

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Mixture  
 Trade name : ALUMINIUM STANDARD SOLUTION (0.5N HCl)  
 UN-No. (ADR) : 3264  
 Product code : 201056x

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

Recommended uses and restrictions : For laboratory use only

#### 1.3. Supplier's details

Labchem (Pty)Ltd  
 6 Wakefield Road  
 Founders Hill  
 1609 Johannesburg - South Africa  
 T +27 11 452 1116 - F +27 86 588 0293  
[techlab@labchem.co.za](mailto:techlab@labchem.co.za) - [www.labchem.co.za](http://www.labchem.co.za)

#### 1.4. Emergency telephone number

Emergency number : +27 11 452 1116

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to the United Nations GHS

Skin corrosion/irritation, Category 1 H314

Full text of H statements : see section 16

#### 2.2. Label elements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS-ZA) :



GHS05

Signal word (GHS-ZA) : Danger

Hazardous ingredients : Aluminium chloride, anhydrous; hydrogen chloride, conc=37%, aqueous solution

Hazard statements (GHS-ZA) : H314 - Causes severe skin burns and eye damage.

Precautionary statements (GHS-ZA) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
 P264 - Wash hands, forearms and face thoroughly after handling.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 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/shower.  
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 - Immediately call a POISON CENTER or doctor.  
 P321 - Specific treatment (see supplemental first aid instruction on this label).  
 P363 - Wash contaminated clothing before reuse.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 2.3. Other hazards

Adverse physicochemical, human health and environmental effects : Causes severe skin burns and eye damage.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

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According to SANS 10234:2019 and SANS 11014:2010

### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Aluminium chloride, anhydrous	(CAS-No.) 7446-70-0	≤ 5	Skin Corr. 1B, H314 Aquatic Acute 3, H402
hydrogen chloride, conc=37%, aqueous solution	(CAS-No.) 7647-01-0	≤ 2	Skin Corr. 1, H314

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

No additional information available

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.  
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

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According to SANS 10234:2019 and SANS 11014:2010

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

hydrogen chloride, conc=37%, aqueous solution (7647-01-0)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Hydrogen chloride
OEL STEL (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
OEL STEL (ppm)	5 ppm
Regulatory reference	Government Notice. R: 1179

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Protective gloves  
Eye protection : Safety glasses  
Skin and body protection : Wear suitable protective clothing  
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

#### Personal protective equipment symbol(s):



#### 8.4. Exposure limit values for the other components

No additional information available

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Appearance : Translucent.  
Colour : Colourless.  
Odour : No data available  
Odour threshold : No data available  
pH : No data available  
pH solution : No data available  
Relative evaporation rate (butylacetate=1) : No data available  
Relative evaporation rate (ether=1) : No data available  
Melting point : Not applicable  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : Not applicable  
Vapour pressure : No data available  
Vapour pressure at 50 °C : No data available  
Relative vapour density at 20 °C : No data available  
Relative density : No data available  
Relative density of saturated gas/air mixture : No data available  
Density : No data available  
Relative gas density : No data available  
Solubility : No data available  
Partition coefficient n-octanol/water (Log Pow) : No data available  
Partition coefficient n-octanol/water (Log Kow) : No data available  
Viscosity, kinematic : No data available

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According to SANS 10234:2019 and SANS 11014:2010

Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Assumed to cause serious eye damage
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: Before neutralisation, the product may represent a danger to aquatic organisms.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

#### Aluminium chloride, anhydrous (7446-70-0)

EC50 Daphnia 1	27.3 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	1.05 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h algae (2)	0.2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

#### hydrogen chloride, conc=37%, aqueous solution (7647-01-0)

LC50 fish 1	282 mg/l (96 h, Gambusia affinis, Pure substance)
EC50 Daphnia 1	< 56 mg/l (72 h, Daphnia magna, Pure substance)
Partition coefficient n-octanol/water (Log Pow)	0.25 (QSAR)

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### 12.2. Persistence and degradability

#### ALUMINIUM STANDARD SOLUTION (0.5N HCl)

Persistence and degradability : No additional information available

#### hydrogen chloride, conc=37%, aqueous solution (7647-01-0)

Persistence and degradability : Biodegradability: not applicable.

Chemical oxygen demand (COD) : Not applicable

ThOD : Not applicable

BOD (% of ThOD) : Not applicable

### 12.3. Bioaccumulative potential

#### ALUMINIUM STANDARD SOLUTION (0.5N HCl)

Bioaccumulative potential : No additional information available

#### hydrogen chloride, conc=37%, aqueous solution (7647-01-0)

Partition coefficient n-octanol/water (Log Pow) : 0.25 (QSAR)

Bioaccumulative potential : Low potential for bioaccumulation (Log Kow < 4).

### 12.4. Mobility in soil

#### ALUMINIUM STANDARD SOLUTION (0.5N HCl)

Mobility in soil : No additional information available

#### hydrogen chloride, conc=37%, aqueous solution (7647-01-0)

Partition coefficient n-octanol/water (Log Pow) : 0.25 (QSAR)

Ecology - soil : No (test) data on mobility of the components available. May be harmful to plant growth, blooming and fruit formation.

### 12.5. Other adverse effects

Ozone : Not classified

Other adverse effects : No additional information available




## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
<b>14.1. UN number</b>		
3264	3264	3264
<b>14.2. Proper Shipping Name</b>		
CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	Corrosive liquid, acidic, inorganic, n.o.s.
<b>14.3. Transport hazard class(es)</b>		
8	8	8
		 Not applicable
<b>14.4. Packing group</b>		
III	III	III
<b>14.5. Environmental hazards</b>		
Dangerous for the environment : No	Dangerous for the environment : No :	Dangerous for the environment : No
No supplementary information available		

### 14.6. Special precautions for user

#### - SANS

Special provisions (SANS) : 223, 274

Limited quantities (SANS) : 5 L

Limited quantities (SANS) : 5 L

Packagings, large packagings and IBCs : P001, IBC03, LP01

Packing instructions (SANS)

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According to SANS 10234:2019 and SANS 11014:2010

Portable tank and bulk containers instructions (SANS) : T7  
Portable tank and bulk container special provisions (SANS) : TP1, TP28

### - IMDG

Special provisions (IMDG) : 223, 274  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T7  
Tank special provisions (IMDG) : TP1, TP28  
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE  
EmS-No. (Spillage) : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES  
Stowage category (IMDG) : A  
Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

### - IATA

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y841  
PCA limited quantity max net quantity (IATA) : 1L  
PCA packing instructions (IATA) : 852  
PCA max net quantity (IATA) : 5L  
CAO packing instructions (IATA) : 856  
CAO max net quantity (IATA) : 60L  
Special provisions (IATA) : A3, A803  
ERG code (IATA) : 8L

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health, and environmental national regulations specific for the product

Regulatory reference : SANS 10234:2008; SANS 11014:2010; SANS 10228:2012; SANS 10229:2010; SANS 10232(1,2,4), SANS 10231:2018; Occupational Health and Safety Act 85 of 1993; National Road Traffic Act 93 of 1996.

## SECTION 16: Other information

Issue date : 23/07/2020  
Revision date : 23/07/2025

Full text of H-statements:

H314	Causes severe skin burns and eye damage.
H402	Harmful to aquatic life

SDS South Africa

*The data provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge. The data relates to the specific product as named and is intended as a guide to the safe handling of the product in all its facets. The data may no longer be valid if the product is used in any process or in combination with other products. This SDS is not a quality specification nor any form of guarantee.*