

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Lead(II) chloride $\geq 98\%$

article number: **5299**

Version: **4.1 en**

Replaces version of: 2024-03-01

Version: (4)

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Revision: 2024-03-04

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

### 1.1 Product identifier

|                                 |   |
|---------------------------------|---|
| Identification of the substance | <b>Lead(II) chloride <math>\geq 98\%</math></b> |
| Article number                  | 5299  |
| Index No (GB CLP)               | 082-001-00-6                                    |
| EC number                       | 231-845-5                                       |
| CAS number                      | 7758-95-4                                       |

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

|                           |  |
|---------------------------|--|
| Relevant identified uses: | Laboratory chemical<br>Laboratory and analytical use   |
| Uses advised against:     | Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feeding-stuffs. |

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

Carl Roth GmbH + Co. KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:** +49 (0) 721 - 56 06 0

**Telefax:** +49 (0) 721 - 56 06 149

**e-mail:** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

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

**e-mail (competent person):** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

### 1.4 Emergency telephone number

| Name  | Street    | Postal code/city     | Telephone    | Website |
|---|-----------|----------------------|--------------|---------|
| National Poisons Information Service<br>City Hospital | Dudley Rd | B187QH<br>Birmingham | 844 892 0111 |         |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Lead(II) chloride  $\geq 98\%$

article number: 5299

## Classification acc. to GHS

| Section | Hazard class  | Cat-egory | Hazard class and category | Hazard statement |
|---------|---|-----------|---------------------------|------------------|
| 3.10    | Acute toxicity (oral)                                 | 4         | Acute Tox. 4              | H302             |
| 3.11    | Acute toxicity (inhal.)                               | 4         | Acute Tox. 4              | H332             |
| 3.6     | Carcinogenicity                                       | 2         | Carc. 2                   | H351             |
| 3.7     | Reproductive toxicity                                 | 1A        | Repr. 1A                  | H360Df           |
| 3.9     | Specific target organ toxicity - repeated exposure    | 1         | STOT RE 1                 | H372             |
| 4.1A    | Hazardous to the aquatic environment - acute hazard   | 1         | Aquatic Acute 1           | H400             |
| 4.1C    | Hazardous to the aquatic environment - chronic hazard | 1         | Aquatic Chronic 1         | H410             |

For full text of abbreviations: see SECTION 16

## The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. Spillage and fire water can cause pollution of watercourses.

## 2.2 Label elements

### Labelling

#### Signal word

**Danger**

#### Pictograms

GHS07, GHS08,  
GHS09



#### Hazard statements

|           |  |
|-----------|--|
| H302+H332 | Harmful if swallowed or if inhaled   |
| H351      | Suspected of causing cancer  |
| H360Df    | May damage the unborn child. Suspected of damaging fertility   |
| H372      | Causes damage to organs (central nervous system, kidney, haematopoietic system) through prolonged or repeated exposure |
| H410      | Very toxic to aquatic life with long lasting effects   |

#### Precautionary statements

##### Precautionary statements - prevention

|      |   |
|------|---|
| P260 | Do not breathe dust   |
| P273 | Avoid release to the environment  |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection |

##### Precautionary statements - response

|           |   |
|-----------|---|
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell              |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing |
| P308+P313 | IF exposed or concerned: Get medical advice/attention                     |

For professional users only

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



**Lead(II) chloride  $\geq 98\%$**

article number: **5299**

## 2.3 Other hazards

### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

### Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                   |                          |
|-------------------|--------------------------|
| Name of substance | Lead(II) chloride        |
| Molecular formula | $\text{Cl}_2 \text{ Pb}$ |
| Molar mass        | 278,1 g/mol              |
| CAS No            | 7758-95-4                |
| EC No             | 231-845-5                |
| Index No (GB CLP) | 082-001-00-6             |

#### Substance, Specific Conc. Limits, M-factors, ATE

| Specific Conc. Limits  | M-Factors | ATE                       | Exposure route                    |
|--|-----------|---------------------------|-----------------------------------|
| Repr. 1A; H360D: C $\geq 0,3\%$<br>Repr. 2; H361f: C $\geq 2,5\%$<br>STOT RE 2; H373: C $\geq 0,5\%$ | -         | 500 mg/kg<br>>1,5 mg/l/4h | oral<br>inhalation: dust/<br>mist |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower.

#### Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following ingestion

Rinse mouth with water (only if the person is conscious). In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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

Vomiting, Nausea, Vomiting, Poisoning effect on central nervous system can cause convulsions, laboured breathing and loss of consciousness

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



**Lead(II) chloride  $\geq 98\%$**

article number: **5299**

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

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



#### **Suitable extinguishing media**

co-ordinate firefighting measures to the fire surroundings!  
water, foam, alcohol resistant foam, dry extinguishing powder, ABC-powder

#### **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:

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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



#### **For non-emergency personnel**

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe dust.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

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

#### **Advice on how to contain a spill**

Covering of drains. Take up mechanically.

#### **Advice 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.

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Lead(II) chloride  $\geq 98\%$

article number: 5299

## 6.4 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 exposure. Avoid dust formation.

#### Measures to prevent fire as well as aerosol and dust generation

Removal of dust deposits.

#### Measures to protect the environment

Avoid release to the environment.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Store in a dry place. Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

#### Ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted. 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

#### Occupational exposure limit values (Workplace Exposure Limits)

| Country | Name of agent  | CAS No | Identifier | TWA [mg/m <sup>3</sup> ] | STEL [mg/m <sup>3</sup> ] | Ceiling-C [mg/m <sup>3</sup> ] | Notation | Source      |
|---------|----------------|--------|------------|--------------------------|---------------------------|--------------------------------|----------|-------------|
| EU      | lead compounds |        | IOELV      | 0,15                     |                           |                                |          | 2022/431/EU |
| GB      | lead compounds |        | OEL-NIR    | 0,15                     |                           |                                | Pb       | CLWR-NIR    |
| GB      | lead compounds |        | OEL        | 0,15                     |                           |                                | Pb       | CLWR        |
| GB      | dust           |        | WEL        | 10                       |                           |                                | i        | EH40/2005   |
| GB      | dust           |        | WEL        | 4                        |                           |                                | r        | EH40/2005   |

#### Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur  
i Inhalable fraction  
Pb Calculated as Pb (lead)

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Lead(II) chloride $\geq 98\%$

article number: 5299

### Notation

|      |  |
|------|--|
| r    | Respirable fraction  |
| STEL | Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)                   |
| TWA  | Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified) |

### Biological limit values

| Country | Name of agent  | CAS No | Parameter | Notation                           | Identifier | Value    | Material    | Source   |
|---------|----------------|--------|-----------|------------------------------------|------------|----------|-------------|----------|
| GB      | lead compounds |        | lead      | Pb-bio-2, Pb-med-2, wmn < 45y      | AL_NIR     | 250 µg/l | whole blood | CLWR-NIR |
| GB      | lead compounds |        | lead      | Pb-bio-2, Pb-med-2, wmn < 45y      | AL         | 250 µg/l | whole blood | CLWR     |
| GB      | lead compounds |        | lead      | Pb-bio-2, Pb-med-3, wmn > 45y, men | AL_NIR     | 400 µg/l | whole blood | CLWR-NIR |
| GB      | lead compounds |        | lead      | Pb-bio-2, Pb-med-3, wmn > 45y, men | AL         | 400 µg/l | whole blood | CLWR     |
| GB      | lead compounds |        | lead      | Pb-bio-2, Pb-med-4, young          | AL_NIR     | 500 µg/l | whole blood | CLWR-NIR |
| GB      | lead compounds |        | lead      | Pb-bio-2, Pb-med-4, young          | AL         | 500 µg/l | whole blood | CLWR     |

### Notation

|          |   |
|----------|---|
| Pb-bio-2 | Biological monitoring: (a) in respect of an employee other than a young person or a woman of reproductive capacity, at least every 6 months, but where the results of the measurements for individuals or for groups of workers have shown on the previous two consecutive occasions on which monitoring was carried out a lead in air exposure greater than 0.075 mg/m <sup>3</sup> but less than 0.100 mg/m <sup>3</sup> and where the blood-lead concentration of any individual employee is less than 30 µg/dl, the frequency of monitoring may be reduced to once a year; or (b) in respect of any young person or a woman of reproductive capacity, at such intervals as the relevant doctor shall specify, being not greater than 3 months |
| Pb-med-2 | Medical surveillance: in respect of a woman of reproductive capacity, 20 g/dl (blood-lead concentration) or 20 g Pb/g creatinine (urinary lead concentration)   |
| Pb-med-3 | Medical surveillance: in respect of any other employee, 35 µg/dl (blood-lead concentration) or 40 µg Pb/g creatinine (urinary lead concentration)<br>suspension level: in respect of a woman of reproductive capacity, 60 µg/dl (blood-lead concentration) or 110 µg Pb/g creatinine (urinary lead concentration)   |

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Lead(II) chloride $\geq 98\%$

article number: 5299

### Notation

|                 |   |
|-----------------|---|
| Pb-med-4        | Medical surveillance: in respect of any other employee, 35 µg/dl (blood-lead concentration) or 40 µg Pb/g creatinine (urinary lead concentration)<br>suspension level: in respect of a young person, 50 µg/dl (blood-lead concentration) or 110 µg Pb/g creatinine (urinary lead concentration) |
| wmn<45y         | Women of reproductive capacity (women < 45 years)   |
| wmn>45y,<br>men | Women of non-reproductive capacity, men (women > 45 years)  |
| young           | Adolescents (young person < 18 years)   |

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggles with side protection.

#### Skin protection



#### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### • type of material

NBR (Nitrile rubber)

#### • material thickness

>0,11 mm

#### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

#### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

#### Respiratory protection



Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P3 (filters at least 99,95 % of airborne particles, colour code: White).

#### Environmental exposure controls

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



**Lead(II) chloride  $\geq 98\%$**

article number: **5299**

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|  |  |
|--|--|
| Physical state   | solid  |
| Form   | powder   |
| Colour   | white  |
| Odour  | odourless                                      |
| Melting point/freezing point                             | 501 °C (ECHA)                                  |
| Boiling point or initial boiling point and boiling range | 950 °C at 1.013 hPa (ECHA)                     |
| Flammability   | non-combustible                                |
| Lower and upper explosion limit                          | not determined                                 |
| Flash point  | not applicable                                 |
| Auto-ignition temperature                                | not determined                                 |
| Decomposition temperature                                | not relevant                                   |
| pH (value)   | not applicable                                 |
| Kinematic viscosity                                      | not relevant                                   |
| <u>Solubility(ies)</u>                                   |  |
| Water solubility   | 10 g/l at 19,9 °C (ECHA)                       |
| <u>Partition coefficient</u>                             |  |
| Partition coefficient n-octanol/water (log value):       | not relevant (inorganic)                       |
| Vapour pressure  | 1 hPa at 547 °C                                |
| <u>Density and/or relative density</u>                   |  |
| Density  | 5,98 g/cm <sup>3</sup> at 20 °C (ECHA)         |
| Relative vapour density                                  | Information on this property is not available. |
| Particle characteristics                                 | No data available.                             |
| <u>Other safety parameters</u>                           |  |
| Oxidising properties                                     | none   |

### 9.2 Other information

|   |   |
|---|---|
| Information with regard to physical hazard classes: | hazard classes acc. to GHS (physical hazards): not relevant |
| Other safety characteristics:                       | There is no additional information.                         |



# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Lead(II) chloride  $\geq 98\%$

article number: 5299

## 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 oxidiser, Alkali metals, Alkaline earth metal, Strong acid

### 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

**Classification acc. to GHS**

#### Acute toxicity

Harmful if swallowed. Harmful if inhaled.

GHS of the United Nations, annex 4. May be harmful in contact with skin.

| Acute toxicity |          |                        |         |        |        |
|----------------|----------|------------------------|---------|--------|--------|
| Exposure route | Endpoint | Value                  | Species | Method | Source |
| oral           | LD50     | $>2.000 \text{ mg/kg}$ | rat     |        | ECHA   |
| dermal         | LD50     | $>2.000 \text{ mg/kg}$ | rat     |        | ECHA   |

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

#### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Suspected of causing cancer.

#### Reproductive toxicity

May damage the unborn child. Suspected of damaging fertility.

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



**Lead(II) chloride  $\geq 98\%$**

article number: **5299**

## Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

## Specific target organ toxicity - repeated exposure

Causes damage to organs (central nervous system, kidney, haematopoietic system) through prolonged or repeated exposure.

| Hazard category | Target organ           | Exposure route |
|-----------------|------------------------|----------------|
| 1               | central nervous system | if swallowed   |
| 1               | kidney                 | if swallowed   |
| 1               | haematopoietic system  | if swallowed   |
| 1               | central nervous system | if inhaled     |
| 1               | kidney                 | if inhaled     |
| 1               | haematopoietic system  | if inhaled     |

## Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

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

### • If swallowed

diarrhoea, vomiting, abdominal pain, nausea

### • If in eyes

Data are not available.

### • If inhaled

varying degrees of pulmonary injury

### • If on skin

risk of absorption via the skin

### • Other information

Irreversible damage to internal organs, Poisoning effect on central nervous system can cause convulsions, laboured breathing and loss of consciousness

## 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

## 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



**Lead(II) chloride  $\geq 98\%$**

article number: **5299**

| Aquatic toxicity (acute) |            |               |        |               |
|--------------------------|------------|---------------|--------|---------------|
| Endpoint                 | Value      | Species       | Source | Exposure time |
| EC50                     | 0,45 mg/l  | daphnia magna | GESTIS | 48 h          |
| LC50                     | 1.170 µg/l | fish          | ECHA   | 96 h          |
| ErC50                    | 123 µg/l   | algae         | ECHA   | 72 h          |

## 12.2 Persistence and degradability

Data are not available.

## 12.3 Bioaccumulative potential

Data are not available.

## 12.4 Mobility in soil

Data are not available.

## 12.5 Results of PBT and vPvB assessment

Data are not available.

## 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

## 12.7 Other adverse effects

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. Avoid release to the environment. Refer to special instructions/safety data sheets.

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

### 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.

#### Properties of waste which render it hazardous

- HP 5** specific target organ toxicity (STOT)/aspiration toxicity
- HP 6** acute toxicity
- HP 7** carcinogenic
- HP 10** toxic for reproduction
- HP 14** ecotoxic

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



**Lead(II) chloride ≥98 %**

article number: **5299**

## 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. Non-contaminated packages may be recycled.

## SECTION 14: Transport information

### 14.1 UN number or ID number

|           |         |
|-----------|---------|
| ADRRID    | UN 2291 |
| IMDG-Code | UN 2291 |
| ICAO-TI   | UN 2291 |

### 14.2 UN proper shipping name

|                |                                |
|----------------|--------------------------------|
| ADRRID         | LEAD COMPOUND, SOLUBLE, N.O.S. |
| IMDG-Code      | LEAD COMPOUND, SOLUBLE, N.O.S. |
| ICAO-TI        | Lead compound, soluble, n.o.s. |
| Technical name | Lead(II) chloride              |

### 14.3 Transport hazard class(es)

|           |     |
|-----------|-----|
| ADRRID    | 6.1 |
| IMDG-Code | 6.1 |
| ICAO-TI   | 6.1 |

### 14.4 Packing group

|           |     |
|-----------|-----|
| ADRRID    | III |
| IMDG-Code | III |
| ICAO-TI   | III |

### 14.5 Environmental hazards

hazardous to the aquatic environment

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

#### Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) Additional information

|                                       |   |
|---------------------------------------|---|
| Proper shipping name                  | LEAD COMPOUND, SOLUBLE, N.O.S.  |
| Particulars in the transport document | UN2291, LEAD COMPOUND, SOLUBLE, N.O.S., (Lead(II) chloride), 6.1, III, (E), environmentally hazardous |
| Classification code                   | T5  |
| Danger label(s)                       | 6.1, "Fish and tree"  |



# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Lead(II) chloride $\geq 98\%$

article number: **5299**

|                               |  |
|-------------------------------|--|
| Environmental hazards         | yes (hazardous to the aquatic environment) |
| Special provisions (SP)       | 199, 274, 535, 802(ADN)                    |
| Excepted quantities (EQ)      | E1   |
| Limited quantities (LQ)       | 5 kg                                       |
| Transport category (TC)       | 2  |
| Tunnel restriction code (TRC) | E  |
| Hazard identification No      | 60   |
| <b>Emergency Action Code</b>  | <b>2Z</b>                                  |

### Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)Additional information

|                            |                      |
|----------------------------|----------------------|
| <b>Classification code</b> | T5                   |
| <b>Danger label(s)</b>     | 6.1, "Fish and tree" |



|                              |                           |
|------------------------------|---------------------------|
| <b>Environmental hazards</b> | Yes<br>Hazardous to water |
|------------------------------|---------------------------|

|                                 |                         |
|---------------------------------|-------------------------|
| <b>Special provisions (SP)</b>  | 199, 274, 535, 802(ADN) |
| <b>Excepted quantities (EQ)</b> | E1                      |
| <b>Limited quantities (LQ)</b>  | 5 kg                    |
| <b>Transport category (TC)</b>  | 2                       |
| <b>Hazard identification No</b> | 60                      |

### International Maritime Dangerous Goods Code (IMDG) - Additional information

|  |   |
|--|---|
| Proper shipping name                     | LEAD COMPOUND, SOLUBLE, N.O.S.  |
| Particulars in the shipper's declaration | UN2291, LEAD COMPOUND, SOLUBLE, N.O.S., (Lead(II) chloride), 6.1, III, MARINE POLLUTANT |
| Marine pollutant                         | yes (P) (hazardous to the aquatic environment)  |
| <b>Danger label(s)</b>                   | 6.1, "Fish and tree"  |



|                          |  |
|--------------------------|--|
| Special provisions (SP)  | 199, 274   |
| Excepted quantities (EQ) | E1   |
| Limited quantities (LQ)  | 5 kg   |
| EmS                      | F-A, S-A   |
| Stowage category         | A  |
| Segregation group        | 7 - Heavy metals and their salts<br>9 - Lead and its compounds |

# Safety data sheet Safety data sheet


acc. to Regulation (EC) No. 1907/2006 (REACH)



**Lead(II) chloride  $\geq 98\%$**

article number: **5299**

## International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

|   |   |
|---|---|
| Proper shipping name  | Lead compound, soluble, n.o.s.  |
| Particulars in the shipper's declaration  | UN2291, Lead compound, soluble, n.o.s., (Lead(II) chloride), 6.1, III |
| Environmental hazards   | yes (hazardous to the aquatic environment)                            |
| Danger label(s)   | 6.1   |
|  |   |
| Special provisions (SP)   | A92   |
| Excepted quantities (EQ)  | E1  |
| Limited quantities (LQ)   | 10 kg   |

## 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)

##### Seveso Directive

| 2012/18/EU (Seveso III) |  |   |       |
|-------------------------|--|---|-------|
| No                      | Dangerous substance/hazard categories                                | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
| E1                      | environmental hazards (hazardous to the aquatic environment, cat. 1) | 100                      200  | 56)   |

##### Notation

56) Hazardous to the Aquatic Environment in category Acute 1 or Chronic 1

##### Deco-Paint Directive

|             |       |
|-------------|-------|
| VOC content | 0 %   |
| VOC content | 0 g/l |

##### Industrial Emissions Directive (IED)

|             |       |
|-------------|-------|
| VOC content | 0 %   |
| VOC content | 0 g/l |

##### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

##### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



**Lead(II) chloride ≥98 %**

article number: **5299**

## Water Framework Directive (WFD)

### List of pollutants (WFD)

| Name of substance | Name acc. to inventory  | CAS No    | Listed in | Remarks |
|-------------------|---|-----------|-----------|---------|
| Lead(II) chloride | lead compounds  |           | b)        |         |
| Lead(II) chloride | lead compounds  | 7439-92-1 | c)        |         |
| Lead(II) chloride | Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment |           | a)        |         |
| Lead(II) chloride | Metals and their compounds  |           | a)        |         |

#### Legend

- a) Indicative list of the main pollutants  
b) List of priority substances in the field of water policy  
c) Environmental Quality Standards for Priority Substances and certain other pollutants

## Regulation on the marketing and use of explosives precursors

not listed

## Regulation on drug precursors

not listed

## Regulation on substances that deplete the ozone layer (ODS)

not listed

## Regulation concerning the export and import of hazardous chemicals (PIC)

chemicals subject to the international prior informed consent (PIC) procedure (the 'PIC procedure').

| Name of substance | Name acc. to inventory | CAS No | Wt% | Category / subcategory | Use limitation |
|-------------------|------------------------|--------|-----|------------------------|----------------|
| Lead(II) chloride | lead compounds         |        | 100 | i(2)                   | sr             |

#### Legend

- i(2) Sub-category: i(2) - industrial chemical for public use  
sr Use limitation: severe restriction (for the sub-category or sub-categories concerned) according to Union legislation

## Regulation on persistent organic pollutants (POP)

not listed

## National regulations(GB)

## List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

not listed

## Restrictions according to GB REACH, Annex 17

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Lead(II) chloride $\geq 98\%$

article number: 5299

### Dangerous substances with restrictions (GB REACH, Annex 17)

| Name of substance | Name acc. to inventory | CAS No | No |
|-------------------|------------------------|--------|----|
| Lead(II) chloride | toxic for reproduction |        | 30 |
| Lead(II) chloride | Lead compounds         |        | 63 |
| Lead(II) chloride | Lead compounds         |        | 72 |

### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

### National inventories

| Country | Inventory  | Status                       |
|---------|------------|------------------------------|
| AU      | AIIC       | substance is listed          |
| CA      | DSL        | substance is listed          |
| CN      | IECSC      | substance is listed          |
| EU      | ECSI       | substance is listed          |
| EU      | REACH Reg. | substance is listed          |
| JP      | CSCL-ENCS  | substance is listed          |
| KR      | KECI       | substance is listed          |
| MX      | INSQ       | substance is listed          |
| NZ      | NZIoC      | substance is listed          |
| PH      | PICCS      | substance is listed          |
| TW      | TCSI       | substance is listed          |
| US      | TSCA       | substance is listed (ACTIVE) |
| VN      | NCI        | substance is listed          |

#### Legend

|            |   |
|------------|---|
| AIIC       | Australian Inventory of Industrial Chemicals                            |
| CSCL-ENCS  | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL        | Domestic Substances List (DSL)  |
| ECSI       | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC      | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ       | National Inventory of Chemical Substances                               |
| KECI       | Korea Existing Chemicals Inventory                                      |
| NCI        | National Chemical Inventory   |
| NZIoC      | New Zealand Inventory of Chemicals                                      |
| PICCS      | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |
| REACH Reg. | REACH registered substances   |
| TCSI       | Taiwan Chemical Substance Inventory                                     |
| TSCA       | Toxic Substance Control Act   |

## 15.2 Chemical safety assessment

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



# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Lead(II) chloride  $\geq 98\%$

article number: 5299

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)   | Actual entry (text/value)  | Safety-relevant |
|---------|---|--|-----------------|
| 2.2     |   | Hazard statements:<br>change in the listing (table)  | yes             |
| 2.3     | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (EDC)<br>in a concentration of $\geq 0,1\%$ . | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (ED) at<br>a concentration of $\geq 0,1\%$ . | yes             |

### Abbreviations and acronyms

| Abbr.       | Descriptions of used abbreviations   |
|-------------|--|
| 2022/431/EU | Directive (EU) 2022/431 of the European Parliament and of the Council of 9 March 2022 amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work |
| ADR         | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)  |
| ATE         | Acute Toxicity Estimate  |
| CAS         | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)   |
| Ceiling-C   | Ceiling value  |
| CLWR        | Control of Lead at Work Regulations  |
| CLWR-NIR    | Control of Lead at Work Regulations (Northern Ireland)   |
| DGR         | Dangerous Goods Regulations (see IATA/DGR)   |
| EC50        | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval                                       |
| EC No       | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                      |
| ED          | Endocrine disruptor  |
| EH40/2005   | EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )                                  |
| EINECS      | European Inventory of Existing Commercial Chemical Substances  |
| ELINCS      | European List of Notified Chemical Substances  |
| EmS         | Emergency Schedule   |
| ErC50       | $\equiv$ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control  |
| GB CLP      | The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)   |
| GB REACH    | The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)   |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations  |
| IATA        | International Air Transport Association  |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)   |
| ICAO        | International Civil Aviation Organization  |

# Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Lead(II) chloride $\geq 98\%$

article number: **5299**

| Abbr.     | Descriptions of used abbreviations  |
|-----------|---|
| ICAO-TI   | Technical instructions for the safe transport of dangerous goods by air   |
| IMDG      | International Maritime Dangerous Goods Code   |
| IMDG-Code | International Maritime Dangerous Goods Code   |
| index No  | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV     | Indicative occupational exposure limit value  |
| LC50      | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval                       |
| LD50      | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval  |
| NLP       | No-Longer Polymer   |
| OEL       | Workplace exposure limit  |
| PBT       | Persistent, Bioaccumulative and Toxic   |
| REACH     | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID       | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| STEL      | Short-term exposure limit   |
| TWA       | Time-weighted average   |
| VOC       | Volatile Organic Compounds  |
| vPvB      | Very Persistent and very Bioaccumulative  |
| WEL       | Workplace exposure limit  |

### Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

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

| Code   | Text  |
|--------|---|
| H302   | Harmful if swallowed.   |
| H332   | Harmful if inhaled.   |
| H351   | Suspected of causing cancer.  |
| H360Df | May damage the unborn child. Suspected of damaging fertility.   |
| H372   | Causes damage to organs (central nervous system, kidney, haematopoietic system) through prolonged or repeated exposure. |
| H400   | Very toxic to aquatic life.   |
| H410   | Very toxic to aquatic life with long lasting effects.   |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.