

Material Safety Data Sheet (MSDS)

Common Name: Barium Cerium Yttrium Zirconium Oxide**Emergency No.:** +91-995 832 0889**Shipping:** Not classified as dangerous for transportation via land/inland, air or sea

Section I- General Information

- Product Name/Chemical Formula : Barium Cerium Yttrium Zirconium Oxide /BaCe_xY_yZr_{1-x-y}O_z
CAS Number: BaCeYZr: None
Barium oxide: 1304-28-5
Cerium oxide: 1306-38-3
Yttrium oxide: 1314-36-9
Zirconium oxide: 1314-23-4
- Contact Information: Trixotech Advanced Materials Pvt. Ltd.
Address: Unit-1, B-59/60, Road No. 3, Parsakhara Industrial Area, Bareilly, UP INDIA
Phone: +91-9958320889

Section II. Composition / Information on Ingredients

- Product Name/Chemical Formula : Barium Cerium Yttrium Zirconium Oxide /BaCe_xY_yZr_{1-x-y}O_z (x,y : 0 -1 and x+y<1)
CAS Number: Cerium oxide: 1306-38-3, Barium oxide: 1304-28-5 Yttrium oxide: 1314-36-9, Zirconium oxide: 1314-23-4

Section III. Hazards Identification

- Hazards:
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H335 May cause respiratory irritation
Precautions:
P261 Avoid breathing dust.
P280 Wear protective gloves/ eye protection/ face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Section IV. First Aid Measures

- If inhaled supply fresh air. If required, provide artificial respiration. Seek immediate medical advice.
- In case of skin contact immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.
- In case of eye contact rinse opened eye for several minutes under running water and consult a doctor.
- If swallowed seek immediate medical advice.

Section V. Fire Fighting Measures

- Use dry powder
- Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

Section VI. Accidental Release Measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
- Measures for environmental protection: Do not allow material to be released to the environment without proper governmental permits.
- Measures for cleaning/collecting: pick up mechanically.
- Additional information: See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

Section VII. Handling and Storage

- Information for safe handling: Keep container tightly sealed. Store in cool, dry place in tightly closed containers. No special precautions are necessary if used correctly.
- Information about protection against explosions and fires: This product is not flammable.
- Storage Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Do not store with acids or oxidizing agents. Prevent dust formation.
- Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well sealed containers

Section VIII. Exposure Controls and Personal Protection

- Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
- Components with limit values that require monitoring at the workplace: Limit Values (mg/m³ Component) ACGIH TLV OSHA PEL (None required)
- Additional information: No data
- Personal protective equipment
- General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work.
- Breathing equipment: Use suitable respirator when high concentrations are present.
- Protection of hands: Impervious gloves
- Eye protection: Safety glasses
- Body protection: Protective work clothing.

Section IX. Physical and Chemical Properties

- Form: Powder
- Color: White
- Odor: None
- Melting point/Melting range: Not determined
- Boiling point/Boiling range: Not determined
- Flash point: Not applicable
- Ignition temperature: Not determined
- Decomposition temperature: Not determined
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:

- Lower: Not determined
- Upper: Not determined
- Vapor pressure: Not determined
- Density: Not determined
- Solubility in / Miscibility with Water: Insoluble

Section X. Stability and Reactivity

- Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.
- Materials to be avoided: Strong oxidizing agents
- Dangerous reactions: No dangerous reactions known
- Dangerous products of decomposition: Metal oxide fume

Section XI. Toxicological Information

- Acute toxicity: No data
- Primary irritant effect: on the skin: powder: irritant effect on the eye: powder: irritant effect
- Sensitization: sensitization possible through skin contact
- Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
- Carcinogenicity classification information: This product is or contains no component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Section XII. Environmental Information

- General notes: Do not allow material to be released to the environment without proper governmental permits.

Section XIII. Disposal Information

- Product: Recommendation: Consult state, local or national regulations for proper disposal.
- Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.

Section XIV. Transportation Information

Not a hazardous material for transportation.

- DOT regulations: Hazard class: None
- Land transport ADR/RID (cross-border) ADR/RID class: None
- Maritime transport IMDG: IMDG Class: None
- Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class: None
- Transport/Additional information: Not dangerous according to the above specifications.

Section XV. Regulatory Information

- Product related hazard information: observe the general safety regulations when handling chemicals.
Hazard symbols: no data available
Risk phrases: 43 May cause sensitization by skin contact.
Safety phrases: 53 Avoid exposure - obtain special instructions before use. 45 In case of accident or if you feel unwell, seek medical advice immediately.

Section XVI. Other Information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement 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.

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