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

1.1 Product identifier

Identification of the substance: Tin(II) chloride dihydrate

Article number: KK07

Registration number (REACH): This information is not available.

EC number: 231-868-0

CAS number: 10025-69-1

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

Identified uses: laboratory chemical

1.3 Details of the supplier of the safety data sheet

Competent person responsible for the safety data sheet: Department Health, Safety and Environment

e-mail (competent person): sicherheit@carlroth.de

1.4 Emergency telephone number

Emergency information service: Poison Centre Munich: +49/(0)89 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>Section</th>
<th>Hazard class</th>
<th>Hazard class and category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1O</td>
<td>acute toxicity (oral)</td>
<td>(Acute Tox. 4)</td>
<td>H302</td>
</tr>
<tr>
<td>3.2</td>
<td>skin corrosion/irritation</td>
<td>(Skin Corr. 1B)</td>
<td>H314</td>
</tr>
<tr>
<td>3.3</td>
<td>serious eye damage/eye irritation</td>
<td>(Eye Dam. 1)</td>
<td>H318</td>
</tr>
<tr>
<td>3.4S</td>
<td>skin sensitisation</td>
<td>(Skin Sens. 1)</td>
<td>H317</td>
</tr>
</tbody>
</table>
Tin(II) chloride dihydrate ≥98 %, p.a., max. 0,005 ppm Hg

article number: KK07

Remarks
For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word Danger

Pictograms

Hazard statements
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

Precautionary statements
Precautionary statements - prevention
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - response
P302+P352 IF ON SKIN: Wash with plenty of water.
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P363 Wash contaminated clothing before reuse.

Precautionary statements - disposal
P501 Dispose of contents/container to industrial combustion plant.

Labelling of packages where the contents do not exceed 125 ml
Signal word: Danger
Symbol(s)

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P363 Wash contaminated clothing before reuse.

2.3 Other hazards
There is no additional information.
Take off immediately all contaminated clothing. Self-protection of the first aider.

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Medical treatment necessary.

After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure. In case of skin reactions, consult a physician.

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. Protect uninjured eye.

Rinse mouth immediately and drink plenty of water. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects). Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed
Irritation, Corrosion, Allergic reactions, Cough, Dyspnoea, Vomiting, Nausea, Risk of serious damage to eyes

4.3 Indication of any immediate medical attention and special treatment needed
none

SECTION 3: Composition/information on ingredients

3.1 Substances
Name of substance: Tin(II) chloride dihydrate
EC number: 231-868-0
CAS number: 10025-69-1
Molecular formula: Cl₂Sn*2H₂O
Molar mass: 225.6 g/mol
SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Co-ordinate fire-fighting measures to the fire surroundings
water spray, foam, dry extinguishing powder, carbon dioxide (CO2)

Unsuitable extinguishing media
water jet

5.2 Special hazards arising from the substance or mixture

Non-combustible.

Hazardous combustion products
In case of fire may be liberated: hydrogen chloride (HCl), in case of fire and/or explosion do not breathe fumes

5.3 Advice for firefighters

Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Use personal protective equipment as required. Do not breathe dust. Avoid contact with skin, eyes and clothes.

6.2 Environmental precautions

Keep away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill
Covering of drains.

Advices on how to clean up a spill
Take up mechanically. Control of dust.

Other information relating to spills and releases
Place in appropriate containers for disposal.

Reference to other sections
Hazardous combustion products: see section 5. Personal protective equipment: see section 8.
Incompatible materials: see section 10. Disposal considerations: see section 13.
**SECTION 7: Handling and storage**

7.1 **Precautions for safe handling**
Avoid dust formation. Provide adequate ventilation. Handle and open container with care.
- **Measures to prevent fire as well as aerosol and dust generation**
  - Removal of dust deposits.

**Advice on general occupational hygiene**
Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and after work.

7.2 **Conditions for safe storage, including any incompatibilities**
Keep container tightly closed. Store in a dry place.
- **Incompatible substances or mixtures**
  - Observe hints for combined storage.

**Consideration of other advice**
- **Ventilation requirements**
  - Use local and general ventilation.
- **Specific designs for storage rooms or vessels**
  - Recommended storage temperature: 15 - 25 °C.

7.3 **Specific end use(s)**
No information available.

**SECTION 8: Exposure controls/personal protection**

8.1 **Control parameters**
- **National limit values**

8.2 **Exposure controls**
- **Individual protection measures (personal protective equipment)**

**Eye/face protection**
Use safety goggle with side protection. Wear face protection.

**Skin protection**
- **hand protection**
  - Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- **type of material**
  - NBR (Nitrile rubber)
Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). Type: B-P2 (combined filters for acidic gases and particles, colour code: Grey/White).

Environmental exposure controls
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**
- Physical state: solid (crystalline)
- Colour: white
- Odour: odourless
- Odour threshold: No data available

**Other physical and chemical parameters**
- pH (value): 1 - 2 (100 g/l, 20 °C)
- Melting point/freezing point: 38 °C
- Initial boiling point and boiling range: 652 °C
- Flash point: not applicable
- Evaporation rate: no data available
- Flammability (solid, gas): These information are not available

**Explosive limits**
- lower explosion limit (LEL): this information is not available
- upper explosion limit (UEL): this information is not available
- Explosion limits of dust clouds: these information are not available
- Vapour pressure: This information is not available.
- Density: 2.71 g/cm³
- Vapour density: This information is not available.
- Bulk density: ~ 1,250 kg/m³
- Relative density: Information on this property is not available.
There is no additional information.

**This material is not reactive under normal ambient conditions.**

**The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.**

Violent reaction with: Strong acid, Hydrogen peroxide, Ethylene oxide, Carbide, Danger of explosion: Hydrazine, Nitrate, Alkali metals, Strong oxidiser

There are no specific conditions known which have to be avoided.

Hazardous combustion products: see section 5.

**Solubility(ies)**

- Water solubility: \( \approx 1,200 \text{ g/l at 20 } ^\circ\text{C} \)

**Partition coefficient**

- n-octanol/water (log KOW): This information is not available.

Auto-ignition temperature: Information on this property is not available.

**Decomposition temperature**: no data available

**Viscosity**: not relevant (solid matter)

Explosive properties: none

Oxidising properties: none

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

This material is not reactive under normal ambient conditions.

**10.2 Chemical stability**

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**10.3 Possibility of hazardous reactions**

Violent reaction with: Strong acid, Hydrogen peroxide, Ethylene oxide, Carbide, Danger of explosion: Hydrazine, Nitrate, Alkali metals, Strong oxidiser

**10.4 Conditions to avoid**

There are no specific conditions known which have to be avoided.

**10.5 Incompatible materials**

There is no additional information.

**10.6 Hazardous decomposition products**

Hazardous combustion products: see section 5.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Source</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral</td>
<td>LD50</td>
<td>700 mg/kg</td>
<td>rat</td>
<td>RTECS</td>
<td>anhydr.</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation

Causes severe burns.
Causes serious eye damage.
May cause an allergic skin reaction. May cause sensitisation by skin contact.
Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.
Shall not be classified as a specific target organ toxicant (single exposure).
Shall not be classified as a specific target organ toxicant (repeated exposure).
Shall not be classified as presenting an aspiration hazard.

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects), gastrointestinal complaints

Irritation to respiratory tract, cough, Dyspnoea

causes severe burns, causes poorly healing wounds

Other adverse effects: Vomiting, Nausea, Liver and kidney damage

Other information
Other adverse effects: Vomiting, Nausea, Liver and kidney damage

SECTION 12: Ecological information

12.1 Toxicity
acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Source</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>19.5</td>
<td>daphnia magna</td>
<td>GESTIS</td>
<td>48 h</td>
</tr>
</tbody>
</table>

12.2 Process of degradability
The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential
Data are not available.
SECTION 13: Disposal considerations

13.1 Waste treatment methods
This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information
Do not empty into drains.

Waste treatment of containers/packagings
It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

13.2 Relevant provisions relating to waste
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.3 Remarks
Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number
3260

14.2 UN proper shipping name
CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

Hazardous ingredients
Tin(II) chloride dihydrate

14.3 Transport hazard class(es)
Class 8 (corrosive substances)

14.4 Packing group
II (substance presenting medium danger)

14.5 Environmental hazards
none (non-environmentally hazardous acc. to the dangerous goods regulations)

14.6 Special precautions for user
Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

• Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)
  UN number 3260
  Proper shipping name CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
  Particulars in the transport document UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S., (Tin(II)chloride dihydrate), 8, II, (E)
  Class 8
  Classification code C2
safety data sheet
according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Tin(II) chloride dihydrate ≥98 %, p.a., max. 0,005 ppm Hg

article number: KK07

Packing group: II
Danger label(s): 8

Special provisions (SP): 274
Excepted quantities (EQ): E2
Limited quantities (LQ): 1 kg
Transport category (TC): 2
Tunnel restriction code (TRC): E
Hazard identification No: 80

Emergency Action Code
2X

• International Maritime Dangerous Goods Code (IMDG)

UN number: 3260
Proper shipping name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
Particulars in the shipper's declaration: UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S., (Tin(II)chloride dihydrate), 8, II

Class: 8
Packing group: II
Danger label(s): 8

Special provisions (SP): 274
Excepted quantities (EQ): E2
Limited quantities (LQ): 1 kg
EmS: F-A, S-B
Stowage category: B
Segregation group: 1 - Acids
Tin(II) chloride dihydrate ≥98 %, p.a., max. 0,005 ppm Hg

article number: KK07

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

- Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC) Not listed.
- Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS) Not listed.
- Restrictions according to REACH, Annex XVII
  not listed
- List of substances subject to authorisation (REACH, Annex XIV)
  not listed

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II
not listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)
not listed

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)
not listed

National inventories
Substance is listed in the following national inventories:

- EINECS/ELINCS/NLP (Europe)
- REACH (Europe)

15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>CMR</td>
<td>Carcinogenic, Mutagenic or toxic for Reproduction</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>EmS</td>
<td>Emergency Schedule</td>
</tr>
</tbody>
</table>
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.

Key literature references and sources for data
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

List of relevant phrases (code and full text as stated in chapter 2 and 3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>harmful if swallowed</td>
</tr>
<tr>
<td>H314</td>
<td>causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H317</td>
<td>may cause an allergic skin reaction</td>
</tr>
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<td>H318</td>
<td>causes serious eye damage</td>
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