current list of ERPG exposure limits can be found at
[http://www.aiha.org/insideaiha/GuidelineDevelopment/ERPG/D](http://www.aiha.org/insideaiha/GuidelineDevelopment/ERPG/Documents/2011erpgweelhandbook_table-only.pdf)
ocuments/2011erpgweelhandbook_table-only.pdf.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Aluminium chloride	7446-70-0	REL : Recommended exposure limit (REL):	2 mg/m3	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Further information	:	Expressed as : as Al			

Aluminium chloride	7446-70-0	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 : solid

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Color	: yellowish
Odor	: stinging
Odor threshold	: Note: No data available
pH	: Note: Not applicable
Melting point/range	: 190 °C at 2,500 hPa
Initial boiling point and boiling range	: Note: Not applicable
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	: < 1 hPa at 20 °C(68 °F)
Vapor density	: Note: No data available
Density	: 2.44 g/cm ³ at 20 °C
Water solubility	: Note: Decomposes in contact with water.
Solubility in other solvents	: Note: soluble

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Partition coefficient: n-octanol/water	: Note: Not applicable
Ignition temperature	: Note: Not applicable
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	: 133.3 g/mol
Sublimation point	: 181.2 °C
Bulk density	: ca. 1,200 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	: Reacts violently with water. Hazardous polymerisation does not occur.
Conditions to avoid	: Protect from atmospheric moisture and water. Avoid dust formation. Corrodes metals in the presence of water or moisture.
Incompatible materials	: Allyl Chloride Ethylene Ethylene oxide Nitrobenzene Phenol Nitromethane Organic materials Oxygen difluoride Perchloryl fluoride Benzene

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Potassium
Sodium
Water
Bases
Reacts violently with water.
The product gets hot as it first adsorbs water.
Reactions with damp air.

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
Chlorine
Hydrogen chloride gas

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: 3,470 mg/kg
Species: Rat, female

: LD50: 3,450 mg/kg
Species: Rat, male

Acute inhalation toxicity : Note: No data available

Acute dermal toxicity : Note: Toxicity is determined by the corrosivity of the product.

Skin irritation : Species: Rabbit
Classification: Corrosive

Sensitisation : Species: Guinea pig
Classification: non-sensitizing

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : LC50: 27.1 mg/l
Exposure time: 96 h
Species: Gambusia affinis (Mosquito fish)

Toxicity to daphnia and other aquatic invertebrates : static test
EC50: 27.3 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

: Reproduction Test
NOEC: 0.8 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

: static test
EC50: 7.4 mg/l
Exposure time: 48 h
Species: Ceriodaphnia (water flea)

Toxicity to algae : Note: No data available

Further information on ecology

Additional ecological information : Harmful to aquatic organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

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

SECTION 14. TRANSPORT INFORMATION

DOT UN/ID No. : UN 1726

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Proper shipping name : ALUMINIUM CHLORIDE, ANHYDROUS
Class : 8
Packing group : II
Hazard Labels : 8

IATA UN/ID No. : UN 1726
Description of the goods : ALUMINIUM CHLORIDE, ANHYDROUS
Class : 8
Packaging group : II
Hazard Labels : 8
Packing instruction (cargo aircraft) : 863
Packing instruction (passenger aircraft) : 859
Packing instruction (passenger aircraft) : Y844

IMDG UN/ID No. : UN 1726
Description of the goods : ALUMINIUM CHLORIDE, ANHYDROUS
Class : 8
Packaging group : II
Hazard Labels : 8
EmS Number : F-A, S-B
Marine pollutant : no
IMDG Code segregation group 1 – ACIDS,

SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances : On TSCA Inventory
Control Act

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

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

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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

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

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** : No SARA Hazards**CERCLA Reportable Quantity** :**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 chloride 7446-70-0

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New Jersey RTK	: Aluminium chloride	7446-70-0
Pennsylvania RTK	: Aluminium chloride	7446-70-0

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 3	3
Flammability	: 0	0
Physical Hazard	: 2	
Instability	:	2
Special hazard	:	W

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