SECTI0N 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers
Product name : Zinc Chloride
CAS-No. : 7646-85-7

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet
Company : Central Drug House (P) Ltd
7/28 Vardaan House
New Delhi-10002
INDIA
Telephone : +91 11 49404040
Email : care@cdhfinechemical.com

1.4 Emergency telephone number
Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Acute toxicity, Oral (Category 4), H302
Skin corrosion (Category 1B), H314
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram

Signal word : Danger
Hazard statement(s)
H302 : Harmful if swallowed.
H314 : Causes severe skin burns and eye damage.
H410 : Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances
Formula : Cl₂Zn
Molecular weight : 136.29 g/mol
CAS-No. : 7 646-85-7
EC-No. : 231-592-0
Index-No. : 030-003-00-2

Hazardous ingredients according to Regulation (EC) No 1272/2008
Component Classification Concentration
Zinc chloride Acute Tox. 4; Skin Corr. 1B; <= 100 %
CAS-No. 7646-85-7
EC-No. 231-592-0
Index-No. 030-003-00-2
Chronic 1; H302, H314, H400, H410
Concentration limits:
>= 5 %: STOT SE 3, H335;
M-Factor - Aquatic Acute: 10

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Hydrogen chloride gas, Zinc/zinc oxides

Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
No data available

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities
Handle under nitrogen, protect from moisture. Store under nitrogen. Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

strongly hygroscopic
Storage class (TRGS 510): Non-combustible, corrosive hazardous materials

Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment

**Eye/face protection**
Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If the full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) **Appearance**
   - Form: Crystals with lumps
   - Colour: white

b) **Odour**
   - No data available

c) **Odour Threshold**
   - No data available

d) **pH**
   - 5 at 100 g/l at 20 °C

e) **Melting point/freezing point**
   - Melting point/range: 293 °C

f) **Initial boiling point and boiling range**
   - 732 °C at 1,013 hPa

g) **Flash point**
   - No data available

h) **Evaporation rate**
   - No data available

i) **Flammability (solid, gas)**
   - No data available

j) **Upper/lower flammability or explosive limits**
   - No data available

k) **Vapour pressure**
   - 1 mmHg at 428 °C

l) **Vapour density**
   - No data available

m) **Relative density**
   - 2.907 g/cm³

n) **Water solubility**
   - Soluble

o) **Partition coefficient: n-octanol/water**
   - No data available

p) **Auto-ignition temperature**
   - No data available

q) **Decomposition temperature**
   - No data available
r) Viscosity No data available
s) Explosive properties No data available
t) Oxidizing properties No data available

9.2 Other safety information
Bulk density 1,400 - 1,800 kg/m³

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Exposure to moisture

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Zinc/zinc oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity
LD₅₀ Oral - Rat - 350 mg/kg(Zinc chloride)

Skin corrosion/irritation
No data available(Zinc chloride)

Serious eye damage/eye irritation
No data available(Zinc chloride)

Respiratory or skin sensitisation
No data available(Zinc chloride)

Germ cell mutagenicity
No data available(Zinc chloride)

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available(Zinc chloride)

Specific target organ toxicity - single exposure
No data available(Zinc chloride)

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available(Zinc chloride)
Additional Information
RTECS: ZH1400000

Zinc chloride and its aqueous solutions are corrosive to the eyes and skin and produce chemical burns, particularly on areas where the skin is broke throat, and digestive tract which can include symptoms of stomach pain, n blood in the urine, and shock. Inhalation irritates the nose and throat p vomiting, shortness of breath, difficulty in breathing (onset may be dela occurred by inhalation and ingestion.(Zinc chloride) To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Zinc chloride)

SECTION 12: Ecological information

12.1 Toxicity
Toxicity to fish LC50 - Cyprinus carpio (Carp) - 0.4 - 2.2 mg/l - 96.0 h(Zinc chloride)
Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 0.2 mg/l - 48 h(Zinc chloride)
Toxicity to algae Growth inhibition LOEC - Pseudokirchneriella subcapitata - 12.5 mg/l - 96 h(Zinc chloride)

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
Bioaccumulation Pimephales promelas (fathead minnow) - 63 d (Zinc chloride)
Bioconcentration factor (BCF): 21,000

12.4 Mobility in soil
No data available(Zinc chloride)

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 2331 IMDG: 2331 IATA: 2331

14.2 UN proper shipping name
ADR/RID: ZINC CHLORIDE, ANHYDROUS
IMDG: ZINC CHLORIDE, ANHYDROUS
IATA: Zinc chloride, anhydrous
14.3 Transport hazard class(es)
   ADR/RID: 8          IMDG: 8          IATA: 8
14.4 Packaging group
   ADR/RID: III        IMDG: III        IATA: III
14.5 Environmental hazards
   ADR/RID: no         IMDG Marine pollutant: yes  IATA: no
14.6 Special precautions for user
   No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
   This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment
   For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Further information
   The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.