Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 1: Identification

Product Name Zinc Chloride USP
Commercial Name N/A
Product Use FOOD AND PHARMACEUTICAL INDUSTRY
Restrictions On Use N/A

Product Code 50-5244

Company
PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

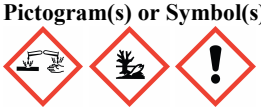
Section 2: Hazard(s) Identification

OSHA Haz Com: CFR 1910.1200 Acute Toxicity, Oral (Category4) H302 Skin Corrosion (Category 1B), H314 Serious Eye Damage (Category 1), H318 Specific target organ toxicity-single exposure (Category 3), Respiratory system, H335 Short Term (acute) aquatic hazard (Category 1), H400 Long term (chronic) aquatic hazard (Category 1), H410

Signal Word DANGER

Hazard Statement(s) H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage. H335: May cause respiratory irritation. H410:Very toxic to aquatic life with long lasting effects.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention P260: Do not breathe dust P264: Wash skin throughly after handling P270: Do not eat, drink or smoke when using this product P271: Use only outdoors or in a well ventilated area P273:Avoid release to the environment P280: Wear protective gloves/ protective clothing/eye protection/ face protection

Response P301+P312+P330: If Swallowed: Call a poison center/doctor if you geel uwell. Rinse mouth. P303+P361+P353: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower P304+P340+P10: If Inhaled: Romeve person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. P305+P351+P338+P310: If in eyes: Rinse cautiously with water for several minutes. Removed contact lenses, if present and easy to do. Contine rinsing. Immediately call a poison center/docor P363: Wash contaminated clothing before reuse P391:Collect spillage

Storage P403+P233L Store in a well ventilated place. Keep container tightly closed. P405: Store locked up

Disposal P501: Dispose of contents/ container to an approved waste disposal plant

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Zinc Chloride
% By Weight <=100%
CAS# 7646-85-7
Molecular Weight 136.30 g/mol
Chemical Formula ZnCl2
Synonym(s) N/A

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Zinc Chloride	7646-85-7	<=100%	N/A	N/A

Section 4: First-Aid Measures

Inhalation	After Inhalation:Fresh air. Call in physician
Skin Contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately
Eye Contact	Rinse out with plenty of water. Immediately call in ophthalmologist
Ingestion	Make victim drink water (two glasses at most), avoid vomiting (risk or perforation) Call a physican immediately. Do not attempt to netralize
Symptoms/Effects	
Acute	The most important known symptoms and effects are described in labelling (see section 2 and/or section 11)
Delayed	The most important known symptoms and effects are described in labelling (see section 2 and/or section 11)

Immediate Medical Attention
No data available

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to locate cicumstances and the surrounding environment

Unsuitable Extinguishing Media
For this substance/mixture no limitations of extinguishing agents are given

Products of Combustion
Hydrogen chloride gas. zinc/zinc oxides, Fie may cause evolution of: Hydrogen chloride gas, ambient fire may liberate hazardous vapors

Firefighters Special Equipment and Precautions
Stay in danger area only with self contained breathing apparatus. Prevent skin contact by keping a safe distance or by wearing suitable protective clothing. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system

Section 6: Accidental Release Measures

Personal Precautions, protective equipment and emerfency procedures: Advice for non-emergency personal: Avoid inhalation of dusts. Avoid susbstance contact. Ensure adequate ventilation. Evacuate the danger area, observer emergency procedures, consult an expert. For personal protection see section 8 Environmental precautions: Do not let product enter drains Methods and materials for containment and cleaning up: Cover drains. collect, bind and pump spills. Observe possible material restrictions. See section 7 and 10. take up dry. Dry of properly. Clean up affected area. Avoid generation of dusts

Section 7: Handling and Storage

Precautions for safe handling: For precautions see section 2 Storage conditions: Tight closed. Dry. Recommeded storage temperature see product label Storage class: (TRGS 510): 8B: Non combustible, corrosive hazardous materials Specific end use(s): Apart from the uses mentioned in section 1 no other specific uses are stipulated

Section 8: Exposure Controls/Personal Protection

Exposure Limits	Zinc Chloride; CAS:7646-85-7 TWA: 1mg/m3, USA, ACGIH Threshold limit Values (TLV) STEL: 2mg/m3 ACGIH Threshold limit Values (TLV) TWA: 1mg/m3, USA, NIOSH Recommended Exposure limits ST: 2mg/m3, USA, NIOSH Recommended Exposure limits TWA: 1mg/m3: USA. Occupational exposure limits (OSHA)-Table Z-1 Limits for air contaminants PEL: 1mg/mg; California permissible exposure limits for chemical contaminants (title 8, Article 107) STEL: 2mg/m3, California permissible exposure limits for chemical contaminants (title 8, Article 107)
Engineering Controls	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal Protection

Eye/Face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU). tightly fitting safety goggles Skin protection: This recommendation applies only to the product stated in the safety data sheet, supplied by us and for designated use. When dissolbing in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g KCL GmbH, D-36124 Eichenzel. Material: Nitrial Rubber, Minimum layer thicknes:0.11mm, Break through time:480min. Material tested: KCL 741 Dermatril L Body Protection: Protective clothing Respiratory Protection: Required when dusts are generated. Our recommendation on filtering respiratory protection are based on the following standards:DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system Control of environment exposure: Do not let product enter drains

Section 9: Physical and Chemical Properties

Appearance	Form:Powder Color:White
Odor	Odorless
Odor Threshold	No data available

Melting Point	293°C(559°f)	**pH**	No data available
Freezing Point	N/A	**Vapor Pressure**	No data available
Boiling Point/Range	No data available	**Vapor Density**	No data available
Decomposition temperature	No data available	**Viscosity**	No data available
Partition Coefficient: n-octanol/water	No applicable for inorganic s	**Evaporation Rate**	No data available
Flash Point	No data available	**Autoignition temperature**	No data available
Flammability	This product is not flammable	**Flammability or Explosive Limits:**	
		Lower	No data available
		Upper	No data available

Solubility(ies)	Water solubility: 851 g/l at 20 °C (68 °F) - OECD Test Guideline 105 - completely
Other	Bulk Density: ca.1400-1800 kg/m3 Particle size: ca.0.288mm-mean particle size

Section 10: Stability and Reactivity

Reactivity	No data available
Chemical Stability	This product is chemically stabke under standard ambient conditions (room temperature)
Hazardous Polymerization	Violent reactions possible with: Sodium, Strong oxidizing agents
Conditions to Avoid	No data available
Incompatible Materials	various materls
Hazardous Decomposition Products	In the event of fire:see section 5

Section 11: Toxicological Information

RTECS n/a

Acute Toxicity
LD50 Oral-Rat-male-1,100 mg/kg OECD Test guideline 401) LC50 Inhalation-Rate-female-10min-<=1,975 mg/m3-aerosol Remarks:ECHA LD50 Dermal-Rat-male and female->2000 mg/kg (OECD Test guideline 402) No data avaialble

Skin Corrosion/Irritation
skin-mouse Remarks:(ECHA)

Serious Eye Damage/Irritation
Remarks:Risk of blindness (Regulation (EC) No1272/2008, Annex VI)

Respiratory or Skin Sensitization
Maximization Test-Guinea Pig, Result:Negative (OECD Test guideline 406)

Germ Cell Mutagenicity
Test Type: In Vitro mammalian cell gene mutation test. Test System: Mouse lymphoma cells. Metabolic activation: Without metabolic activation, Result: Negative Remarks:ECHA. Test type: Micronucleus Test, Species:Mouse Cell type: Red clood cells (Erythrocytes) Application Route: Intraperitoneal, Result: Negative, Remarks: (In analogy to similar products) The value is given in analogy to the following substances:Zinc sulfate

Carcinogenicity
IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed humas carcinogen by IARC. NTP: IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed humas carcinogen by NTP. OHA:IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed humas carcinogen by OSHA

Reproductive Toxicity
No data available

Routes of Entry
N/A

Symptoms Related to Exposure
N/A

Potential Health Effects
N/A

Target Organ(s) Inhalation: May cause respiratory irritation

Section 12: Ecological Information

Ecotoxicity
Toxicity to fish: Static test LC50-Oncorhynchus mykiss (Rainbow trout)-0.169 mg/l-96h Remarks (ECHA) Toxicity to daphnia: Static Test EC50- Daphnia magna (water flea)-0.33mg/l-48h (OECD Test guideline 202 Toxicity: Static Test NOEC-Pseudokirchneriella subcapitata (green algea)-0.0049 mg/l-72h (OECD Test Guideline 201) Toxicity to bacteria: Static test IC50-activated sludge-0.35 mg/l-4h (ISO:9509) Remarks: (Reffered to cation) Toxicity to fish (chronic toxicity): Flow-through test NOEC-Oncorhynchus mykiss (Rainbow trout)-0.039 mg/l-30d (OECD Test guideline 215) Toxicity to daphnia and other aquatic invertebrates (Chronic Toxicity): Semi-static test NOEC-Daphnia magna (Water flea)-0.039 mg/l-21D (OECD Test Guideline 211)

Persistance and Degradability
The methods for determining biodegradability are not applicable to inorganic substance

Bioaccumulative Potential
Channa punctata-45D at 27°C (Zinc chloride) bioconcentation fator (BCF):0.4

Mobility in Soil
No data availalbe

Other Adverse Effects
Hazard for drinking water supplies Discharge into the environment must be avoided

Section 13: Disposal Considerations

Waste Disposal
Water material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other water. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers or contact us if you have further questions

Disposal of Container
n/a

Other Considerations
n/a

Section 14: Transport Information

DOT Classification
DOT (US) UN number:2331 Class:8 Packaging group: III Proper shipping name: Zinc Chloride, anhydrous Reportable quantity (RQ): 1000lbs Marine Pollutant: Yes Poison inhalation hazard: No IMDG UN number:2331 Class:8 Packaging group: III EMS-F-A, S-B Proper shipping name: Zinc Chloride, anhydrous Marine Pollutant: Yes IATA UN number:2331 Class:8 Packaging group: III Proper shipping name: Zinc Chloride, anhydrous

Section 15: Regulatory Information

Regulations
This material does not have any components with a section 302 EHS TPQ The following components are subject to reporting levels by SARA Title II Section 313: Zinc Chloride Cas:7646-85-7 Massachusets Rights to know components Zinc Chloride Cas:7646-85-7 Pennsylvania Right to Know componets Zinc Chloride Cas:7646-85-7

Other
n/a

Section 16: Other Information

n/a