



CHEMSYNTH CORPORATION

(Exporter of chemical Raw materials)

B 802 Gundecha, LBS Marg, Kanjurmarg, Mumbai 400 078, India.

Tele: +91 22 2578 9174 fax: +91 22 2569 0837, Email info@chemsynth.co.in

1. Identification Product identifier Ethylhexyl Triazone Other means of identification Catalog number 1265537 Chemical name Benzoic acid, 4,4',4''-(1,3,5-triazine-2,4,6-triyltriimino)tris-, tris(2-ethylhexyl) ester Synonym(s) Octyl triazone Recommended use Specified quality tests and assay use only. Recommended restrictions Not for use as a drug. Not for administration to humans or animals. Manufacturer/Importer/Supplier/Distributor information Telephone RS Technical Services 301-816-8129 Rockville MD 20852-1790 US Company name U. S. Pharmacopeia Address Emergency phone number CHEMTREC within US & Canada 1-800-424-9300 CHEMTREC outside US & Canada +1 703-527-3887 Website E-mail RSTECH@usp.org www.usp.org 12601 Twinbrook Parkway
2. Hazard(s) identification Physical hazards Not classified. Health hazards Not classified. OSHA hazard(s) Not classified. Label elements Hazard symbol No symbol. Signal word Not available. Hazard statement Not available. Precautionary statement Prevention Not available. Response Not available. Storage Not available. Disposal Not available. Hazard(s) not otherwise Not classified. classified (HNOC)
3. Composition/information on ingredients Substance Hazardous components Chemical name Common name and synonyms CAS number % Ethylhexyl Triazone Octyl triazone 88122-99-0 100
4. First-aid measures Inhalation Remove to fresh air. Call a physician if symptoms develop or persist. Skin contact Rinse skin with water. Get medical attention if irritation develops and persists. Eye contact Rinse with water. Get medical attention if irritation develops and persists. Ingestion Rinse mouth thoroughly. Get medical attention if symptoms occur. 1 / 6 Material name: Ethylhexyl Triazone 5136 Version #: 02 Revision date: 11-08-2012 Issue date: 02-28-2008 USP SDS US Most important symptoms/effects, acute and delayed Not available. Indication of immediate medical attention and special treatment needed Treat symptomatically. General information Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposures. In the United States, the national poison control center phone number is 1-800-222-1222. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen if available. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention.

5. Fire-fighting measures Suitable extinguishing media Water spray, dry chemical, carbon dioxide, or foam as appropriate for surrounding fire and materials. Unsuitable extinguishing media None known. Specific hazards arising from the chemical Not applicable. Special protective equipment and precautions for firefighters Wear suitable protective equipment. Fire-fighting equipment/instructions As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing. Specific methods Cool containers exposed to flames with water until well after the fire is out.

6. Accidental release measures Personal precautions, protective equipment and emergency procedures Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of dust from the spilled material. Methods and materials for containment and cleaning up Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid the generation of dusts during clean-up. For waste disposal, see section 13 of the SDS. Wash spill site.

7. Handling and storage Precautions for safe handling As a general rule, when handling USP Reference Standards, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Conditions for safe storage, including any incompatibilities Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

8. Exposure controls/personal protection Biological limit values No biological exposure limits noted for the ingredient(s). Exposure guidelines No exposure standards allocated. Appropriate engineering controls Airborne exposure should be controlled primarily by engineering controls such as general dilution ventilation, local exhaust ventilation, or process enclosure. Local exhaust ventilation is generally preferred to general exhaust because it can control the contaminant at its source, preventing dispersion into the work area. An industrial hygiene survey involving air monitoring may be used to determine the effectiveness of engineering controls. Effectiveness of engineering controls intended for use with highly potent materials should be assessed by use of nontoxic surrogate materials. Local exhaust ventilation such as a laboratory fume hood or other vented enclosure is recommended, particularly for grinding, crushing, weighing, or other dust-generating procedures. Individual protection measures, such as personal protective equipment Eye/face protection Safety glasses with sideshields are recommended. Face shields or goggles may be required if splash potential exists or if corrosive materials are present. Approved eye protection (e.g., bearing the ANSI Z87 or CSA stamp) is preferred. Maintain eyewash facilities in the work area. Skin protection Hand protection Chemically compatible gloves. For handling solutions, ensure that the glove material is protective against the solvent being used. Use handling practices that minimize direct hand contact. Employees who are sensitive to natural rubber (latex) should use nitrile or other synthetic nonlatex gloves. Use of powdered latex gloves should be avoided due to the risk of latex allergy. Other For handling of laboratory scale quantities, a cloth lab coat is recommended. Where significant quantities are handled, work clothing may be necessary to prevent take-home contamination. have an effective respirator program in place (applicable U.S. regulation OSHA 29 CFR 1910.134). Thermal hazards Not available. General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties Appearance White to light yellow powder. Physical state Solid. Form Powder. Odor Faint odor. Odor threshold Not available. pH Not available. Melting point/freezing point 255.2 - 266 °F (124 - 130 °C) Initial boiling point and boiling range Not available. Flash point 584.60 °F (307.00 °C) Cleveland Open Cup Evaporation rate Not available. Flammability (solid, gas) Not applicable. Upper/lower flammability or explosive limits Flammability limit - lower (%) 1.2 % Flammability limit - upper (%) 8.4 % Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available. Vapor pressure Not available. Vapor density Not available. Relative density Not available. Solubility in water Insoluble. Partition coefficient (n-octanol/water) 8.1 Auto-ignition temperature 788 °F (420 °C) Decomposition temperature Not available. Viscosity < 1620 mm²/s at 130 °C (kinematic) Other information Chemical family Benzoate. Molecular formula C₄₈H₆₆N₆O₆ Molecular weight 823.09 Solubility (other) Soluble in many organic solvents; readily soluble in polar cosmetic oils. Specific gravity 1.1 at 25 °C

10. Stability and reactivity Reactivity No reactivity hazards known. Chemical stability Stable at normal conditions. Possibility of hazardous reactions No dangerous reaction known under conditions of normal use. Conditions to avoid Avoid temperatures exceeding the flash point. Incompatible materials None known. Hazardous decomposition products NO_x. Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions.

11. Toxicological information Information on likely routes of exposure Ingestion Based on available data, the classification criteria are not met. Inhalation Due to lack of data the classification is not possible. 3 / 6 Material name: Ethylhexyl Triazone 5136 Version #: 02 Revision date: 11-08-2012 Issue date: 02-28-2008 USP SDS US Skin contact Based on available data, the classification criteria are not met. Eye contact Based on available data, the classification criteria are not met. Symptoms related to the physical, chemical, and toxicological characteristics Not available. Acute toxicity Based on available data, the classification criteria are not met. Product Species Test Results Ethylhexyl Triazone (CAS 88122-99-0) LD₅₀ Rabbit Dermal Acute > 2000 mg/kg LD₅₀ Rat Oral > 5000 mg/kg Skin corrosion/irritation Based on available data, the classification criteria are not met. Serious eye damage/eye irritation Based on available data, the classification criteria are not met. Local effects Irritancy test Result: Non-irritant. Species: Rabbit Organ: Eye Irritancy test Result: Non-irritant. Species: Rabbit Organ: Skin Respiratory sensitization Due to lack of data the classification is not possible. Skin sensitization Based on available data, the classification criteria are not met. Sensitization Maximization test (40% in oil) Result: Non-sensitizing. Species: Guinea pig Sensitization test (10% in oil) Result: Non-sensitizing. Species: Human Sensitization test (3% in cream) Result: Non-sensitizing. Species: Human Germ cell mutagenicity Based on available data, the classification criteria are not met. Mutagenicity Ames assay Result: Negative. In vitro chromosome aberration assay Result: Negative. Micronucleus test Result: Negative. Species: Mouse Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Reproductive toxicity Based on available data, the classification criteria are not met. Reproductivity 1000 mg/kg/day Reproductivity test Result: No increased incidence of birth defects. Species: Rat Specific target organ toxicity - single exposure Due to lack of data the classification is not possible. Specific target organ toxicity - repeated exposure Due to lack of data the classification is not possible. Aspiration hazard Based on available data, the classification criteria are not met.

12. Ecological information Ecotoxicity No ecotoxicity data noted for the ingredient(s). Persistence and degradability No data is available on the degradability of this product. Bioaccumulative potential Not available. 4 / 6 Material name: Ethylhexyl Triazone 5136 Version #: 02 Revision date: 11-08-2012 Issue date: 02-28-2008 USP SDS US Mobility in soil Not available. Other adverse effects Not available.

13. Disposal considerations Disposal instructions This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations. Local disposal regulations Not available. Hazardous waste code Not regulated. Waste from residues / unused products Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information DOT Not regulated as a hazardous material by DOT. IATA Not regulated as a dangerous good. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available.

15. Regulatory information US federal regulations CERCLA/SARA Hazardous Substances - Not applicable. One or more components are not listed on TSCA. Superfund Amendments and Reauthorization Act of 1986 (SARA) Hazard categories Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No SARA 302 Extremely hazardous substance No SARA 311/312 Hazardous chemical No Other federal regulations Safe Drinking Water Act (SDWA) Not regulated. Food and Drug Administration (FDA) Not regulated. US state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. International Inventories Country(s) or region Inventory name On inventory (yes/no)* Australia Australian Inventory of Chemical Substances (AICS) Yes Canada Domestic Substances List (DSL) No Canada Non-Domestic Substances List (NDSL) No China Inventory of Existing Chemical Substances in China (IECSC) Yes Europe European Inventory of Existing Commercial Chemical Yes Substances (EINECS) Europe European List of Notified Chemical Substances (ELINCS) No Japan Inventory of Existing and New Chemical Substances (ENCS) No Korea Existing Chemicals List (ECL) Yes New Zealand New Zealand Inventory Yes Philippines Philippine Inventory of Chemicals and Chemical Substances No (PICCS) United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory No *A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) 5 / 6 Material name: Ethylhexyl Triazone 5136

16. Other information, including date of preparation or last revision Issue date 02-28-2008 Revision date 11-08-2012 Version # 02 Further information Not available. Disclaimer USP Reference Standards are sold for chemical test and assay purposes only, and NOT for human consumption. The information contained herein is applicable solely to the chemical substance when used as a USP Reference Standard and does not necessarily relate to any other use of the substance described, (i.e. at different concentrations, in

drug dosage forms, or in bulk quantities). USP Reference Standards are intended for use by persons having technical skill and at their own discretion and risk. This information has been developed by USP staff from sources considered reliable but has not been independently verified by the USP. Therefore, the USP Convention cannot guarantee the accuracy of the information in these sources nor should the statements contained herein be considered an official expression.

NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE is made with respect to the information contained herein.