



SAFETY DATA SHEET

PRODUCT NAME: ZINC DUST
 EFFECTIVE DATE: 18 FEBRUARY 2015
 SCOPE: THIS SDS IS VALID GLOBALLY INCLUDING IN THE U.S.A. AND BRAZIL.
 THIS SDS IS NOT VALID IN THE EEA MEMBER COUNTRIES

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Trade Name: Zinc Dust
 Trade code/grade: This SDS is valid for all product grades
 CAS number: 7440-66-6
 EINECS number: 231-175-3

1.2 Common Uses

Paint, coatings, and metallurgy. No uses advised against.

1.3 Details of the supplier of the data sheet

Supplier Address U.S. Zinc Corporation 2727 Allen Parkway; Suite 800 Houston TX 77019	Supplier Phone +001 713 926 1705	Supplier Contact John Williams	
	Supplier Fax +001 713 924 4829	Contact Email HSE@USZinc.com	Contact Phone +001 281 840 5376

1.4 Emergency Contact

Phone Number: +001 832 723 0322
 +001 888 464 2958 (24 Hour Answering Service)

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

For FIBC package units of >0.45 tons

Environmentally Hazardous Substance Solid
 N.O.S., Class 9, UN 3077, Packing Group III, RQ (Zinc)

For FIBC package units <0.45 tons

Not Regulated

3 COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	Identifiers	% Composition
Zinc dust, stabilized (Zn)	CAS: 7440-66-6 EC: 231-175-3	95-100
Zinc Oxide (ZnO)	CAS: 1314-13-2 EC: 231-100-4	<5%

Note: all other constituents are found at trace levels, for further information please consult the individual product grade TDS.

4 FIRST AID MEASURES

4.1 Description of first aid measures

Skin Contact	Immediately wash with soap and water. Seek medical attention if irritation occurs.
Eye Contact	Immediately flush eyes with plenty of water. Get medical attention if irritation occurs.
Ingestion	Drink plenty of water. Do not induce vomiting. Seek medical attention or contact Poison Control.
Inhalation	Remove victim to fresh air. Seek medical attention if feeling unwell or experiencing respiratory distress

4.2 Most important symptoms and effects, both acute and delayed

Acute: Dry cough, headache, throat irritation
Delayed: No delayed symptoms or effects expected

4.3 Indication of any immediate medical attention and special treatment needed

Bad cough, headache, and/or nausea. Move effected individual to fresh air.

5 FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media	CO2 extinguisher or smother with sand
Unsuitable Extinguishing media	Water

5.2 Special hazards arising from the substance or mixture

Hazards from the substance	Do not inhale explosion or combustion gases. Burning produces heavy smoke.
Hazardous thermal decomposition products	Decomposition products may include Zinc Oxide smoke.

5.3 Advice for fire-fighters

Special protective actions for fire-fighters	Remove undamaged containers from immediate hazard area if able to do so safely
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Special protective equipment for fire-fighters	Suitable breathing apparatus
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6 ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

Avoid breathing dust. Refer to Section 7 and Section 8 for advice on handling/storage and PPE

6.2 Environmental Precautions

Prevent contamination of soil, drains, and surface water. Inform relevant authorities of spill where required.

6.3 Spill Cleanup Recommendation

Avoid dry sweeping or other methods which raise dust. Vacuum or wet-sweep and place into a suitable closable, labeled container for disposal. Dispose of waste via licensed waste disposal contractor.

7 HANDLING AND STORAGE

7.1 Precautions for Safe Handling

This product should be used in accordance with good industrial safety practices and industrial hygiene standards and all local, state, federal, and international regulations. Avoid creating airborne dust. Ensure adequate exhaust ventilation. Workers who handle material should wear gloves and thoroughly wash hands/forearms after exposure. See Section 8.2 if exposure exceeds limits.

7.2 Conditions for Safe Storage/Instabilities

This product should be stored in accordance with all local, state, federal and international regulations. Store product in a cool, dry, well-ventilated space in the original containers. Protect containers from damage and repair if damage occurs. Use all product within 1 year. Keep dry. Wet material may generate hydrogen gas which can accumulate in tightly sealed containers.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Occupational Exposure Limits

Product/Ingredient Name	Exposure limit values (8 hour TWA)
Zinc Oxide (U.S.A. OSHA PEL)	5 mg/m ³ (fumes) 15mg/m ³ (dust; total) 5 mg/m ³ (dust; respirable)
Zinc Oxide (U.S.A. NIOSH IDLH)	500 mg/m ³
Zinc (U.S.A. OSHA PEL)	5 mg/m ³ (fumes)

8.2 Exposure Controls

Respiratory Protection	Avoid creating dust. If exposure levels exceed limits, respiratory protection approved for the work being performed must be worn.
Hand Protection	Always wear glove approved for the work being performed

	when handling Zinc dust.
Skin Protection	Wear normal chemical work clothing.
Eye Protection	Always wear approved protective eyewear if there is a potential for dust being created while handling the material.
General Protective Hygiene Measures	Use local exhaust ventilation to pro-actively reduce dust levels.

8.3 Other

Route(s) of entry	Inhalation and mechanical irritation of eyes and skin
Carcinogen Status	Not a NTP/IARC carcinogen
Signs and symptoms of exposure	Dry throat, cough, and dry itchy skin
Notes	Excess bulk exposure may cause acute respiratory irritation or dry skin

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Silver/grey powder
Typical Particle Size:	2 µm – 8 µm
Flammability Limits:	Not available
Explosive Limits:	Not available
Odor:	Odorless
Vapor Pressure:	@590C = 10 mm HG
Odor Threshold:	Odorless
Vapor Density:	n/a
pH:	Neutral
Relative Density:	7.1
Melting point:	420 °C
Solubility in water:	Negligible
Boiling Point:	907 °C
Flash Point:	Not available
Evaporation Rate	n/a
Specific Gravity:	Varies
Molecular Weight:	65.409

10 STABILITY AND REACTIVITY

Reactivity	Stable under normal, dry conditions
Chemical stability	Bulk dust contact with water or damp air evolves hydrogen. The heat produced during this reaction could ignite the hydrogen. An explosive condition may exist if this happens in a confined space.
Possibility of hazardous reactions	None

Conditions to avoid or incompatible materials	Water, flames, and other possible sources of ignition
Hazardous decomposition products	Potential for ZnO fumes at elevated temperatures

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Routes of Entry	Oral, Inhalation
Acute Toxicity	LD ₅₀ (rat, Inhalation): >5.4 mg/L, 4 hours (Arts, 1996) LD ₅₀ (rat, oral): >2,000 mg/kg (Prinsen, 1996)
Chronic Toxicity	Not available
Mutagenicity	No data available
Carcinogenicity	No data available. Not listed as an IARC Carcinogen. Not listed in the NTP report on carcinogens.

11.2 Acute Exposure Symptoms

Eye Contact	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Inhalation	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the respiratory tract
Skin Contact	No known significant effects or critical hazards
Ingestion	No known significant effects or critical hazards

12 ECOLOGICAL INFORMATION

12.1 Toxicity

May cause long term-adverse effects in aquatic environments.

12.2 Persistence and degradability

Not rapidly degradable

12.3 Bioaccumulative potential

No evidence to indicate significant bioaccumulative potential

12.4 Mobility in soil

No evidence to indicate significant mobility in soil

12.5 Results of PBT and vPvB assessment

ZnO is not PBT or vPvB.

12.6 Other adverse effects

None

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Generation of product waste should be minimized wherever possible. Disposal of product, solutions, and any by-products should comply with the requirements of

environmental protection and waste disposal legislation and any regional or local authority requirements. Dispose of surplus and non-recyclable products via licensed waste disposal contractor. Waste should not be released into sewer system unless regulations permit such release

Containers/Packaging

Generation of packaging waste should be minimized wherever possible. Waste packaging should be recycled when possible. Incineration and/or landfill dumping should only be considered when recycling isn't feasible. Make sure to follow all local, state, federal, and international regulations when disposing of packaging materials.

14 TRANSPORTATION INFORMATION

14.1 USDOT Information

This material is Zinc metal under 100 microns in size.

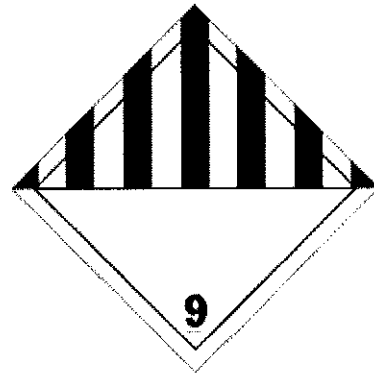
14.2 Material Classification

Packages under 1000 lbs

Not regulated

Packages greater than 1000lbs

Zinc Dust, Class 9, UN 3077, Packing Group III, RQ
(Zinc)



14.3 Special Precautions for User

IATA- Passenger Aircraft	IATA-Cargo Aircraft	IATA-S.P.	IATA-ERG	IMDG-EMS	IMDG-Storage category
911	911	A97	9L	F-A, S-F	A

15 REGULATORY INFORMATION

15.1 EU REACH Information

Product Origin

01-2119467174-37-0057 (Tonnage >1000 t/year)

16 OTHER INFORMATION

16.1 Notes

This Safety Data Sheet (SDS) provides information on the safety requirements for working with this material. This SDS is not a guarantee of the product's properties. The information presented here is believed to be accurate by the preparer utilizing reasonably available published data. We are not responsible for any inadvertent error or omission. Use of this product will include many factors beyond our control and we cannot accept liability for any accident, injury or damage cause by its use.