

# Material Safety Data Sheet

## Zinc chloride

ACC# 25350

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Zinc chloride

**Catalog Numbers:** AC196840000, AC196840010, AC196840050, AC198940000, AC198945000, AC318170000, AC318170100, AC380130000, AC380130050, AC380130250, AC424590000, AC424592500, AC424595000, NC9598753, S802471, Z31-3, Z32-12, Z32-212, Z32-50, Z32-500, Z33-100, Z33-3, Z33-500, Z34-12, Z34-212

**Synonyms:** Zinc butter; Zinc dichloride.**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7646-85-7	Zinc chloride	>97	231-592-0

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: white to off-white crystalline powder.

**Danger!** Causes burns by all exposure routes. Harmful if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Hygroscopic (absorbs moisture from the air). Corrosive to metal.

**Target Organs:** Respiratory system, gastrointestinal system, eyes, skin, mucous membranes.**Potential Health Effects****Eye:** Causes eye burns.**Skin:** Causes skin burns.**Ingestion:** Harmful if swallowed. Causes gastrointestinal tract burns.**Inhalation:** Causes chemical burns to the respiratory tract.**Chronic:** No information found.

## Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

**Ingestion:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:** Use foam, dry chemical, or carbon dioxide.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 1

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

## Section 7 - Handling and Storage

**Handling:** Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood.

**Storage:** Store in a cool, dry place. Store in a tightly closed container. Corrosives area. Do not store in metal containers. Store protected from moisture.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

**Exposure Limits**

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Zinc chloride	1 mg/m <sup>3</sup> TWA (fume); 2 mg/m <sup>3</sup> STEL (fume)	1 mg/m <sup>3</sup> TWA (fume) 50 mg/m <sup>3</sup> IDLH (fume)	1 mg/m <sup>3</sup> TWA (fume)

**OSHA Vacated PELs:** Zinc chloride: 1 mg/m<sup>3</sup> TWA

#### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Crystalline powder

**Appearance:** white to off-white

**Odor:** odorless

**pH:** 5 (100 g/L aq.sol.)

**Vapor Pressure:** 1.3 mbar @ 428 deg C

**Vapor Density:** Not available.

**Evaporation Rate:** Not applicable.

**Viscosity:** Not applicable.

**Boiling Point:** 732 deg C

**Freezing/Melting Point:** 293 deg C

**Decomposition Temperature:** Not available.

**Solubility:** 432 g/100ml (25°C)

**Specific Gravity/Density:** 2.91

**Molecular Formula:** ZnCl<sub>2</sub>

**Molecular Weight:** 136.29

## Section 10 - Stability and Reactivity

**Chemical Stability:** Hygroscopic: absorbs moisture or water from the air.

**Conditions to Avoid:** Incompatible materials, dust generation, exposure to moist air or water.

**Incompatibilities with Other Materials:** Metals, strong oxidizing agents.

**Hazardous Decomposition Products:** Hydrogen chloride, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 7646-85-7: ZH1400000

**LD50/LC50:**

CAS# 7646-85-7:

Oral, mouse: LD50 = 329 mg/kg;

Oral, rat: LD50 = 350 mg/kg;

**Carcinogenicity:**

CAS# 7646-85-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** Tumorigenic effects have been reported in experimental animals.

**Teratogenicity:** Teratogenic effects have occurred in experimental animals.

**Reproductive Effects:** Adverse reproductive effects have occurred in experimental animals.

**Mutagenicity:** Mutagenic effects have occurred in experimental animals. Mutagenic effects have occurred in humans. Mutation in microorganisms:

**Neurotoxicity:** Neurotoxic effects have occurred in experimental animals.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No information available.

**Physical:** No information available.

**Other:** Do not empty into drains.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	ZINC CHLORIDE, ANHYDROUS	ZINC CHLORIDE, ANHYDROUS
<b>Hazard Class:</b>	8	8
<b>UN Number:</b>	UN2331	UN2331
<b>Packing Group:</b>	III	III

## Section 15 - Regulatory Information

**US FEDERAL**

**TSCA**

CAS# 7646-85-7 is listed on the TSCA inventory.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**

CAS# 7646-85-7: 1000 lb final RQ; 454 kg final RQ

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**SARA Codes**

CAS # 7646-85-7: immediate.

**Section 313**

This material contains Zinc chloride (listed as Zinc compounds), >97%, (CAS# 7646-85-7) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**

CAS# 7646-85-7 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA. CAS# 7646-85-7 is listed as a Toxic Pollutant under the Clean Water Act.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 7646-85-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations****European Labeling in Accordance with EC Directives****Hazard Symbols:**

C N

**Risk Phrases:**

R 22 Harmful if swallowed.

R 34 Causes burns.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice

immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

### **WGK (Water Danger/Protection)**

CAS# 7646-85-7: 1

### **Canada - DSL/NDSL**

CAS# 7646-85-7 is listed on Canada's DSL List.

### **Canada - WHMIS**

This product has a WHMIS classification of E, D1B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

### **Canadian Ingredient Disclosure List**

CAS# 7646-85-7 is listed on the Canadian Ingredient Disclosure List.

## Section 16 - Additional Information

**MSDS Creation Date:** 2/19/1998

**Revision #10 Date:** 2/13/2008

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*