

MATERIAL SAFETY DATA SHEET**ZINC CARBONATE (TS CARB)***TSIPL/MSDS/005/18, Revision No and Date: 03/03-01-2018***1. Identification of Substance and Manufacturer****1.1 Product details**

| | |
|--------------------------|---|
| Product name | : Zinc carbonate |
| Other Name | : TS Carb, Basic Zinc carbonate |
| CAS No. | : 5263-02-5 51839 – 25 - 9 |
| Molecular Formula | : $3[\text{Zn}(\text{OH})_2].2[\text{ZnCO}_3].\text{H}_2\text{O}$ $\text{Zn}(x/2+y).(\text{OH})x.(\text{CO}_3)y$ |
| Molecular weight | : 566.90 |
| Reach Registration No. | : 01-2119474697-20-0001 |
| Relevant identified uses | : Transparent activator in rubber, mainly in footwear sole. Oil Drilling Fluids: It is used as a Sulfide scavenger for water based drilling fluids. Pharmaceuticals: It is used as an ointment for skin treatment, Calamine lotion and Veterinary medicines. Cosmetics: Used in beauty care cosmetics and medicated powder. |

1.2 Company details**TRANSPEK – SILOX INDUSTRY PRIVATE LIMITED**

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Contact Person: Factory Manager

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2. Hazard identification
2.1 Classification according to regulation (EC) 1272/2008 [EU-GHS/CLP]

| | Min | Max |
|--------------|-----|---|
| Flammability | 0 | |
| Toxicity | 0 | |
| Body Contact | 1 |  |
| Reactivity | 0 | |
| Chronic | 0 | |

| Acute toxicity, Oral | Acute aquatic toxicity | Eye irritation |
|----------------------|------------------------|---------------------|
| Category – 1 | Category – 1 | Category – 1 |

| | NFPA Rating | HMIS Rating |
|---------------------|-------------|-------------|
| Health | 1 | 1 |
| Flammability | 0 | 0 |
| Reactivity | 0 | 0 |

Classification according to EU Directives 67/548/EEC or 1999/45/EC

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

OSHA hazard category:

Hazardous, OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin and / or eye irritant.

2.2 Labeling elements according Regulation (EC) No 1272/2008 [CLP]

Pictogram



GHS09

Signal word

: Warning.

Hazard statements

- : H400 (100%): Very toxic to aquatic life
[Warning Hazardous to the aquatic environment, acute hazard]
- : H410 (100%): Very toxic to aquatic life with long lasting effects
[Warning Hazardous to the aquatic environment, long-term hazard]
- : H361: Suspected of damaging fertility or the unborn child
[Warning Reproductive toxicity]
- : H370: Causes damage to organs
[Danger Specific target organ toxicity, single exposure]

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Precautionary statements
(Prevention) : P273 – Avoid release to the environment.

Precautionary statements
(Response) : P391 – Collect spillage

Precautionary statements
(Disposal) : P501 – Dispose of contents / container to hazardous or special waste collection area or in accordance regulations.

3. Composition / Information on ingredients

According to regulation 1994 / 2012 OSHA Hazard communication standard: 29 CFR Part 1910.1200

| CAS No. | Content | Substance Name | EINECS / EC No |
|---------------|---------|----------------|----------------|
| 5263 – 02 – 5 | ≥ 98 % | Zinc Carbonate | 226 – 076 – 7 |

4. First-aid measures

4.1 • General advice:

- Consult a physician. Show this MSDS to the doctor.

• In case of skin contact:

- Wash off with soap and plenty of running water.
- Consult a physician

• If inhaled:

- Remove victim from exposure area to fresh air immediately.
- If breathing is difficult, medical oxygen may be administered, if available.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

• In case of eye contact:

- Remove contact lenses.
- Irrigate exposed eyes with copious amounts of water for at least 15 minutes.
- If irritation, pain, swelling, lacrimation, or photophobia persist after 15 minutes of irrigation, the patient should be seen in a healthcare facility

• If swallowed:

- Rinse mouth with water.
- Immediately give a glass of water.
- Avoid to give anything by mouth to an unconscious person
- First aid is not generally required.
- If in doubt, contact a Poisons Information Centre or consult a physician.

• Note to physician:

Treat according to symptoms (decontamination, vital functions).

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4.2 Symptoms and effects, both acute and delayed

The following applies to zinc compounds in general: only slightly absorbable via the gastrointestinal tract. Adstringent effect on mucous membranes. Metal-fume fever after inhalation of large quantities.

4.3 Indication of immediate medical attention and special treatment needed

Treat symptomatically.

- Absorption of zinc compounds occurs in the small intestine.
- The metal is heavily protein bound.
- Elimination results primarily from faecal excretion.
- The usual measures for decontamination (Ipecac Syrup, lavage, charcoal or cathartics) may be administered, although patients usually have sufficient vomiting not to require them.
- CaNa₂EDTA has been used successfully to normalise zinc levels and is the agent of choice.

5. Fire-fighting measures**5.1 Extinguishing media:**

- *Suitable extinguishing media:*

Product is not flammable, In case of fire, use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

- *Unsuitable extinguishing media:* None known

5.2 Special hazards arising from the substance:

- *Hazards during fire – fighting:* Carbon dioxide, Carbon monoxide.

5.3 Precautions for fire-fighters:

- *Protective equipment:*

Carbon dioxide, Carbon monoxide & Zinc oxide fumes may be released in a fire. Fire fighters must be fully trained and wear full protective clothing including an approved, self contained breathing apparatus which supplies a positive air pressure within a full face piece mask.

6. Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- *Eyes:* Wear safety goggles.
- *Skin:* Wear appropriate nitrile or rubber gloves, apron and safety shoes. Avoid contact with skin, eyes and clothing.
- *Inhalation:* Avoid dust formation. Avoid breathing dust, vapors. Wear respiratory protection.
- *Other:* Ensure adequate ventilation, Evacuate personnel to safe areas. Keep unprotected persons away.
See Section 8

6.2 Environmental precautions

- Waste zinc carbonate should be handled and disposed of in a manner which complies with local, state / federal regulations.
- It may cause adverse long-term effects in the aquatic environment. Keep out of sewers, ditches or drains.
See Section 8

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6.3 Method for containment and cleaning up

Small spill – sweep up material for disposal or recovery. Large spills – Shovel material into containers. Thoroughly sweep area of spill to clean up any residual material. In case of large spills, follow the facility emergency response procedures.

6.4 Evacuation procedures

Isolate the spill area to prevent people from entering it until the clean up is complete

7. Handling and storage**7.1 Precautions for safe handling**

- Ensure good ventilation / exhaustion at work place.
- Keep containers tightly sealed.
- Store in cool and dry place.
- Closed containers should be opened in well – ventilated area.
- Avoid dust.
- Avoid contact with skin, eyes and clothing.
- Wash hands with soap, water and other exposed areas with water after handling.
- Handle empty containers with care.

7.2 Precautions for safe storage

- Suitable containers:
 - Lined metal can, lined metal pail/ can.
 - Plastic pail.
 - Polyliner drum.
- Storage incompatibility
 - **WARNING:** Avoid or control reaction with peroxides. All transition metal peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively.
 - The pi-complexes formed between chromium(0), vanadium(0) and other transition metals (haloarene-metal complexes) and mono-or poly-fluorobenzene show extreme sensitivity to heat and are explosive.
 - Metals and their oxides or salts may react violently with chlorine trifluoride and bromine trifluoride.
 - These trifluorides are hypergolic oxidisers. They ignite on contact (without external source of heat or ignition) with recognised fuels - contact with these materials, following an ambient or slightly elevated temperature, is often violent and may produce ignition.
 - The state of subdivision may affect the results.
- Storage
 - Keep container tightly closed when not in use.
 - Store containers in a cool dry location, away from direct sunlight, sources of intense heat, or where freezing is possible.
 - Store containers away from incompatible chemicals (acids). Storage areas should be made of fire-resistant materials.
 - Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.
 - Have appropriate extinguishing equipment in the storage area.
 - Empty containers may contain residual particles; therefore, empty container should be handled with care.
 - Never store food, feed, or drinking water in containers, which held this product.
 - Do not store this material in open or unlabeled containers

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8. Exposure controls and personal protection**8.1 Control parameters: Compound with occupational exposure limits.**

The product does not contain any relevant quantity of materials with critical values that have to be monitored at the work place.

- *Additional information / advice about design of technical systems:*

Provide local exhaust ventilation to control vapors / mists.

Use properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minutes.

8.2 Exposure controls:

- *General protective hygienic measures:*

Keep away from foodstuffs, beverages and food, Instantly remove any solid and impregnated garments, Wash hands during breaks and at the end of the work, Maintain an ergonomically appropriate working environment, Handle in accordance with safety practice.

- *Appropriate engineering controls*

Use mechanical ventilation such as dilution and local exhaust. Use a corrosion-resistant ventilation system and exhaust directly to the outside. Supply ample air replacement. Provide dust collectors with explosion vents

- *Personal protective equipments*

**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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Wash and dry hands.

Penetration time of glove material in minutes: > 480, Glove thickness: 0.11 mm

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. Wear safety shoes.

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Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. Physical and chemical properties

| | |
|---|------------------------------------|
| a. Physical state at 20 °C | Fine Powder |
| b. Colour | White |
| c. Odour | Odorless |
| d. pH of 10% solution | Not applicable |
| e. Melting point | Product decomposes above 200 °C. |
| f. Boiling point | Not applicable. |
| g. Flash point | Not applicable. |
| h. Bulk Density | 0.4 – 0.6 g/cm ³ |
| i. Solubility | Insoluble in water |
| j. Auto-ignition temperature (°C) | Not applicable. |
| k. Explosion lower/upper limit % | Not explosive. |
| l. Partition coefficient n- octanol / water at 20 °C | Not applicable. |
| m. Evaporation rate | The product is non volatile solid. |
| n. Vapour pressure | Not applicable. |
| o. Viscosity | Not applicable as product is solid |
| p. Specific Gravity | 4.398 (Water = 1) |

10. Stability and reactivity

- 10.1 Reactivity:** Not inherently chemically reactive. Contact with strong acids may cause vigorous reaction.
- 10.2 Stability:** Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Material to avoid / Incompatible material:** Acids, oxidizing agents.
- 10.5 Condition to avoid:** Avoid humidity, Keep away from acid & alkali.
- 10.6 Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

See Section 7

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11. Toxicological information**11.1 Primary routes of exposure:**

Routes of entry for compounds are ingestion and inhalation but may also include eye and skin contact. Dust can cause mild mechanical irritation to the eye. No skin irritation is expected from a single short-term exposure to this product.

11.2 Information on toxicological effects**Acute toxicity :**

LD50 Oral, Mouse - > 10000 mg/kg,

Skin irritation: 24 h, May be harmful if absorbed through skin. May cause skin irritation.

Serious eye damage/eye irritation: Mild eye irritation - 24 h

Respiratory sensitization: No known significant effects or critical hazards.

Germ cell mutagenicity: Not active in genetics assay.

Carcinogenicity:

IARC: No components 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: Not considered as reproductive toxicity.

Aspiration hazard: no data available

Potential health effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: Harmful if swallowed.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information**12.1 Toxicity:**

Toxicity to fish: LC50 - *Leuciscus idus* (Golden orfe) - > 5000 mg/Kg - 96 hr

Toxicity to daphnia and other aquatic invertebrates- LC50-other microorganisms - > 2000 mg/l - 16 hr

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available.

12.4 Mobility in soil: No data available

12.5 Other adverse effects: Toxic to aquatic life, no data available

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

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13. Disposal considerations
13.1 Waste treatment method

The material does not have an EPA waste number and is not a listed waste. Keep out of sewers, ditches or drains. All wastes must be handled and disposed of in accordance with applicable regulations

Method: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal or spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. This product is recyclable. Consideration of disposal via this route should be given.

Contaminated packaging: Do not reuse empty containers. Dispose of as unused product, Recommend crushing, puncturing, or other means to prevent unauthorized use of used containers as per comply with local regulations for disposal

The information offered in this section is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the product and alter the waste classification and proper disposal methods.

14. Transportation information

14.1 Not classified as hazardous under transport regulations (ADR / RID / ADNR / IMDG/ ICAO / IATA)

14.2 UN-Number

ADR/RID: 3077

IMDG: 3077

IATA: 3077

14.3 UN proper shipping name

| ADR/RID | IMDG | IATA |
|---|------|------|
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc carbonate basic) | | |

14.4 Transport hazard class

ADR/RID: 9

IMDG: 9

IATA: 9

14.5 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.6 Environmental hazards

ADR/RID: No

IMDG: Yes, Marine pollutant

IATA: No

14.7 Labeling

14.8 Special precautions for users

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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15. Regulatory information

Hazard Statement: Refer section 2.2

Precautionary Statement: Refer section 2.2

European Union

This product is not classified according to the EU regulation.

National Fire Protection Association (USA):

Health: 1, Flammability: 0, Reactivity: 0, Specific Hazard: 0.

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

| Component | TSCA | DSL | NDSL | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|--|------|-----|------|--------|-----|-------|------|------|-------|------|
| Di[carbonato(2-)]hexahydroxy pentazinc | - | - | - | - | - | - | X | X | - | - |

16. Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

*We support worldwide **Responsible care** initiative. We value and care our employees, customers, suppliers and neighbors and the protection of the environment.*

*Our commitment to **Responsible care** is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our product and minimizing the impact of our operations on society and the environment during manufacturing, storage, transport, use and disposal of our products.*

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-----*End of MSDS*-----