

**Fisher Scientific**

Part of Thermo Fisher Scientific

Material Safety Data Sheet

Creation Date 27-Sep-2010

Revision Date 27-Sep-2010

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION**Product Name****Zinc chloride****Cat No.****Z31-3; Z32-12; Z32-50; Z32-212; Z32-500; Z33-3; Z33-100; Z33-500; Z34-12; Z34-212****Synonyms**

Zinc butter, Zinc dichloride (Powder/Granular/Crystalline/Technical/USP/EP/BP/JP/Certified ACS)

Recommended Use

Laboratory chemicals

CompanyFisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100**Emergency Telephone Number**CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887**2. HAZARDS IDENTIFICATION****DANGER!****Emergency Overview**

Causes burns by all exposure routes. Harmful if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Hygroscopic.

Appearance White**Physical State** Solid**odor** odorless**Target Organs**

Skin, Respiratory system, Eyes, Gastrointestinal tract (GI)

Potential Health Effects**Acute Effects****Principle Routes of Exposure****Eyes**

Causes burns.

Skin

Causes burns. May be harmful in contact with skin.

Inhalation

Causes burns. May be harmful if inhaled.

Ingestion

Causes burns. Harmful if swallowed.

Chronic Effects

None known.

See Section 11 for additional Toxicological information.

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Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Zinc chloride	7646-85-7	>95

4. FIRST AID MEASURES**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Ingestion

Do not induce vomiting. Call a physician or Poison Control Center immediately.

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point
Method

No information available.
No information available.

Autoignition Temperature
Explosion Limits
Upper
Lower

No information available.
No data available
No data available

Suitable Extinguishing Media

CO₂, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media

No information available.

Hazardous Combustion Products

No information available.

Sensitivity to mechanical impact
Sensitivity to static discharge

No information available.
No information available.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health 3

Flammability 1

Instability 1

Physical hazards N/A

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid dust formation.
Environmental Precautions	Should not be released into the environment.
Methods for Containment and Clean Up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. HANDLING AND STORAGE

Handling	Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Do not breathe vapors/dust. Do not ingest.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures	Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.
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Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Zinc chloride	TWA: 1 mg/m ³ STEL: 2 mg/m ³	(Vacated) TWA: 1 mg/m ³ (Vacated) STEL: 2 mg/m ³ TWA: 1 mg/m ³	IDLH: 50 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWA/EV
Zinc chloride	TWA: 1 mg/m ³	TWA: 1 mg/m ³ STEL: 2 mg/m ³	TWA: 1 mg/m ³ STEL: 2 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health**Personal Protective Equipment****Eye/face Protection**

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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State
Appearance
odor
Odor Threshold
pH
Vapor Pressure
Vapor Density
Viscosity

Solid
White
odorless
No information available.
5 100 g/L aq.sol.
1.3 mbar @ 428 °C
No information available.
No information available.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point/Range	732°C / 1349.6°F
Melting Point/Range	293°C / 559.4°F
Decomposition temperature	No information available.
Flash Point	No information available.
Evaporation Rate	No information available.
Specific Gravity	No information available.
Solubility	No information available.
log Pow	No data available
Molecular Weight	136.29
Molecular Formula	Cl ₂ Zn

10. STABILITY AND REACTIVITY

Stability	Hygroscopic.
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation. Exposure to moist air or water.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Hydrogen chloride gas
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing..

11. TOXICOLOGICAL INFORMATIONAcute ToxicityComponent Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Zinc chloride	350 mg/kg (Rat)	Not listed	Not listed

Irritation Causes burns by all exposure routes

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization No information available.

Mutagenic Effects No information available.

Reproductive Effects No information available.

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Developmental Effects No information available.

Teratogenicity No information available.

Other Adverse Effects See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION**Ecotoxicity**

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

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Zinc chloride	Not listed	LC50: 0.4-2.2 mg/L/96h (Cyprinus carpio)	Not listed	EC50: 0.2 mg/L/48h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility No information available

13. DISPOSAL CONSIDERATIONS**Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION**DOT**

UN-No UN2331
Proper Shipping Name ZINC CHLORIDE, ANHYDROUS
Hazard Class 8
Packing Group III

TDG

UN-No UN2331
Proper Shipping Name ZINC CHLORIDE, ANHYDROUS
Hazard Class 8
Packing Group III

IATA

UN-No UN2331
Proper Shipping Name ZINC CHLORIDE, ANHYDROUS

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14. TRANSPORT INFORMATION

Hazard Class 8
Packing Group III

IMDG/IMO

UN-No UN2331
Proper Shipping Name ZINC CHLORIDE, ANHYDROUS
Hazard Class 8
Packing Group III

15. REGULATORY INFORMATION**International Inventories**

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Zinc chloride	X	X	-	231-592-0	-		X	X	X	X	KE-35535 X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

Y - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
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Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Zinc chloride	X	1000 lb	-	-

Clean Air Act

Not applicable

OSHA

Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Zinc chloride	1000 lb	-

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Zinc chloride	X	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations**Mexico - Grade**

No information available

Canada

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

WHMIS Hazard Class

E Corrosive material



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16. OTHER INFORMATION**Prepared By**

Regulatory Affairs
Thermo Fisher Scientific
Tel: (412) 490-8929

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Revision Summary

****, and red text indicates revision

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS