MATERIAL SAFETY DATA SHEET

ZINC HYDROXIDE (Wet Cake)

1. Identification of Substance and Manufacturer

1.1 Product details

Product name	:	**Zinc Hydroxide**
Other Name	:	Hydro Cake
CAS No.	:	20427-58-1
Chemical Formula	:	$Zn(OH)_2$
Molecular Weight	:	99.42 gm/mole
Relevant identified uses	:	It is used to manufacturing Zinc oxide, Zinc carbonate, Zinc phosphate etc.

1.2 Company details

TRANSPEK – SILOX INDUSTRY PRIVATE LIMITED
Kalali Road, Atladra, Vadodara – 390 012, Gujarat, India
Telephone : +91 265 2680401-05
Fax : +91 265 2680407 / 2680062

1.3 Emergency contact details

Telephone: +91 265 2680401, Email : info@transpek-silox.com
Contact Person: Factory Manager

2. Hazard identification

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

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	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

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

Pictogram

GHS09

Signal word : Warning.

Hazard statements : H333 – May be harmful if inhaled.
: H316 – Causes mild skin irritation.
: H410 – Very toxic to aquatic life with long lasting effects
: H320 – Causes eye irritation.

Precautionary statements ***(Prevention)***	: :	P273 – Avoid release to the environment. P264 – Wash all exposed external body areas thoroughly after handling.
Precautionary statements ***(Response)***	: : : : :	P391 – Collect spillage. P304+P312 – IF INHALED: Call a POISON CENTER / doctor/physician/first aider/if you feel unwell. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 – If skin irritation occurs: Get medical advice. P337+P313 – If eye irritation persists: Get medical advice / attention.
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.	Zn Content	Substance Name	EINECS / EC No
20427-58-1	≥ 74 % Dry Base	Zinc Hydroxide	243-814-3

4. First-aid measures

4.1

- **General advice:**

Consult a physician. Show this MSDS to the doctor.

- **In case of skin contact:**
  - Immediately remove all contaminated clothing, including footwear.
  - Flush skin and hair with running water (and soap if available).
  - Seek medical attention in event of irritation.

- **In case of eye contact:**
  - Remove contact lenses and irrigate exposed eyes with copious amounts of water for at least 15 minutes.
  - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
  - If irritation, pain, swelling, lacrimation, or photophobia persist after 15 minutes of irrigation, the patient should be seen in a healthcare facility.
  - Eye injury should only be undertaken by skilled personnel.

- **Inhalation:**
  - Rinse mouth with water, Avoid to give anything by mouth to an unconscious person
  - If fumes or combustion products are inhaled remove from contaminated area.
  - Lay patient down. Keep warm and rested.
  - Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
  - Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
  - Transport to hospital, or doctor.

- **In case Ingestion:**
  - Immediately give a glass of water.
  - First aid is not generally required. If in doubt, contact a doctor.

4.2 Symptoms and effects, both acute and delayed

- Zinc hydroxide can irritate the respiratory tract.
- Prolonged skin contact can produce a severe dermatitis called oxide pox.
- Exposure to high levels of can cause metallic taste, marked thirst, coughing, fatigue, weakness, muscular pain, and nausea followed by fever and chills.
- Severe overexposure may result in bronchitis or pneumonia with a bluish tint to the skin.
- Reversible liver enzyme abnormalities. Diarrhoea.

4.3 Indication of immediate medical attention and special treatment needed

- 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,
- *Unsuitable extinguishing me*dia: None known
- Special hazards arising from the substance: Metal & metal oxide.

5.3 Precautions for fire-fighters:

- *Protective equipment:*

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.

- *Fire fighting :* Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area.

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.

For details see Section 8

6.2 Environmental precautions

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

For details see Section 12

6.3 Method for containment and cleaning up

- Small spill:
  - Sweep & clean up material immediate for disposal or recovery.
  - Remove all ignition sources.
  - Avoid contact with skin and eyes.
  - Control personal contact with the substance, by using protective equipment.

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.
- **CAUTION**: Advise personnel in area.
  Alert Emergency Services and tell them location and nature of hazard.
- Control personal contact by wearing protective clothing

6.4 Evacuation procedures

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

Personal Protective Equipment advice is contained in Section 8 of the MSDS

7. Handling and storage

7.1 Precautions for safe handling

- Ensure good ventilation / exhaustion at work place.
- Keep bags / containers closed.
- Closed containers/bags should be opened in well – ventilated area.
- Avoid contact with skin, eyes and clothing.
- Wash hands with soap and water and other exposed areas with water after handling.
- Handle empty bags / containers with care.
- Prevent concentration in hollow and sumps.

7.2 Precautions for safe storage

- Absorbs CO_2 upon exposure to air. Keep bags / container closed when not in use.
- Store bags / containers under covered area, away from direct sunlight, sources of intense heat, or where freezing is possible.
- Store bags / containers away from incompatible chemicals (chlorinated rubber, zinc chloride, phosphoric acid etc).
- Inspect all incoming bags / containers before storage, to ensure bags / containers are properly labeled and not damaged.
- Have appropriate extinguishing equipment in the storage area.
- Empty bags / containers may contain residual particles; therefore, it should be handled with care.
- Never store food, feed, or drinking water in storage area.
- Do not store this material in open or unlabeled bags / containers

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7.3 Storage incompatibility

- May react, explosively with magnesium and chlorinated rubber when heated
- Incompatible with linseed oil (may cause ignition)
- 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 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.
- Avoid strong acids, bases.

8. Exposure controls and personal protection

8.1 Control parameters: Compound with occupational exposure limits.

Component: Zinc compound

- ACGIH TWA **:** 10 mg / m^3 – total dust

- ACGIH STEL **:** 10 mg / m^3 – total dust

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.

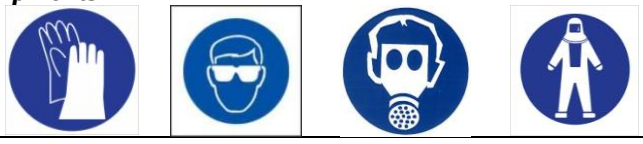
- *Appropriate engineering controls*

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

- Process controls which involve changing the way a job activity or process is done to reduce the risk.
- Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Personal protective equipments



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ZINC HYDROXIDE (Wet Cake)

Eye/face protection

- Face shield.
- Safety glasses with side shields
- Soft contact lenses may absorb and concentrate irritants.

Skin & Body protection

- The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer.
- Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.
- Personal hygiene is a key element of effective hand care.
- Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.
  - Polychloroprene.
  - Nitrile rubber.
  - Butyl rubber.
- 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.
- Penetration time of glove material in minutes: > 480, Glove thickness: 0.11 mm.
- 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.

Respiratory protection

- Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Use approved positive flow mask if significant quantities of dust becomes airborne.
- Try to avoid creating dust conditions.

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9. Physical and chemical properties

a.	**Physical state at 20 ^{0}C**	Wet cake
b.	**Colour**	Light yellow
c.	**Odour**	Odorless
d.	**pH of 1% solution**	6.5 – 8.5
e.	**Melting point**	Not applicable as state is wet cake
f.	**Boiling point**	Not applicable
g.	**Flash point**	Not applicable.
h.	**Density (Dry powder)**	0.8 – 1.1 g/cm^3
i.	**Solubility**	0.00016 g / 100 ml cold water; soluble in acids and bases
j.	**Auto-ignition temperature (^{0}C)**	Not applicable.
k.	**Explosion lower/upper limit %**	Not explosive.
l.	**Partition coefficient n- octanol / water at 20 ^{0}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

10. Stability and reactivity

10.1 **Reactivity:** Not inherently chemically reactive. Zinc hydroxide and chlorinated rubber reacts violently @ 215 deg C. Contact with magnesium and linseed oil can cause violent reaction. Contact with strong acids may cause vigorous reaction. Contact with strong bases will form water and soluble zincates. Contact between zinc oxide and hydrogen fluoride, aluminum + hexachloroethane, zinc chloride or phosphoric acid, and water should be avoided

See Section 7

10.2 **Stability:** Stable under recommended storage conditions. Unstable in the presence of incompatible materials. Hazardous polymerisation will not occur.

10.3 **Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.

See Section 7

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 5

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ZINC HYDROXIDE (Wet Cake)

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 of dry cake can cause mild mechanical irritation to the eye. No skin irritation is expected from a single short-term exposure to this product. Ingestion of large doses may cause gastrointestinal irritation and vomiting.

11.2 Information on toxicological effects

Potential health effects

Ingestion: Harmful if swallowed. May cause constipation, fever and stomach cramps.

Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

Soluble zinc salts produces irritation and corrosion of the alimentary tract (in a manner similar to copper salts) with pain, vomiting, etc. Delayed deaths have been ascribed to inanition (weakness and extreme weight loss resulting from prolonged and severe food insufficiency) following severe strictures of the oesophagus, and pylorus. Vomiting, abdominal cramps, and diarrhea, in several cases with blood, have been observed after ingestion of zinc sulfate.

Several cases of gastrointestinal disturbances have been reported after ingestion of zinc sulfate. A significant reduction in erythrocyte superoxide dismutase activity (47% decrease), hematocrit, and serum ferritin, compared to pretreatment levels, occurred in female subjects who received supplements (as capsules) of 50 mg zinc/day as zinc gluconate for 10 weeks.

Eyes: May cause eye irritation.

Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present 20-24 hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur

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

Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.

The material may produce mild skin irritation; limited evidence or practical experience suggests, that the material either:

- produces mild inflammation of the skin in a substantial number of individuals following direct contact, and/or
- produces significant, but mild, inflammation when applied to the healthy intact skin of animals (for up to four hours), such inflammation being present twenty-four hours or more after the end of the exposure period.

Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (non allergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.

Open cuts, abraded or irritated skin should not be exposed to this material.

Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

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

Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.

Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.

Effects on lungs are significantly enhanced in the presence of respirable particles. Overexposure to respirable dust may produce wheezing, coughing and breathing difficulties leading to or symptomatic of impaired respiratory function.

Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

Inhalation of freshly formed zinc oxide particles sized below 1.5 microns and generally between 0.02 to 0.05 microns may result in "metal fume fever", with symptoms resembling influenza. Symptoms may be delayed for up to 12 hours and begin with the sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lassitude and a generalised feeling of malaise. Mild to severe headache, nausea, occasional vomiting, fever or chills, exaggerated mental activity, profuse sweating, diarrhoea, excessive urination and prostration may also occur.

Chronic:

Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

Overexposure to respirable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity, chest infections.

Repeated exposures, in an occupational setting, to high levels of fine- divided dusts may produce a condition known as pneumoconiosis which is the lodgement of any inhaled dusts in the lung irrespective of the effect. This is particularly true when a significant number of particles less than 0.5 microns (1/50,000 inch), are present. Lung shadows are seen in the X-ray.

Zinc is necessary for normal fetal growth and development. Fetal damage may result from zinc deficiency. Only one report in the literature suggested adverse developmental effects in humans due to exposure to excessive levels of zinc. Four women were given zinc supplements of 0.6 mg zinc/kg/day as zinc sulfate during the third trimester of pregnancy.

Signs and Symptoms of Exposure

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

Germ cell mutagenicity: Not active in genetics assay.

Carcinogenicity: Not classified as to human carcinogenicity.

Reproductive toxicity: Not considered as reproductive toxicity.

Aspiration hazard: no data available

12. Ecological information

12.1 Toxicity:

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) – 1.1 – 2.5 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates - EC50 - Daphnia magna – 0.0098 mg/l - 48 h

Acute EC50 0.17 mg/l Algae Selenastrum Capricornutum - 72 hours

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.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.
Wastes resulting from use of the product must be disposed of on site or at approved waste sites.
Metal-containing inorganic substances generally have negligible vapour pressure and are not expected to partition to air. Once released to surface waters and moist soils their fate depends on solubility and dissociation in water. Environmental processes (such as oxidation and the presence of acids or bases) may transform insoluble metals to more soluble ionic forms. Microbiological processes may also transform insoluble metals to more soluble forms.
For zinc and its compounds:

Environmental fate:
Zinc is capable of forming complexes with a variety of organic and inorganic groups (ligands). Biological activity can affect the mobility of zinc in the aquatic environment, although the biota contains relatively little zinc compared to the sediments. Zinc bioconcentrates moderately in aquatic organisms; bioconcentration is higher in crustaceans and bivalve species than in fish. Zinc does not concentrate appreciably in plants, and it does not biomagnify significantly through terrestrial food chains.
DO NOT discharge into sewer or waterways.

Not readily biodegradable|Daphnia magna LC50 (48 h): 0.98 mg/l|Algae EC50: 0.03 mg/l

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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 Bags / containers. Dispose of as unused product, Recommend crushing, puncturing, or other means to prevent unauthorized use 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.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.

- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

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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 oxide)		

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

15. Regulatory information

Hazard Statement: *Refer section 2.2*

Precautionary Statement: *Refer section 2.2*

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.

Disclaimer:

The Transpek – Silox Industry Private Limited (TSIPL) provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only guide to the appropriate precautionary handling of the material by a properly trained person using this product. The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. TSIPL will not be responsible for damages resulting from use of or reliance upon the information. Recipients of our product must take responsibility for observing existing laws and regulations

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