



ARIHANT CHEMICAL CORPORATION & J.J ENTERPRISE

For paints / inks / plastic / Rubber industries Raw material available with us under self import / Manufacturing / Trading.

Material Safety Data Sheet :-Zirconium Oxide

Identification

PRODUCT NAME: Zirconium Oxide
CATLOG CODE :SLZ1216

RTECS: ZH8800000
TSCA: TSCA 8(b) inventory: Zirconium Oxide
CI#: Not available.
SYNONYM: Zirconium Dioxide

CHEMICAL NAME: Zirconium Oxide
CHEMICAL FORMULA: ZrO_2

Composition

<u>Name</u>	<u>CAS #</u>	<u>% by Weight</u>
Zirconium Oxide	1314-23-4	100

Hazard Identification

POTENTIAL ACUTE HEALTH EFFECTS: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

POTENTIAL CHRONIC HEALTH EFFECTS: CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage.

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Administration /correspondence Office :- Plot No. 319,Room No.3, Ranchoddas Terrace building ,sir Bhalchandra Road, opp Hira House, Near Chhatre Maternity Hospital, Matunga (C.R) Mumbai – 400019 Tel :- +91 22 24148378 / 24146390

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First Aid Measures

First Aid for Eyes:

Dust or powder should be flushed from the eyes with running water for 15 minutes. If irritation persists obtain medical assistance.

First Aid for Skin:

Skin cuts and abrasions can be treated by standard first aid. Skin contamination with dust or powder can be removed with soap and water. If irritation persists obtain medical assistance.

First Aid for Inhalation:

Breathing difficulty, caused by inhalation of dust or fume requires removal to fresh air. If breathing has stopped perform artificial respiration and seek medical assistance at once.

First Aid for Ingestion:

If conscious, give water and induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

Fire Fighting Measures

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

FLAMMABLE LIMITS: Not applicable.

PRODUCTS OF COMBUSTION: Not available.

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FIRE HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES: Not applicable. EXPLOSION HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES:

RISKS OF EXPLOSION OF THE PRODUCT IN PRESENCE OF MECHANICAL IMPACT: Not available. RISKS OF EXPLOSION OF THE PRODUCT IN PRESENCE OF STATIC DISCHARGE: Not available. FIRE FIGHTING MEDIA AND INSTRUCTIONS: Not applicable.

SPECIAL REMARKS ON FIRE HAZARDS: Not available. SPECIAL REMARKS ON EXPLOSION HAZARDS: Not available.

Accidental Release Measures

SMALL SPILL: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

LARGE SPILL: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Handling and Storage

PRECAUTIONS: Do not breathe dust. Keep away from incompatibles such as oxidizing agents.

STORAGE: Keep container tightly closed. Keep container in a cool, well-ventilated area.

SECTION 8: Exposure Controls and Personal Protection

EYE PROTECTION REQUIREMENTS: Safety glasses are recommended.

SKIN PROTECTION REQUIREMENTS: Protective gloves are recommended, to prevent mechanical irritation.

RESPIRATORY PROTECTION: Use an appropriate NIOSH approved respirator if airborne dust concentrations exceed the PEL or TLV. Try to avoid creating dust conditions.

OTHER PROTECTIVE EQUIPMENT: Eye wash fountain should be readily available in areas of use of handling. Handle only with gloves. Safety glasses with side shields should be worn at all times, especially when being exposed to the dust of this product.

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EXPOSURE LIMITS: Not established for product as a whole. Refer to Section 02 above.

VENTILATION REQUIREMENTS: Local exhaust: Recommended, when cutting, grinding, or melting or any other operation where dust or fumes are created.

ENVIRONMENTAL SURVEILLANCE: If the operation generates dust or fumes, exposure to airborne materials should be determined by having air samples taken in the employee breathing zone and work area.

Physical and Chemical Properties

PHYSICAL STATE AND APPEARANCE: Solid. (Powdered solid . Crystals solid . Amorphous solid powder) ODOR: Odorless. TASTE: Tasteless.

MOLECULAR WEIGHT: 123.22 g/mole COLOR: White.

pH (1% soln/water): Not applicable. BOILING POINT: 4300°C (7772°F) MELTING POINT: 2680°C (4856°F)

CRITICAL TEMPERATURE: Not available. SPECIFIC GRAVITY: Density: 5.85 (Water = 1) VAPOR PRESSURE: Not applicable.

VAPOR DENSITY: Not available. VOLATILITY: Not available.

ODOR THRESHOLD: Not available. WATER/OIL DIST. COEFF.: Not available. IONICITY (IN WATER): Not available.

DISPERSION PROPERTIES: Not available.

SOLUBILITY: Insoluble in cold water, hot water. Slightly soluble in Hydrochloric acid, Nitric Acid. Slowly Soluble in HF. Dissolves on heating with a mixture of 2 parts H₂SO₄ and 1 part water.

SECTION 10: Stability and Reactivity

STABILITY: The product is stable. INSTABILITY TEMPERATURE: Not available.

CONDITIONS OF INSTABILITY: Incompatible substances, dust generation p. 4

INCOMPATIBILITY WITH VARIOUS SUBSTANCES: Reactive with oxidizing agents. CORROSIVITY: Non-corrosive in presence of glass.

SPECIAL REMARKS ON REACTIVITY: Not available. SPECIAL REMARKS ON CORROSIVITY: Not available. POLYMERIZATION: Will not occur.

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Ecological Information

ECOTOXICITY: Not available. BOD5 and COD: Not available.

PRODUCTS OF BIODEGRADATION: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

TOXICITY OF THE PRODUCTS OF BIODEGRADATION: The product itself and its products of degradation are not toxic.

SPECIAL REMARKS ON THE PRODUCTS OF BIODEGRADATION: Not available.

10. Disposal Considerations

Product and packaging must be disposed of in accordance with local and national regulations. Because it is a non-renewable resource, waste material is usually a candidate for recycling.

11. Regulatory Information

Federal and State Regulations:

Massachusetts RTK: Zirconium Oxide TSCA 8(b) inventory: Zirconium Oxide

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada). DSCL (EEC):

This product is not classified according to the EU regulations. S24/25- Avoid contact with skin and eyes. S28- After contact with skin, wash immediately with plenty of water. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

HMIS (U.S.A.): Health Hazard: 1 Fire Hazard: 0 Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.): Health: 1

Flammability: 0 Reactivity: 0 Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses

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12. OTHER INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, with a controlled environment. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall TieWay International, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if TieWay International, Inc. has been advised of the possibility of such damages

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Gassarett and Doulls Toxicology, The Basic Science of Poisons.
Hawleys Condensed Chemical Dictionary, Thirteenth Edition

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Industrial Hygiene and Toxicology, by F. A. Patty.

National Library of Medicine, Department of Health and Human Services, Hazardous Substances Data Bank (HSDB).

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OSHA Hazard Communication Standard, 1910.1200 and Z Tables.

Sax Dangerous Properties of Industrial Materials. Tenth Edition.

The Merck Index: An Encyclopedia of Chemicals and Drugs. Merck and Company. Twelfth Edition 1998.

Threshold limit Values for Chemical Substances and Physical Agents in the Work Environmental and Biological Exposure Indices. TLV Booklet, 2001.

All questions should be directed to Customer Service (214-274-4223) for assistance

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