

ZINC OXIDE, EXTRA

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: ZINC OXIDE, EXTRA PURE

Product Code: 495 CAS#: 1314-13-2

Synonym: Not available Chemical Name: Not available Chemical Formula: OZn Molecular weight: 81.39

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Composition: Not available Name: : ZINC OXIDE, EXTRA PURE Chemical Formula: OZn Molecular weight: 81.39

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture :

Classification according to Regulation (EC) No 1272/2008 Short-term (acute) aquatic hazard (Category 1), H400 Longterm (chronic) aquatic hazard (Category 1), H410.

Potential Chronic Health Effects: Not available.

Carcinogenic Effects: Not available. Mutagenic Effects: Not available. Teratogenic Effects: Not available. **Developmental Toxicity:** Not available.

SECTION 4: FIRST AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact: Wash off immediately with soap and plenty of water. Cover the irritated skin with emollient. Immediate medical attention is required.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give

oxygen. Get medical attention. Serious Inhalation: Not Available.

Ingestion: Do Not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms

appear.

Serious Ingestion: Not available.

SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NOx)













MATERIAL SAFETY DATA SHEET

Sulfur oxides

Hydrogen chloride gas

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

 $\textbf{Environmental precautions:} \ \textbf{Do not let product enter drains.}$

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Storage conditions:

Tightly closed. Dry.

Storage class:

Storage class (TRGS 510): 11: Combustible Solids

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/face protection

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.

Respiratory protection

Respiratory protection is not required. If protection from nuisance levels of dusts are desired, use type N95 or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance : white or faintly yellowish white amorphous powder

Odor : Not available

Color : White

Molecular Weight Not available Not available рΗ **Boiling Point** Not available **Melting Point** Not available **Critical Temperature** Not available Not available Specific Gravity **Vapor Pressure** Not available Not available **Vapor Density** Not available Volatility





MATERIAL SAFETY DATA SHEET

Odor Threshold:Not availableWater/Oil Dist. Coeff.:Not availableIonicity (in Water):Not availableDispersion Properties:Not availableSolubility:Not available

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is chemically stable under standard ambient conditions (room temperature).

Instability Temperature: Not available **Conditions of Instability:** Not available

Incompatibility with various substances: Strong oxidizing agents

Special Remarks on Corrosivity: Non-corrosive. **Special Remarks on Reactivity:** Not available

Possibility of hazardous reactions: Risk of ignition or formation of inflammable gases or vapours with: Fluorine Exothermic reaction with: Aqueous alkaline solution: Strong oxidizing agents: silver in powder form hydrogen

peroxide.

Risk of explosion with: silver salt

Hazardous decomposition products: In case of fire.

SECTION 11: TOXICOLOGICAL INFORMATION.

Acute Toxicity:

LD50 Oral - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 423) LC50 Inhalation - Rat - male and female - 4 h - > 1,79 mg/l - dust/mist

LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402).

Routes of Entry: No data available
Toxicity to Animals: No data available
Chronic Effects on Humans: Not available

Other Toxic Effects on Humans: May cause respiratory irritation

Special Remarks on Toxicity to Animals: Not available

Special Remarks on other Toxic Effects on Humans: Not available **Potential Health:** Liver - Irregularities - Based on Human Evidence

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - 2,525 mg/l - 96 h

Remarks: (ECHA) Toxicity to daphnia and other aquatic

invertebrates static test EC50 - Daphnia magna (Water flea) - 1 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae static test NOEC - Pseudokirchneriella

subcapitata (microalgae) - 0,024 mg/l - 72 h (OECD Test Guideline 201) Toxicity to bacteria static test EC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209) Toxicity to fish(Chronic toxicity) flow-through test NOEC - Oncorhynchus mykiss (rainbow trout) - 0,2 mg/l - 30 d (OECD Test Guideline 215) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: zinc chloride Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) semi-static test EC50 - Daphnia magna (Water flea) - 0,08 mg/l - 21 d (OECD Test Guideline 211)BOD and COD: Biochemical Oxygen Demand (BOD) 13 mg/g Remarks: (IUCLID)

Products of Biodegradation: Not available.

Toxicity of the Products of Biodegradation: Not available

Special Remarks on the Products of Biodegradation: Not Available

SECTION 13: DISPOSAL CONSIDERATIONS





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Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

UN number:

ADR/RID: 3077 **IMDG:** 9 **IATA:** 9

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiourea)

IMDG: 9

Transport hazard class (es): 9

ADR/RID: Yes IMDG: Yes IATA: yes

Packaging group: III

ADR/RID: IMDG: III IATA: III

Environmental hazards:

ADR/RID: Yes IMDG Marine pollutant: Yes IATA:Yes

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use.

National legislation Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. E2

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements:

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects

Other Special Considerations: Not available

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