

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

# SAFETY DATA SHEET

Version: v1

Revision Date: 2024-03-06

Print Date: 2024-03-06

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

### 1.1 Product identifiers

Product name : Aluminum chloride solution  
Product Number : A433482  
Brand : aladdin  
CAS-No. : 7446-70-0(nitrobenzene)

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

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Flammable liquid (Class 4), H227  
Acute toxicity, oral (Class 3), H301  
Acute toxicity, inhalation (Class 3), H331  
Acute toxicity, transdermal (Class 3), H311  
Skin corrosion/irritation (Category 1B), H314  
Severe eye injury/eye irritation (Category 1), H318  
Carcinogenicity (Category 2), H351  
Reproductive toxicity (Category 1B), H360  
Specific target organ systemic toxicity (repeated exposure) (Category 1), H372  
Acute (short-term) aquatic hazards (Category 2), H401  
Long term aquatic hazards (Category 2), H411

### 2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H227	Combustible liquid
H314	Causes severe skin burns and eye damage
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled
Precautionary statement(s)	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P391	Collect spillage.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P308+P313	IF exposed or concerned: Get medical advice/attention.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to an approved waste disposal plant.
P301+P310+P330	IF SWALLOWED: Rinse mouth.Immediately call a POISON CENTER/doctor/.
P304+P340+P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305+P351+P338+P310	IF IN EYES: Rinse cautiously with water for several minutes. If contact lenses are worn and can be easily removed, remove Contact lenses. Continue rinsing. Immediately call an emergency center/doctor.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: no data available
Formula	: AlCl <sub>3</sub>
Molecular weight	: 133.34
CAS No.	: 7446-70-0(nitrobenzene)
EC-NO.	: 231-208-1

Component	Classification	Concentration
Aluminum chloride solution	no data available	1.0 M in nitrobenzene

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice

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

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

In case of skin contact

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

In case of eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

If swallowed

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

no data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

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Suitable extinguishing media  
Carbon dioxide (CO<sub>2</sub>) dry powder  
Unsuitable extinguishing media  
Water foam

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides Nitrogen oxides Hydrogen chloride gas Aluminum oxide A mixture with combustible components. Vapour is heavier than air, so it can spread across the ground. Do not come into contact with the following substances: water Under rapid heating, it forms an explosive mixture with air When a fire occurs, it may cause the production of hazardous gases or vapors

## 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

## 5.4 Further information

no data available

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Operators should be specially trained and strictly abide by the operating procedures. Operation and disposal should be carried out in a place with local ventilation or general ventilation facilities. Avoid eye and skin contact and avoid breathing vapor. See Section 8 for personal protective measures. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. If canning is required, the flow rate should be controlled, and there should be a grounding device to prevent the accumulation of

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static electricity. Avoid contact with incompatible substances such as oxidizing agents (see section 10 for incompatible substances). When handling, it should be lightly loaded and unloaded to prevent damage to packaging and containers. Empty containers may be harmful residues. Wash hands after use and prohibit eating or drinking in the workplace. Equipped with the corresponding variety and quantity of fire fighting equipment and leakage emer

## 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool and ventilated warehouse.

## 7.3 Specific end use(s)

no data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 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

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(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 Regulation (EU)2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., 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 fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection,use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN(EU).

Control of environmental exposure

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

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## SECTION 9: Physical and chemical properties

Phone: +1 (833) 552-7181 Email: QualityAssurance@aladdinsci.com Website: <https://www.aladdinsci.com/>

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## 9.1 Information on basic physical and chemical properties

a) Appearance	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	1.249g/mL at 25°C
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

## 9.2 Other safety information

no data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Sensitive to moisture

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Strong heating Moisture

### 10.5 Incompatible materials

no data available

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## 10.6 Hazardous decomposition products

no data available

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

Oral: No data available

Acute toxicity estimated orally -111.59 mg/kg

(Calculation method)

Symptoms: Swallowing can cause severe burns to the mouth and throat, and there is a risk of esophageal and gastric perforation.

Acute toxicity estimate inhalation -4 hours -3.15 mg/l - vapor (calculation method)

Symptoms: Possible symptoms: Mucosal irritation, cough, shortness of breath, possible damage: Damage to respiratory tract

Acute toxicity estimated transdermal -851.06 mg/kg

(Calculation method)

Skin corrosion/irritation

The mixture can cause burns.

Serious eye damage/eye irritation

Mixtures can cause serious eye injuries.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Evidence of carcinogenic effects.

Reproductive toxicity

May harm the fetus. It can damage fertility.

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

Long term or repeated exposure to mixtures can cause organ damage- blood

Aspiration hazard

no data available

Additional Information

This substance causes significant damage to mucosal tissue, upper respiratory tract, eyes, and skin., Spasms, inflammation, sore throat, spasms, inflammation, bronchitis, pneumonia, pulmonary edema, burning sensation: cough, wheezing, laryngitis, shortness of breath, headache, nausea

Other dangers cannot be ruled out.

This substance needs to be handled with special caution

Operate according to good industrial hygiene and safety regulations.

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**SECTION 12: Ecological information****12.1 Toxicity****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**

no data available

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**SECTION 13:****13.1 Disposal considerations**

Product

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur.

Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Dispose of as unused product.

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**SECTION 14: Transport information**

DOT (US)

UN number: 2922

Packing group: II

Class: 8 (6.1)

Proper shipping name: Corrosive liquid, toxic, not otherwise specified

Reportable Quantity(RQ): no data available

Poison Inhalation Hazard: no data available

(nitrobenzene, aluminum chloride (iii))

Environmental Hazards: no

IMDG

UN number: 2922

Packing group: II

EMS-No: no data available

Proper shipping name: Corrosive liquid, toxic, not otherwise specified (nitrobenzene, aluminum chloride (iii))

IATA

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UN number: 2922

Packing group: II

Class: 8 (6.1)

Proper shipping name: Corrosive liquid, toxic, not otherwise specified (nitrobenzene, aluminum chloride (iii))

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## SECTION 15: Regulatory information

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

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## SECTION 16: Other information

<b>Prepared By</b>	Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com
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