OTTO CHEMIE PVT LTD

201, 51-53 Maroo Bhavan, Kalbadevi, Mumbai - 400002, India. Tel : + 91 22 2207 0099 / 6638 2599 Email : info@ottokemi.com, Web : www.ottokemi.com --ISO 9001: 2015----

MATERIAL SAFETY DATA SHEET

1.Identification 1.1GHS Product identifier Cerium(III) chloride anhydrous, beads, -10 mesh, ≥99.99% Code C 8236 2.Hazard identification 2.1Classification of the substance or mixture Skin corrosion, Category 1C Serious eye damage, Category 1 Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1 Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1 2.2GHS label elements, including precautionary statements Pictogram(s) Danger H314 Causes severe skin burns and eye damage Signal word Hazard statement(s) H318 Causes serious eye damage H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long lasting effects Precautionary statement(s) P260 Do not breathe dust/fume/gas/mist/vapours/spray. Prevention P264 Wash ... thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. P273 Avoid release to the environment. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT Response induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P363 Wash contaminated clothing before reuse. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER/doctor/\u2026 P321 Specific treatment (see ... on this label). P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P391 Collect spillage. Storage P405 Store locked up. P501 Dispose of contents/container to ... Disposal 2.3Other hazards which do not result in classification none

3. Composition/information on ingredients

3.1Substances C

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Cerium(III) chloride	Cerium(III) chloride	7790-86-5	none	100%

4.First-aid measures 4.1Description of necessary first-aid measures General advice Consult a physician. Show this safety data sheet to the doctor in attendance. If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. In case of skin contact Wash off with soap and plenty of water. Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. 4.2Most important symptoms/effects, acute and delayed no data available 4.3Indication of immediate medical attention and special treatment needed, if necessary no data available 5.Fire-fighting measures 5.1Extinguishing media Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. 5.2Specific hazards arising from the chemical no data available 5.3Special protective actions for fire-fighters Wear self-contained breathing apparatus for firefighting if necessary. 6.Accidental release measures 6.1Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8. 6.2Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. 6.3Methods and materials for containment and cleaning up Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal. 7.Handling and storage 7.1Precautions for safe handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2. 7.2Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place. 8.Exposure controls/personal protection 8.1Control parameters Occupational Exposure limit values no data available **Biological limit values** no data available 8.2Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. 8.3 Individual protection measures, such as personal protective equipment (PPE) Eye/face protection Safety glasses with side-shields conforming to EN166. Use equipment for eve protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Respiratory protection Wear dust mask when handling large quantities. Thermal hazards no data available 9. Physical and chemical properties Physical state white powder Colour no data available Odour no data available Melting point/ freezing point 722\u00b0C(lit.)

Boiling point or initial boiling 61\u00b0C/0.6mmHg(lit.) point and boiling range Flammability no data available Lower and upper explosion no data available limit / flammability limit Flash point 61\u00b0C(lit.) Auto-ignition temperature no data available Decomposition temperature no data available pН no data available . Kinematic viscosity no data available Solubility no data available Partition coefficient nno data available octanol/water (log value) no data available Vapour pressure 3.97g/mLat 25\u00b0C(lit.) Density and/or relative density Relative vapour density no data available Particle characteristics no data available 10.Stability and reactivity 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions. 10.3Possibility of hazardous reactions no data available 10.4Conditions to avoid no data available 10.5Incompatible materials no data available 10.6Hazardous decomposition products no data available 11.Toxicological information Acute toxicity Oral: no data available Inhalation: no data available Dermal: no data available Skin corrosion/irritation no data available Serious eye damage/irritation no data available Respiratory or skin sensitization no data available Germ cell mutagenicity no data available Carcinogenicity no data available Reproductive toxicity no data available STOT-single exposure no data available STOT-repeated exposure no data available Aspiration hazard no data available 12. Ecological information 12.1Toxicity Toxicity to fish: no data available Toxicity to daphnia and other aquatic invertebrates: no data available Toxicity to algae: no data available Toxicity to microorganisms: no data available 12.2Persistence and degradability no data available 12.3Bioaccumulative potential no data available 12.4Mobility in soil no data available 12.50ther adverse effects

no data available

13.Disposal considerations

13.1Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14.Transport information 14.1UN Number ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.2UN Proper Shipping Name ADR/RID: unknown IMDG: unknown IATA: unknown 14.3Transport hazard class(es) ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.4Packing group, if applicable ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.5Environmental hazards IATA: yes ADR/RID: yes IMDG: yes 14.6Special precautions for user no data available 14.7Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code no data available 15.Regulatory information 15.1Safety, health and environmental regulations specific for the product in question Chemical name EC number Common names and synonyms CAS number Cerium(III) chloride 7790-86-5 Cerium(III) chloride none European Inventory of Existing Commercial Chemical Substances (EINECS) isted EC Inventory _isted. United States Toxic Substances Control Act (TSCA) Inventory Listed China Catalog of Hazardous chemicals 2015 Not Listed New Zealand Inventory of Chemicals (NZloC) Listed.

Section 16: Other Information

Vietnam National Chemical Inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

Not Listed.

Not Listed.

Listed.