

Physical

If suspended in air (dust cloud), Zinc Dust powder can be ignited in the presence of an ignition source and cloud pose an explosion risk in a confined environment

Chemical

Prolonged contact with water may result in reaction releasing flammable hydrogen gas - Fire and Explosion dust.

4. FIRST AID MEASURES

Inhalation: *Move the victim to fresh air. Consult doctor, if feeling unwell.*

Skin Contact: *Wash off with plenty of water - Remove the contaminated clothing.*

Eye Contact: *Rinse eye with running water. Obtain medical attention if irritation symptoms persist.*

Ingestion: *Rinse out mouth and then drink copious amount of water. Induce vomiting. Obtain medical attention.*

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Agents

a) *Gently smother burning material with dry sand*

Unsuitable Extinguishing Agents

a) *Water*

b) *CO₂*

c) *Foam*

d) *Dry Chemical Powder*

Special hazards caused by the substance, its products of combustion or resulting gases

a) *Dust can combine with air to form an explosive mixture*

b) *Contact with water releases flammable gas (hydrogen)*

c) *Avoid contact with organic substances*

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

- a) *Avoid formation of dust clouds*
- b) *Keep away ignition sources*
- c) *Avoid inhalation of dusts in all circumstances*

Environmental protection

Do not allow product to enter sewage system or water courses (possible reaction releasing hydrogen)

Measures for cleaning/collection spillages:

- a) *Clean the material using non-sparking tools (eg. Natural fibre broom).*
- b) *Do not flush with water*

7. HANDLING AND STORAGE

Handling

Avoid generation of dust clouds

Avoid sources of sparks or other sources of ignition

Protect against static electricity

Keep work area clean

Avoid accidental contact with reactive materials and chemicals - oxidisers etc

Use non sparking tools

Storage

Store in the supplied containers until used

Keep in closed dry room or store

The area should be suitably marked to indicate the presence of an ignitable dust

No smoking - warning should be present

Avoid sparks or other source of ignition

Keep area clean and avoid spillage

Do not store with reactive materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Workplace Exposure

Longterm exposure (TLV) - 8hrs TWA - 10 mg/m³

Exposure Controls

Respiratory Protection

A suitable face mask is recommended if regular exposure is unavoidable. If workplace concentration requires the use of respiratory protection - Use filter types

Eye protection

Required, Irritation may occur as with any dust entering the eye - wash out immediately if it occurs.

Skin Contact

Suitable gloves recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

<i>Physical State</i>	- Solid
<i>Form</i>	- Irregular particles
<i>Color</i>	- Grey
<i>Odour</i>	- Odourless
<i>P.H.</i>	- N/A
<i>Boiling Temperature</i>	- 906°C
<i>Melting Temperature</i>	- 419°C
<i>Flash Point</i>	- N/A
<i>Autoflammability</i>	- Product is not self igniting.
<i>Explosive properties</i>	- Zinc powder may be explosive if disperse into a dust cloud in air in the presence of a source of ignition. Lower Explosive Limit (LEL) - 500gm/m ³
<i>Minimum Ignition Temperature</i>	- Cloud 680°C Layer 460°C
<i>Oxidising properties</i>	- Will react exothermically if mixed with a strong oxidising substance and ignited
<i>Real Density</i>	- 7.13 gm/cm ³
<i>Solubility</i>	- Insoluble in water

10. STABILITY AND REACTIVITY

Stability

Stable when dry. No decomposition

Reactivity

*May react with acids or oxidising agents or halogenated hydrocarbons
Prolonged contact with water can cause a reaction releasing hydrogen gas.*

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

No data available

Chronic Toxicity

*May cause irritation to the respiratory tract and eyes, May cause mild sensitization dermatitis.
TLV - 10mg/m³ (General Dust Limit)*

12. ECOLOGICAL INFORMATION

Mobility/Degradability

Will convert to Zinc oxide during prolonged contact with water

Ecotoxicity

Zinc is ecotoxic

Toxic to aquatic organisms

13. DISPOSAL CONSIDERATIONS

Waste

Dispose of in line with regional or national regulations.

Avoid product entering watercourses/sewer systems

14. TRANSPORT INFORMATION

Transport over land ADR/RID class - 4.3

Transport over sea IMDG class - 4.3

Transport over ICAO/IATA class - 4.3

Packaging group - II

15. REGULATORY INFORMATION

Label :UN classification - 4.3 Dangerous when wet

Risks

Risks Phrase - 10,15

R-10- Flammable

R-15-Contact with water liberates

extremely flammable gas

Safety

Safety Phrase - 7/8, 43.6

S-7/8- Keep container tightly

closed and dry

S-43.6- In case of fire use sand

- Never use water

16. OTHER INFORMATION

The information contained herein is based on the present state of our knowledge.

It is believed to be reliable but no representation, guarantee of any kind are made.