# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

**Revision date** 24-Jul-2024 **Revision Number** 1.01

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

### 1.1. Product identifier

**Product Code(s)** 5190-8256

**Product Name** Aluminum AA Standard: 1000 µg/mL Al in 5% HCl [100ml bottle]

**Form** Not applicable

**Pure substance/mixture** Mixture

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

**Recommended use** Reagents and Standards for Analytical Chemical Laboratory Use

**Uses advised against** No information available

### 1.3. Details of the supplier of the safety data sheet

**Supplier**

Agilent Technologies LDA UK Ltd.
5500 Lakeside Cheadle Royal Business Park,
Cheadle, Cheshire, SK8 3GR
United Kindgom

+44 (0) 345 712 5292

For further information, please contact

**E-mail address** pdl-msds_author@agilent.com

### 1.4. Emergency telephone number

Emergency Telephone CHEMTREC®: +44 20 3807 3798

| **Emergency Telephone - §45 - (EC)1272/2008** | |
|---|---|
| **Europe** | **112** |
| **Austria** | No information available |
| **Bulgaria** | |
| **Croatia** | |
| **Cyprus** | |
| **Czech Republic** | |
| **Denmark** | |

| | |
|---|---|
| **France** | |
| **Hungary** | |
| **Ireland** | |
| **Italy** | |
| **Lithuania** | |
| **Luxembourg** | |
| **Netherlands** | |
| **Norway** | |
| **Portugal** | |
| **Romania** | |
| **Slovakia** | |
| **Slovenia** | |
| **Spain** | |
| **Sweden** | |
| **Switzerland** | |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

*Classification according to*
*Regulation (EC) No. 1272/2008 [CLP]*

| | |
|---|---|
| **Corrosive to metals** | Category 1 - (H290) |

### 2.2. Label elements



**Signal word**
Warning

**Hazard statements**
H290 - May be corrosive to metals

**Precautionary Statements - EU (§28, 1272/2008)**
P390 - Absorb spillage to prevent material damage
P201 - Obtain special instructions before use
P234 - Keep only in original container
P406 - Store in corrosive resistant stainless steel container with a resistant inner liner

### 2.3. Other hazards

Causes mild skin irritation.

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors.

| Chemical name | EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation | EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances |
|---|---|---|
| Hydrochloric acid | - | - |
| Aluminum | - | - |

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

**Chemical nature** aqueous solution.

| Chemical name | Weight-% | REACH registration number | EC No (EU Index No) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|---|---|---|---|---|---|---|---|
| Hydrochloric acid 7647-01-0 | 1 - <3 | - | 231-595-7 (017-002-00-2) | Met. Corr. 1 (H290) Skin Corr. 1B (H314) STOT SE 3 (H335) | Eye Irrit. 2 :: 10%<=C<25% Skin Corr. 1B :: C>=25% Skin Irrit. 2 :: 10%<=C<25% STOT SE 3 :: C>=10% | | |
| Aluminum 7429-90-5 | 0.1 - 1 | - | 231-072-3 (013-002-00-1) | Flam. Sol. 1 (H228) Water-react. 2 (H261) | | | |

**Full text of H- and EUH-phrases: see section 16**

*Acute Toxicity Estimate*

*If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components*

| Chemical name | Oral LD50 mg/kg | Dermal LD50 mg/kg | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|---|---|---|---|---|---|
| Hydrochloric acid 7647-01-0 | 238 | 5010 | No data available | No data available | 563.3022 |
| Aluminum 7429-90-5 | No data available | No data available | 0.888 | No data available | No data available |

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General advice** Show this safety data sheet to the doctor in attendance.

**Inhalation** Remove to fresh air. Get medical attention immediately if symptoms occur.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

**Skin contact** Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.

**Self-protection of the first aider** Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

**Symptoms** Prolonged contact may cause redness and irritation.

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

**Note to doctors** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

| | |
|---|---|
| **Suitable Extinguishing Media** | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| **Large Fire** | CAUTION: Use of water spray when fighting fire may be inefficient. |
| **Unsuitable extinguishing media** | Do not scatter spilled material with high pressure water streams. |

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

| | |
|---|---|
| **Specific hazards arising from the chemical** | No information available. |

### 5.3. Advice for firefighters

| | |
|---|---|
| **Special protective equipment and precautions for fire-fighters** | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |

## SECTION 6: Accidental release measures

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

| | |
|---|---|
| **Personal precautions** | Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. |
| **Other information** | Refer to protective measures listed in Sections 7 and 8. |
| **For emergency responders** | Use personal protection recommended in Section 8. |

### 6.2. Environmental precautions

| | |
|---|---|
| **Environmental precautions** | Prevent further leakage or spillage if safe to do so. |

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

| | |
|---|---|
| **Methods for containment** | Prevent further leakage or spillage if safe to do so. |
| **Methods for cleaning up** | Take up mechanically, placing in appropriate containers for disposal. |
| **Prevention of secondary hazards** | Clean contaminated objects and areas thoroughly observing environmental regulations. |

### 6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

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

**Storage Conditions** Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

### 7.3. Specific end use(s)

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Exposure Limits**

| Chemical name | European Union | Austria | Belgium | Bulgaria | Croatia |
|---|---|---|---|---|---|
| Hydrochloric acid<br>7647-01-0 | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL 10 ppm<br>STEL 15 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8.0 mg/m³<br>STEL: 10 ppm<br>STEL: 15.0 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ |
| Aluminum<br>7429-90-5 | - | TWA: 10 mg/m³<br>STEL 20 mg/m³ | TWA: 1 mg/m³ | TWA: 10.0 mg/m³<br>TWA: 1.5 mg/m³ | TWA: 10 mg/m³<br>TWA: 4 mg/m³ |

| Chemical name | Cyprus | Czech Republic | Denmark | Estonia | Finland |
|---|---|---|---|---|---|
| Hydrochloric acid<br>7647-01-0 | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 8 mg/m³<br>Ceiling: 15 mg/m³ | STEL: 5 ppm<br>STEL: 8 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | STEL: 5 ppm<br>STEL: 7.6 mg/m³ |
| Aluminum<br>7429-90-5 | - | TWA: 10.0 mg/m³ | TWA: 5 mg/m³<br>TWA: 2 mg/m³<br>STEL: 10 mg/m³<br>STEL: 4 mg/m³ | TWA: 10 mg/m³<br>TWA: 4 mg/m³ | TWA: 1.5 mg/m³ |

| Chemical name | France | Germany TRGS | Germany DFG | Greece | Hungary |
|---|---|---|---|---|---|
| Hydrochloric acid<br>7647-01-0 | STEL: 5 ppm<br>STEL: 7.6 mg/m³ | TWA: 2 ppm<br>TWA: 3 mg/m³ | TWA: 2 ppm<br>TWA: 3.0 mg/m³<br>Peak: 4 ppm<br>Peak: 6 mg/m³ | TWA: 5 ppm<br>TWA: 7 mg/m³<br>STEL: 5 ppm<br>STEL: 7 mg/m³ | TWA: 8 mg/m³<br>TWA: 5 ppm<br>STEL: 165 mg/m³<br>STEL: 10 ppm |
| Aluminum<br>7429-90-5 | TWA: 10 mg/m³<br>TWA: 5 mg/m³ | TWA: 1.25 mg/m³<br>TWA: 10 mg/m³ | TWA: 4 mg/m³<br>TWA: 1.5 mg/m³ | TWA: 10 mg/m³<br>TWA: 5 mg/m³ | TWA: 1 mg/m³ |

| Chemical name | Ireland | Italy MDLPS | Italy AIDII | Latvia | Lithuania |
|---|---|---|---|---|---|
| Hydrochloric acid<br>7647-01-0 | TWA: 8 mg/m³<br>TWA: 5 ppm<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | Ceiling: 2 ppm<br>Ceiling: 2.9 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ |
| Aluminum<br>7429-90-5 | TWA: 1 mg/m³<br>STEL: 3 mg/m³ | - | TWA: 1 mg/m³ | TWA: 2 mg/m³ | TWA: 5 mg/m³<br>TWA: 2 mg/m³<br>TWA: 1 mg/m³ |

| Chemical name | Luxembourg | Malta | Netherlands | Norway | Poland |
|---|---|---|---|---|---|
| Hydrochloric acid<br>7647-01-0 | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | Ceiling: 5 ppm<br>Ceiling: 7 mg/m³ | TWA: 5 mg/m³<br>STEL: 10 mg/m³ |
| Aluminum<br>7429-90-5 | - | - | - | TWA: 5 mg/m³<br>STEL: 10 mg/m³ | TWA: 2.5 mg/m³<br>TWA: 1.2 mg/m³ |

| Chemical name | Portugal | Romania | Slovakia | Slovenia | Spain |
|---|---|---|---|---|---|
| Hydrochloric acid<br>7647-01-0 | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³<br>Ceiling: 2 ppm | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8.0 mg/m³<br>Ceiling: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 7.6 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ |
| Aluminum<br>7429-90-5 | TWA: 1 mg/m³ | TWA: 3 mg/m³<br>TWA: 1 mg/m³<br>STEL: 10 mg/m³<br>STEL: 3 mg/m³ | TWA: 4 mg/m³<br>TWA: 1.5 mg/m³ | - | TWA: 1 mg/m³ |

| Chemical name | Sweden | Switzerland | United Kingdom |
|---|---|---|---|
| Hydrochloric acid<br>7647-01-0 | NGV: 2 ppm<br>NGV: 3 mg/m³ | TWA: 2 ppm<br>TWA: 3 mg/m³ | TWA: 1 ppm<br>TWA: 2 mg/m³ |

| | | | |
|---|---|---|---|
| | Bindande KGV: 4 ppm<br>Bindande KGV: 6 mg/m³ | STEL: 4 ppm<br>STEL: 6 mg/m³ | STEL: 5 ppm<br>STEL: 8 mg/m³ |
| Aluminum<br>7429-90-5 | NGV: 5 mg/m³<br>NGV: 2 mg/m³ | TWA: 3 mg/m³<br>TWA: 10 mg/m³ | TWA: 10 mg/m³<br>TWA: 4 mg/m³<br>STEL: 30 mg/m³<br>STEL: 12 mg/m³ |

**Biological occupational exposure limits**

| Chemical name | European Union | Austria | Bulgaria | Croatia | Czech Republic |
|---|---|---|---|---|---|
| Aluminum<br>7429-90-5 | - | Check<br>60 µg/g Creatinine (urine - Aluminum after end of work day, at the end of a work week/end of the shift)<br>( - ) | - | 200 µg/L - urine (Aluminum) - at the end of the work shift | - |

| Chemical name | Denmark | Finland | France | Germany DFG | Germany TRGS |
|---|---|---|---|---|---|
| Aluminum<br>7429-90-5 | - | - | - | 50 µg/g Creatinine (urine - Aluminum for long-term exposures: at the end of the shift after several shifts)<br>50 µg/g Creatinine - BAT (for long-term exposures: at the end of the shift after several shifts) urine<br>15 µg/g Creatinine - BAR (for long-term exposures: at the end of the shift after several shifts) urine | 50 µg/g Creatinine (urine - Aluminum for long-term exposures: at the end of the shift after several shifts) |

| Chemical name | Latvia | Luxembourg | Romania | Slovakia |
|---|---|---|---|---|
| Aluminum<br>7429-90-5 | - | - | 200 µg/L - urine (Aluminum) - end of shift | 60 µg/g creatinine (urine - Aluminum not critical) |

| Chemical name | Slovenia | Spain | Switzerland | United Kingdom |
|---|---|---|---|---|
| Aluminum<br>7429-90-5 | 50 µg/L - urine (Aluminum) - for long-term exposure: at the end of the work shift after | - | 50 µg/g creatinine (urine - Aluminum after several shifts (for long-term exposures)) | - |

| | | | | |
|---|---|---|---|---|
| | several consecutive workdays | | 0.21 µmol/mmol creatinine (urine - Aluminum after several shifts (for long-term exposures)) | |

**Derived No Effect Level (DNEL)** No information available.
**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls**

**Personal protective equipment**

**Eye/face protection** Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

**Hand protection** Wear protective Neoprene™ gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

## SECTION 9: Physical and chemical properties

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

**Physical state** Liquid
**Appearance** Liquid
**Colour** colourless
**Odour** Odourless.
**Odour threshold** No information available

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | No data available | None known |
| **Initial boiling point and boiling range** | No data available | None known |
| **Flammability** | No data available | None known |
| **Flammability Limit in Air** | | None known |
| **Upper flammability or explosive limits** | No data available | |
| **Lower flammability or explosive limits** | No data available | |
| **Flash point** | No data available | None known |
| **Autoignition temperature** | 590 °C | None known |
| **Decomposition temperature** | | None known |
| **pH** | No data available | None known |
| **pH (as aqueous solution)** | No data available | No information available |
| **Kinematic viscosity** | No data available | None known |
| **Dynamic viscosity** | No data available | None known |
| **Water solubility** | No data available | None known |
| **Solubility(ies)** | No data available | None known |
| **Partition coefficient** | No data available | None known |
| **Vapour pressure** | No data available | None known |
| **Relative density** | No data available | None known |
| **Bulk density** | No data available | |
| **Liquid Density** | No data available | |
| **Relative vapour density** | No data available | None known |
| **Particle characteristics** | | |
| **Particle Size** | No information available | |
| **Particle Size Distribution** | No information available | |

**9.2. Other information**

*9.2.1. Information with regards to physical hazard classes*
Not applicable

*9.2.2. Other safety characteristics*
No information available

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

**Reactivity** No information available.

**10.2. Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None.
**Sensitivity to static discharge** None.

**10.3. Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**10.4. Conditions to avoid**

**Conditions to avoid** Exposure to air or moisture over prolonged periods.

**10.5. Incompatible materials**

**Incompatible materials** Oxidising agent.

**Hazardous decomposition products** None known based on information supplied.

## SECTION 11: Toxicological information

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Information on likely routes of exposure**

**Product Information**

**Inhalation** Specific test data for the substance or mixture is not available.

**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available. Causes mild skin irritation.

**Ingestion** Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Prolonged contact may cause redness and irritation.

**Numerical measures of toxicity**

**Acute toxicity**

**The following values are calculated based on chapter 3.1 of the GHS document**

| | | |
|---|---|---|
| **ATEmix (oral)** | 99,999.00 | mg/kg |
| **ATEmix (dermal)** | 99,999.00 | mg/kg |
| **ATEmix (inhalation-gas)** | 99,999.00 | ppm |
| **ATEmix (inhalation-dust/mist)** | 99,999.00 | mg/l |
| **ATEmix (inhalation-vapour)** | 99,999.00 | mg/l |

**Component Information**

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Hydrochloric acid | 238 - 277 mg/kg ( Rat ) | > 5010 mg/kg ( Rabbit ) | = 1.68 mg/L ( Rat ) 1 h |
| Aluminum | | | > 0.888 mg/L ( Rat ) 4 h |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitisation** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

#### 11.2.2. Other information

**Other adverse effects** No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

### 12.2. Persistence and degradability

**Persistence and degradability** No information available.

### 12.3. Bioaccumulative potential

**Bioaccumulation** No information available.

### 12.4. Mobility in soil

**Mobility in soil** No information available.

### 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment** No information available.

| Chemical name | PBT and vPvB assessment |
|---|---|
| Hydrochloric acid | The substance is not PBT / vPvB |
| Aluminum | The substance is not PBT / vPvB |

### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

**12.7. Other adverse effects**
No information available.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

| | |
|---|---|
| **Waste from residues/unused products** | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| **Contaminated packaging** | Do not reuse empty containers. |

## SECTION 14: Transport information

**IATA**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3264 |
| **14.2 UN proper shipping name** | Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid) |
| **14.3 Transport hazard class(es)** | 8 |
| **14.4 Packing group** | III |
| **Description** | UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid), 8, III |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user** | |
| **Special Provisions** | A3, A803 |
| **ERG Code** | 8L |

**IMDG**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3264 |
| **14.2 UN proper shipping name** | Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid) |
| **14.3 Transport hazard class(es)** | 8 |
| **14.4 Packing group** | III |
| **Description** | UN3264, Corrosive liquid, acidic, inorganic, n.o.s.(Hydrochloric acid) , 8, III |
| **14.5 Marine pollutant** | NP |
| **14.6 Special precautions for user** | |
| **Special Provisions** | 223, 274 |
| **EmS-No.** | F-A, S-B No information available |
| **14.7 Maritime transport in bulk according to IMO instruments** | No information available |

**RID**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3264 |
| **14.2 UN proper shipping name** | Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid) |

| | |
|---|---|
| **14.3 Transport hazard class(es)** | 8 |
| **14.4 Packing group** | III |
| **Description** | UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid), 8, III |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user** | |
| **Special Provisions** | 274 |
| **Classification code** | C1 |

**ADR**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3264 |
| **14.2 UN proper shipping name** | Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid) |
| **14.3 Transport hazard class(es)** | 8 |
| **14.4 Packing group** | III |
| **Description** | UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid), 8, III, (E) |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user** | |
| **Special Provisions** | 274 |
| **Classification code** | C1 |
| **Tunnel restriction code** | (E) |

## SECTION 15: Regulatory information

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

**National regulations**

**France**
**Occupational Illnesses (R-463-3, France)**

| Chemical name | French RG number | Title |
|---|---|---|
| Aluminum<br>7429-90-5 | RG 32<br>RG 16,RG 16bis | - |

**Germany**

| | |
|---|---|
| **Water hazard class (WGK)** | non-hazardous to water (nwg) |

Poland

**SDS created according to the following Polish regulation: Act of February 25, 2011 on chemical substances and their mixtures (Journal of Laws of 2018, item 143, as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency (EC) as amended. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, as**

**amended. Regulation of the Minister of Health of 10 August 2012 on the criteria and method of classifying chemical substances and their mixtures (Journal of Laws of 2012, item 1018). Regulation of the Minister of Health of 20 April 2012 on labeling packaging of hazardous substances and mixtures and some mixtures (Journal of Laws of 2012, item 445). Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018 on the maximum allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286). Announcement of the Minister of Economy, Labor and Social Policy of August 28, 2003 on the publication of the unified text of the Ordinance of the Minister of Labor and Social Policy on general health and safety at work regulations (Journal of Laws of 2003, No. 169, item 1650) . Regulation of the Minister of Health of 30 December 2004 on occupational safety and health related to the presence of chemical agents in the workplace (Journal of Laws of 2005, No. 11, item 86). Act of December 14, 2012 on waste (Journal of Laws of 2013, item 21) Regulation of the Minister of Health of December 30, 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal U. of 2005, No. 11, item 86). Waste Act of December 14, 2012 (Journal of Laws of 2013, item 21). Act of 13 June 2013 on the management of packaging and packaging waste, Journal of Laws 2013, item 888). Government statement of September 24, 2002 - European Agreement on the International Carriage of Dangerous Goods by Road (ADR) (Journal of Laws No. 194, item 1629 and Journal of Laws of 2003, No. 207, item 2013 and 2014).**

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorisations and/or restrictions on use:**

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors**

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9

| Chemical name | RESTRICTED EXPLOSIVES PRECURSORS - ANNEX I | REPORTABLE EXPLOSIVES PRECURSORS - ANNEX II |
|---|---|---|
| Aluminum - 7429-90-5 | - | Present |

| Chemical name | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|---|---|---|
| Hydrochloric acid - 7647-01-0 | Use restricted. See entry 75. | |
| Aluminum - 7429-90-5 | 75. | |

**Persistent Organic Pollutants**

Not applicable

**Named dangerous substances per Seveso Directive (2012/18/EU)**

| Chemical name | Lower-tier requirements (tons) | Upper-tier requirements (tons) |
|---|---|---|
| Hydrochloric acid - 7647-01-0 | 25 | 250 |

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**
Not applicable

**Biocidal Products Regulation (EU) No 528/2012 (BPR)**

| Chemical name | Biocidal Products Regulation (EU) No 528/2012 (BPR) |
|---|---|
| Hydrochloric acid - 7647-01-0 | Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals |

**International Inventories**

| | |
|---|---|
| **TSCA** | LGC, to the best of its ability, has confirmed that the chemical substances in this product are listed as “Active” in the EPA (Environmental Protection Agency) “TSCA Inventory Notification (Active-Inactive) Requirements Rule” (“the Final Rule”) of Feb 2019, as amended Feb 2021.” |
| **DSL/NDSL** | Contact supplier for inventory compliance status |
| **EINECS/ELINCS** | Contact supplier for inventory compliance status |
| **ENCS** | Contact supplier for inventory compliance status |
| **IECSC** | Contact supplier for inventory compliance status |
| **KECI** | Contact supplier for inventory compliance status |
| **PICCS** | Contact supplier for inventory compliance status |
| **AIIC** | Contact supplier for inventory compliance status |

**Legend:**
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

**Chemical Safety Report** A Chemical Safety Assessment is not required for this substance

## SECTION 16: Other information

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Full text of H-Statements referred to under section 3**
H228 - Flammable solid
H261 - In contact with water releases flammable gases
H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H335 - May cause respiratory irritation

**Legend**
SVHC: Substances of Very High Concern for Authorisation:

**Legend Section 8: Exposure controls/personal protection**

| | | | |
|---|---|---|---|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | Sk* | Skin designation |

| Classification procedure | |
|---|---|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - Vapour | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitisation | Calculation method |
| Skin sensitisation | Calculation method |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration hazard | Calculation method |
| Ozone | Calculation method |
| Corrosive to metals | On basis of test data |

**Key literature references and sources for data used to compile the SDS**
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

**Revision date** 24-Jul-2024

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**
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**End of Safety Data Sheet**