

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1 Product identifiers

Product name: **ALUMINIUM CHLORIDE 6 WATER**

CAS-No.: **7784-13-6**

Product Number: **A65699**

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

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR,
UNITED KINGDOM

Telephone: +44 (0)845 1200 506 Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

1.4 Emergency telephone number

Emergency Phone #: **+44 (0)845 1200 506**

2. HAZARDS IDENTIFICATION
2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin corrosion (Category 1B)

According to European Directive 67/548/EEC as amended.

Causes burns.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram:



Signal word: DANGER

Hazard statement(s)

H314 Causes severe skin burns and eye damage.

Precautionary statement(s) None

Hazard symbol(s)

C Corrosive

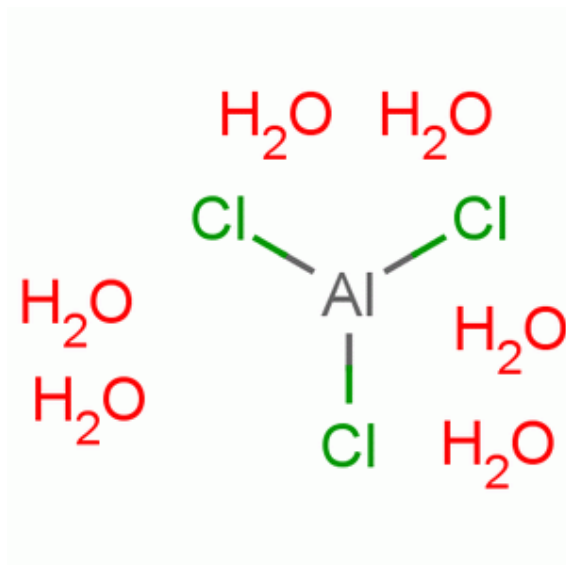
R-phrase(s)	
R34	Causes burns.
S-phrase(s)	
S22	Do not breathe dust.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60	This material and its container must be disposed of as hazardous waste.
2.3 Other hazards – none	

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Aluminium chloride hexahydrate (*Synonyms:* Aluminium chloridehexahydrate; Aluminium Trichloride; Trichloroalumane; Trichloridoaluminium)

Formula: **$\text{AlCl}_3 \cdot 6\text{H}_2\text{O}$**



Molecular Weight: **241.43g/mol**

Component Concentration: -

CAS-No.: **7784-13-6**

EC-No.: **231-208-1**

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact:

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact:

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

If swallowed:

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

no data available.

4.3 Indication of immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

no data available

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

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

Caution: the anhydrous form of this material has been reported to have the following hazards associated with it.

Prolonged storage of anhydrous aluminium chloride in closed containers has resulted in spontaneous decomposition and occasional explosion upon opening the container probably due to the diffusion of moisture into the container with resulting pressure build-up due to liberated hydrogen chloride gas.

When heated in a sealed tube, high internal pressure may be generated due to not only its vapour pressure and pressure of desorbed hydrogen chloride, but also by the near doubling in volume which occurs when the material melts to the monomer.

Mixtures of nitrobenzene and aluminium chloride are thermally unstable and may lead to explosive decomposition due to a multi-step decomposition reaction occurring above 90°C, which self accelerates with high exothermicity producing azo- and azoxypolymers.

Violent exothermic reactions can occur upon aluminium chloride contacting: alkenes, a mixture of benzoyl chloride and naphthalene, a mixture of aniline and ethyleneimine, ethylene oxide, a mixture of sodium peroxide and aluminium.

Aluminium chloride reacts explosively with: oxygen difluoride, phenyl azide, perchloryl benzene or sodium borohydride.

Moisture sensitive.

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

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

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

11. TOXICOLOGICAL INFORMATION

11.1 *Information on toxicological effects*

Acute toxicity

LD50 Oral - rat - 3,311 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

Genotoxicity in vitro - Mammal – lymphocyte; DNA damage.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Developmental Toxicity - mouse – Intravenous; Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Other developmental abnormalities.

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion May be harmful if swallowed. Causes burns.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye burns.

Signs and Symptoms of Exposure

Cough, Shortness of breath, Headache, Nausea, Vomiting

Additional Information

RTECS: BD0530000

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates:

Toxicity to fish LC50 - other fish - 27.1 mg/l - 96 h

EC50 - *Daphnia magna* (Water flea) - 27.3 mg/l - 48 h

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

no data available

12.6 Other adverse effects

May be harmful to aquatic organisms due to the shift of the pH. Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN-Number

ADR/RID: 3260 IMDG: 3260 IATA: 3260

14.2 UN proper shipping name

ADR/RID: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (ALUMINIUM CHLORIDE HEXAHYDRATE)

IMDG: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (ALUMINIUM CHLORIDE HEXAHYDRATE)

IATA: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (ALUMINIUM CHLORIDE HEXAHYDRATE)

14.3 Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for users

EMS-No: F-A, S-B

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

15.2 Chemical Safety Assessment

no data available

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3

H314 Causes severe skin burns and eye damage.

Skin Corr. Skin