Otto Chemie Pvt Ltd

Tel : + 91 22 2207 00 99 fax : 00 91 22 220 77777 Email : info@ottokemi.com , Web : <u>www.ottokemi.com</u>

MATERIAL DATA SAFETY SHEET

Product Name Terbium Oxide, GR 99.99% Cat No. : T 1260 CAS-No 12037-01-3 Synonyms Terbium Oxide 4N; Tervbium Oxide 3N Recommended Use Laboratory chemicals. Uses advised against Not for food, drug, pesticide or biocidal product use Details of the supplier of the safety data sheet

2. Hazard(s) identification

Classification Classification Label Elements None required Hazards not otherwise classified (HNOC) None identified

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Terbium oxide (Tb4O7)	12037-01-3	99.99

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get Company medical attention. Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.

Inhalation Remove from exposure, lie down. Move to fresh air. If not breathing, give artificial respiration. Obtain medical attention.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. Drink

plenty of water. Clean mouth with water. Get medical attention. If possible drink milk afterwards.

Most important symptoms and effects

No information available. Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Carbon dioxide (CO 2). Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Chemical foam. Unsuitable Extinguishing Media No information available Flash Point No information available Method - No information available Autoignition Temperature Not applicable Explosion Limits Upper No data available Lower No data available Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available Specific Hazards Arising from the Chemical Keep product and empty container away from heat and sources of ignition. Hazardous Combustion Products Thermal decomposition can lead to release of irritating gases and vapors Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent)

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors. NFPA

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Environmental Precautions See Section 12 for additional ecological information. Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. Handling and storage

Handling Avoid contact with skin and eyes. Do not breathe dust. Avoid contact with clothing. Remove and wash contaminated clothing before re-use. Do not ingest. Wash thoroughly after handling.

Storage Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Health 0

Flammability 0 Instability 1

Physical hazards N/A

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.

9. Physical and chemical properties

Physical State Powder Solid Appearance Dark brown Odor Odorless Odor Threshold No information available pH No information available Melting Point/Range No data available Boiling Point/Range No information available Flash Point No information available Evaporation Rate Not applicable Flammability (solid.gas) No information available Flammability or explosive limits Upper No data available Lower No data available Vapor Pressure No information available Vapor Density Not applicable Specific Gravity No information available Solubility No information available Partition coefficient; n-octanol/water No data available Autoignition Temperature Not applicable Decomposition Temperature No information available Viscosity Not applicable Molecular Formula O7 Tb4 Molecular Weight 747.69

10. Stability and reactivity

Reactive Hazard None known, based on information available Stability Stable under normal conditions. Air sensitive. Hygroscopic. Conditions to Avoid Incompatible products. Exposure to moisture. Incompatible Materials Strong oxidizing agents, Strong acids, Powdered metals Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors Hazardous Polymerization No information available. Engineering Measures None under normal use conditions. Personal Protective Equipment Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure. Respiratory Protection No protective equipment is needed under normal use conditions. Hygiene Measures

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity Product Information No acute toxicity information is available for this product **Component Information Toxicologically Synergistic** Products No information available Delayed and immediate effects as well as chronic effects from short and long-term exposure Irritation No information available Sensitization No information available Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. Component CAS-No IARC NTP ACGIH OSHA Mexico Terbium oxide (Tb4O7) 12037-01-3 Not listed Not listed Not listed Not listed Not listed Mutagenic Effects No information available Reproductive Effects No information available. Developmental Effects No information available. Teratogenicity No information available. STOT - single exposure None known STOT - repeated exposure None known Aspiration hazard No information available Symptoms / effects,both acute and delayed No information available Endocrine Disruptor Information No information available Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity Do not empty into drains. Persistence and Degradability Insoluble in water Bioaccumulation/ Accumulation No information available. Mobility Is not likely mobile in the environment due its low water solubility.

13. Disposal considerations

Waste Disposal Comply with Federal, State, and local regulation. If approved, remove to land disposal area.

14. Transport information

DOT Not regulated TDG Not regulated IATA Not regulated IMDG/IMO Not regulated

15. Regulatory information

Sec 302 Extremely Hazardous: No Sec 304 Reportable Quantities: N/A Sec 313 Toxic Chemicals: No

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at thedate of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. OSHA: Occupational Safety & Health