1. Identification

Product identifier

Aluminum (Al) – AA Standard (1000 µg/ml)

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

Use of the substance/mixture

Laboratory chemicals
Only for laboratory and analysis purposes.
Industrial uses: Uses of substances as such or in preparations at industrial sites
Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet

Company name:	Analytichem Services Unipessoal Lda
Street:	Praça de Mouzinho de Albuquerque 113 5º
Place:	P-4100-359 Porto
Contact person:	SDS service department
E-mail:	SDS@analytichem.com
Responsible Department:	SDS service department

Supplier or manufacturer details

Company name:	AnalytiChem Canada Inc. Québec, CANADA		
Street:	21800 Clark Graham Ave		
Place:	CDN-H9X 4B6 Baie-D'Urfé		
Telephone:	+1 (800) 361-6820	Telefax:	+1 (800) 253-5549
Contact person:	SDS service department		
E-mail:	SDS@analytichem.com		
Responsible Department:	SDS service department		

Emergency telephone number: 1-703-741-5970 (CHEMTREC)

Further Information

No data available

2. Hazard identification

Classification of the substance or mixture

WHMIS 2015

Substance or mixture corrosive to metals: Met. Corr. 1
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Dam. 1

Label elements

WHMIS 2015

Signal word: Danger

Pictograms:

Hazard statements

May be corrosive to metals.
Causes skin irritation.
Causes serious eye damage.

Precautionary statements

Keep only in original packaging.
Wash hands and face thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN: Wash with plenty of water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
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.
Absorb spillage to prevent material-damage.
Store in corrosive resistant container with a resistant inner liner.

Other hazards

No data available

3. Composition/information on ingredients

Mixtures

Chemical characterization

Mixtures in aqueous solution

Relevant ingredients

CAS No	Chemical name	Quantity
7647-01-0	Hydrochloric acid	1 - < 5% (*)

(*) The actual concentration is withheld as a trade secret.

Further Information

No data available

4. First-aid measures

Description of first aid measures

General information

Self-protection of the first aider
Take off immediately all contaminated clothing and wash it before reuse.

After inhalation

Provide fresh air.
Call a doctor if you feel unwell.

After contact with skin

Wash immediately with: Water
Take off immediately all contaminated clothing and wash it before reuse.
In case of skin irritation, consult a physician.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
Remove contact lenses, if present and easy to do. Continue rinsing.
Protect uninjured eye.

After ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting. Do not allow a neutralisation agent to be drunk.
Call a physician immediately.

Most important symptoms and effects, whether acute or delayed

Irritant

Indication of immediate medical attention and special treatment needed

No data available

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

Specific hazards arising from the hazardous product

Non-combustible liquids
Hazardous combustion products
In case of fire may be liberated:
Hydrochloric gas

Special protective equipment and precautions for fire-fighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.
Avoid contact with skin, eyes and clothes.
In case of fire: Wear self-contained breathing apparatus.
In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Use water spray jet to protect personnel and to cool endangered containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

Corrosive to metals.

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Consult an expert
Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

For containment

Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Collect in closed and suitable containers for disposal.
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Use personal protection equipment.
Provide adequate ventilation. Avoid contact with skin, eyes and clothes.
Do not breathe vapour/aerosol. Use extractor hood (laboratory).

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

Further information on handling

Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary.
Take off immediately all contaminated clothing and wash it before reuse.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Corrosive to metals.
Unsuitable container/equipment material: Metal
Keep container tightly closed.

Hints on joint storage

National regulations

Further information on storage conditions

Unsuitable container/equipment material: Metal

8. Exposure controls/Personal protection

Control parameters

Exposure limits (ACGIH)

CAS No	Chemical name	ppm	mg/m³		Category	Origin
7647-01-0	Hydrogen chloride	2			Peak	ACGIH-2024

Additional advice on limit values

Observe in addition any national regulations!

Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Do not breathe vapour/aerosol.

Individual protection measures, such as personal protective equipment

Eye/face protection

Face protection shield
goggles.

Hand protection

Tested protective gloves must be worn
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection

Tested protective gloves must be worn
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Thermal hazards

No data available

Environmental exposure controls

Do not allow to enter into surface water or drains.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	clear
Odour:	odourless
Odour threshold:	No data available
Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower explosive limits:	No data available
Upper explosive limits:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	No data available
Viscosity / kinematic:	No data available
Water solubility:	easily soluble

Solubility in other solvents

No data available

Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available

Vapour pressure:	No data available
Vapour pressure:	No data available
Density (at 23 °C):	~1.010 g/cm³
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

Other information

Information with regard to physical hazard classes

Explosive properties

No data available

Sustaining combustion:	No data available

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	0%
Solid content:	0%
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available

No data available:

Viscosity / dynamic:	No data available
Flow time:	No data available

Further Information

Corrosive to metals

10. Stability and reactivity

Reactivity

Corrosive to metals.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

The product develops hydrogen in an aqueous solution in contact with metals.

Conditions to avoid

Heat

Incompatible materials

Keep away from: Metal.

The product develops hydrogen in an aqueous solution in contact with metals.

Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

Further information

No data available

11. Toxicological information

Information on toxicological effects

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Causes serious eye damage.

Sensitizing effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

There are no data available on the mixture itself.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

Information on other hazards

Endocrine disrupting properties

There are no data available on the mixture itself.

Other information

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

12. Ecological information

Ecotoxicity

There are no data available on the mixture itself.

Persistence and degradability

There are no data available on the mixture itself.

Bioaccumulative potential

There are no data available on the mixture itself.

Mobility in soil

There are no data available on the mixture itself.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects

Discharge into the environment must be avoided.

Further information

Do not empty into drains.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Send to a physico-chemical treatment facility under observation of official regulations.
Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

14. Transport information

Canadian TDG

UN number:	UN 3264
Proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(hydrochloric acid)
Hazard classes:	8
Packing group:	III
Hazard label:	8
Limited quantity:	5 L

Marine transport (IMDG)

UN number or ID number:	UN 3264
United Nations proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(hydrochloric acid)
Transport hazard class(es):	8
Packing group:	III
Hazard label:	8
Special Provisions:	223 274
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-B
Segregation group:	1 - acids

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:	UN 3264
United Nations proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(hydrochloric acid)
Transport hazard class(es):	8
Packing group:	III
Hazard label:	8
Special Provisions:	A3 A803
Limited quantity Passenger:	1 L

Passenger LQ:	Y841	
Excepted quantity:	E1	
IATA-packing instructions - Passenger:		852
IATA-max. quantity - Passenger:		5 L
IATA-packing instructions - Cargo:		856
IATA-max. quantity - Cargo:		60 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

15. Regulatory information

Canadian regulations

16. Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,3,4,5,7,9,14.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.
The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.
The receiver of our product is singularly responsible for adhering to existing laws and regulations.
Provide appropriate information, instructions and training to users

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)