



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 21-Aug-2024

Revision Number 1.01

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

1.1. Product identifier

| | |
|---------------------------------|--|
| Product Code(s) | VHG-TZRH-100 |
| Product Name | Zirconium Standard: Zr @ 10000 µg/mL in 5% HCl |
| Form | Not applicable |
| Unique Formula Identifier (UFI) | SFXT-P05T-200W-Y84J |
| Pure substance/mixture | Mixture |

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

| | |
|----------------------|--------------------------|
| Recommended use | Laboratory use |
| Uses advised against | No information available |

1.3. Details of the supplier of the safety data sheet

Supplier

LGC Limited
Queens Road
Teddington
Middlesex TW11 0LY
UNITED KINGDOM
:+44 (0) 20 8943 7000
Fax :+44 (0) 20 8943 2767
eMail : gb@lgcstandards.com

Web : www.lgcstandards.com

For further information, please contact

E-mail address sds-request@lgcgroup.com

1.4. Emergency telephone number

| | |
|---------------------|--|
| Emergency Telephone | For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire Exposure, or Accident Call CHEMTREC: USA & Canada 1-800-424-9300 Rest of the world +1 703-741-3877 |
|---------------------|--|



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| 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]

| | |
|-----------------------------------|---------------------|
| Skin corrosion/irritation | Category 2 - (H315) |
| Serious eye damage/eye irritation | Category 2 - (H319) |
| Corrosive to metals | Category 1 - (H290) |

2.2. Label elements





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Signal word

Warning

Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H290 - May be corrosive to metals

Precautionary Statements - EU (§28, 1272/2008)

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves and eye/face protection

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P337 + P313 - If eye irritation persists: Get medical advice/attention

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

No information available.

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 | - | - |
| Zirconium tetrachloride | - | - |

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. | Specific concentration | M-Factor | M-Factor (long-term) |
|---------------|----------|---------------------------|---------------------|---|------------------------|----------|----------------------|
|---------------|----------|---------------------------|---------------------|---|------------------------|----------|----------------------|



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| | | | | 1272/2008 [CLP] | limit (SCL) | | |
|---------------------------------------|--------|---|-----------------------------|--|---|--|--|
| 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% | | |
| Zirconium tetrachloride 10026-11-6 | 1 - <3 | - | 233-058-2 | Met. Corr. 1 (H290) Acute Tox. 4 (H302) Skin Corr. 1B (H314) | | | |

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 |
| Zirconium tetrachloride 10026-11-6 | 1688 | No data available | No data available | 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



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| | |
|---|--|
| | 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 | May cause redness and tearing of the eyes. Burning sensation. |
|-----------------|---|

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. |
|-----------------------------|--|



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| | |
|---|--|
| Other information | Refer to protective measures listed in Sections 7 and 8. |
| For emergency responders | Use personal protection recommended in Section 8. |
| <u>6.2. Environmental precautions</u> | |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. |
| <u>6.3. Methods and material for containment and cleaning up</u> | |
| 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. |
| <u>6.4. Reference to other sections</u> | |
| 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. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. |
| 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. |
|-------------------------------|--|



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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

| Chemical name | European Union | Austria | Belgium | Bulgaria | Croatia |
|---------------------------------------|--|--|--|--|---|
| Hydrochloric acid 7647-01-0 | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 5 ppm TWA: 8.0 mg/m ³ STEL: 10 ppm STEL: 15.0 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ |
| Zirconium tetrachloride 10026-11-6 | - | TWA: 5 mg/m ³ | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | - | TWA: 5 mg/m ³ STEL: 10 mg/m ³ |
| Chemical name | Cyprus | Czech Republic | Denmark | Estonia | Finland |
| Hydrochloric acid 7647-01-0 | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 8 mg/m ³ Ceiling: 15 mg/m ³ | STEL: 5 ppm STEL: 8 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | STEL: 5 ppm STEL: 7.6 mg/m ³ |
| Zirconium tetrachloride 10026-11-6 | - | - | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | - | TWA: 1 mg/m ³ |
| Chemical name | France | Germany TRGS | Germany DFG | Greece | Hungary |
| Hydrochloric acid 7647-01-0 | STEL: 5 ppm STEL: 7.6 mg/m ³ | TWA: 2 ppm TWA: 3 mg/m ³ | TWA: 2 ppm TWA: 3.0 mg/m ³ Peak: 4 ppm Peak: 6 mg/m ³ | TWA: 5 ppm TWA: 7 mg/m ³ STEL: 5 ppm STEL: 7 mg/m ³ | TWA: 8 mg/m ³ TWA: 5 ppm STEL: 165 mg/m ³ STEL: 10 ppm |
| Zirconium tetrachloride 10026-11-6 | - | - | - | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | TWA: 5 mg/m ³ STEL: 20 mg/m ³ |
| Chemical name | Ireland | Italy MDLPS | Italy AIDII | Latvia | Lithuania |
| Hydrochloric acid 7647-01-0 | TWA: 8 mg/m ³ TWA: 5 ppm STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | Ceiling: 2 ppm Ceiling: 2.9 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ |
| Zirconium tetrachloride 10026-11-6 | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | - | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | - | - |
| Chemical name | Luxembourg | Malta | Netherlands | Norway | Poland |
| Hydrochloric acid 7647-01-0 | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | Ceiling: 5 ppm Ceiling: 7 mg/m ³ | TWA: 5 mg/m ³ STEL: 10 mg/m ³ |
| Zirconium tetrachloride 10026-11-6 | - | - | - | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | TWA: 5 mg/m ³ STEL: 10 mg/m ³ |
| Chemical name | Portugal | Romania | Slovakia | Slovenia | Spain |



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| | | | | | |
|---------------------------------------|--|--|--|--|--|
| Hydrochloric acid 7647-01-0 | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ Ceiling: 2 ppm | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 5 ppm TWA: 8.0 mg/m ³ Ceiling: 15 mg/m ³ | TWA: 5 ppm TWA: 8 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ | TWA: 5 ppm TWA: 7.6 mg/m ³ STEL: 10 ppm STEL: 15 mg/m ³ |
| Zirconium tetrachloride 10026-11-6 | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | TWA: 1 mg/m ³ | TWA: 1 mg/m ³ STEL: 1 mg/m ³ | TWA: 5 mg/m ³ STEL: 10 mg/m ³ |
| Chemical name | Sweden | | Switzerland | | United Kingdom |
| Hydrochloric acid 7647-01-0 | NGV: 2 ppm NGV: 3 mg/m ³ Bindande KGV: 4 ppm Bindande KGV: 6 mg/m ³ | | TWA: 2 ppm TWA: 3 mg/m ³ STEL: 4 ppm STEL: 6 mg/m ³ | | TWA: 1 ppm TWA: 2 mg/m ³ STEL: 5 ppm STEL: 8 mg/m ³ |
| Zirconium tetrachloride 10026-11-6 | - | | TWA: 5 mg/m ³ | | TWA: 5 mg/m ³ STEL: 10 mg/m ³ |

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

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). If splashes are likely to occur, wear safety glasses with side-shields.

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. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved 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



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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 | 0 °C | None known |
| Initial boiling point and boiling range | 100 °C | 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 | No data available | None known |
| Decomposition temperature | 100 °C | 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 | 23 hPa | @ 20°C |
| Relative density | 0.99821 g/cm ³ at 20 °C | 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 100 °C 100 °C



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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. Strong acids. Strong bases.

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. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.



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Skin contact

Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Redness. May cause redness and tearing of the eyes.

Numerical measures of toxicity

Acute toxicity

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

| | |
|-------------------------------|------------------|
| ATEmix (oral) | 168,800.00 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 |
| Zirconium tetrachloride | = 1688 mg/kg (Rat) | | |

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

Skin corrosion/irritation

Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation

Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitisation

No information available.

Germ cell mutagenicity

No information available.



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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 No information available.

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



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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 |
| Zirconium tetrachloride | PBT assessment does not apply |

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 | No |
| 14.6 Special precautions for user | |
| Special Provisions | A3, A803 |
| ERG Code | 8L |

IMDG



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| | |
|--|---|
| 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 |
| Environmental hazards | No |
| 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 | No |
| 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 | No |
| 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

Germany

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



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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

Not applicable

| 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. | |



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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 algicides 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



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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

H290 - May be corrosive to metals

H302 - Harmful if swallowed

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)

Ceiling Maximum limit value

STEL

Sk*

STEL (Short Term Exposure Limit)

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



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European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AELG(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 21-Aug-2024

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

Disclaimer

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

End of Safety Data Sheet