

Safety Data Sheet per OSHA HazCom 2012

1 Identification

Product identifier Product name: Ethyl 3,4,5-trihydroxybenzoate

Stock number: A13733 CAS Number: 831-61-8 EC number: 212-608-5 Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development Details of the supplier of the safety data sheet Manufacturer/Supplier: Alfa Aesar Thermo Fisher Scientific Chemicals, Inc. Inerrito Fisher Scheman C. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757 Email: tech @alfa.com www.alfa.com Information Department: Health, Safety and Environmental Department Emergency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

#### 2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) The substance is not classified according to the Globally Harmonized System (GHS). Hazards not otherwise classified No information known.

I abel elements GHS label elements Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable WHMIS classification Not controlled Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)



Health (acute effects) = 1 Flammability = 1

Other hazards Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.

### 3 Composition/information on ingredients

Chemical characterization: Substances CAS# Description: 831-61-8 Ethyl 3,4,5-trihydroxybenzoate Identification number(s): EC number: 212-608-5

#### 4 First-aid measures

## Description of first aid measures

After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor. After swallowing Seek medical treatment. Information for doctor Most important symptoms and effects, both acute and delayed No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dióxide Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

### 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: Pick up mechanically. Prevention of secondary hazards: No special measures required.

(Contd. on page 2)

# Product name: Ethyl 3,4,5-trihydroxybenzoate

Page 2/4 Printing date 11/23/2015 Reviewed on 04/25/2005

(Control of pages 1)

|  | Poforonoo to othor costions  |  | (Contd. of page 1) |  |  |
|--|--|--|--------------------|--|--|
|  | <b>Reference to other sections</b><br>See Section 7 for information on safe ha<br>See Section 8 for information on persona<br>See Section 13 for disposal information.         | ndling<br>al protection equipment.   |                    |  |  |
|  |  |  |                    |  |  |
|  | Handling and storage<br>Handling   |  |                    |  |  |
|  | <b>Precautions for safe handling</b><br>Keep container tightly sealed.<br>Store in cool, dry place in tightly closed o   | containers.<br>explosions and fires: No information known.                       |                    |  |  |
|  | Conditions for safe storage, including any incompatibilities<br>Storage  |  |                    |  |  |
| 1  | Requirements to be met by storeroom  |  |                    |  |  |
|  |  |  |                    |  |  |
|  | 8 Exposure controls/personal protection<br>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.<br>Control parameters              |  |                    |  |  |
|  | Components with limit values that require monitoring at the workplace: Not required.<br>Additional information: No data  |  |                    |  |  |
|  | Exposure controls<br>Personal protective equipment   |  |                    |  |  |
|  | General protective and hygienic measures<br>The usual precautionary measures for handling chemicals should be followed.  |  |                    |  |  |
|  | Keep away from foodstuffs, beverages and feed.<br>Remove all soiled and contaminated clothing immediately.   |  |                    |  |  |
|  | Wash hands before breaks and at the er<br>Maintain an ergonomically appropriate w  | nd of work.<br>orking environment.   |                    |  |  |
|  | Protection of hands:   | pirator when high concentrations are present.                                    |                    |  |  |
|  | Impervious gloves<br>Check protective gloves prior to each us  | e for their proper condition.  |                    |  |  |
|  | The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.<br>Eve protection: Safety glasses |  |                    |  |  |
|  | Body protection: Protective work clothing.   |  |                    |  |  |
| 9 Physical and chemical properties   |  |  |                    |  |  |
| Information on basic physical and chemical properties<br>General Information |  |  |                    |  |  |
|  | Appearance:<br>Form:   | Powder   |                    |  |  |
|  | Odor:<br>Odor threshold:   | Not determined<br>Not determined.  |                    |  |  |
|  | pH-value:  | Not applicable.  |                    |  |  |
|  | Change in condition<br>Melting point/Melting range:  | 149-153 °C (300-307 °F)  |                    |  |  |
|  | Boiling point/Boiling range:<br>Sublimation temperature / start:   | Not determined<br>Not determined   |                    |  |  |
|  | Flash point:<br>Flammability (solid, gaseous)  | Not applicable<br>Not determined.  |                    |  |  |
|  | Ignition temperature:<br>Decomposition temperature:  | Not determined<br>Not determined   |                    |  |  |
|  | Auto igniting:   | Not determined.  |                    |  |  |
|  | Danger of explosion:<br>Explosion limits:  | Product does not present an explosion hazard.                                    |                    |  |  |
|  | Lower:<br>Upper:   | Not determined<br>Not determined   |                    |  |  |
|  | Vapor pressure:<br>Density:  | Not applicable.<br>Not determined  |                    |  |  |
|  | Relative density<br>Vapor density  | Not determined.<br>Not applicable.   |                    |  |  |
|  | Evaporation rate<br>Solubility in / Miscibility with   | Not applicable.  |                    |  |  |
|  | Water:<br>Partition coefficient (n-octanol/water):   | Slightly soluble   |                    |  |  |
|  | Viscosity:   |  |                    |  |  |
|  | dynamic:<br>kinematic:<br>Other information  | Not applicable.<br>Not applicable.<br>No further relevant information available. |                    |  |  |
|  | Other information  |  |                    |  |  |

## 10 Stability and reactivity

Reactivity No information known. Chemical stability Stable under recommended storage conditions. Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Possibility of hazardous reactions No dangerous reactions known Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents Hazardous decomposition products: Carbon monoxide and carbon dioxide

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Product name: Ethyl 3,4,5-trihydroxybenzoate

| Product name: Ethyl 3,4,5-thnydroxyben20ate  | (Cont  | td. of page 2) |  |  |
|--|--|----------------|--|--|
| 11 Toxicological information   |  | (d. 0, page 2) |  |  |
| Information on toxicological effects<br>Acute toxicity: No effects known.<br>LD/LC50 values that are relevant for classification: No data<br>Skin irritation or corrosion: May cause irritation<br>Eye irritation or corrosion: May cause irritation<br>Sensitization: No sensitizing effects known.<br>Germ cell mutagenicity: No effects known.<br>Carcinogenicity: No classification data on carcinogenic properties of<br>Reproductive toxicity: No effects known.<br>Specific target organ system toxicity - repeated exposure: No effects<br>Aspiration hazard: No effects known.<br>Subacute to chronic toxicity:<br>The Registry of Toxic Effects of Chemical Substances (RTECS) report<br>Immunological Including Allergic - hypersensitivity delayed<br>Additional toxicological information: To the best of our knowledge to  | ects known.<br>s known.<br>ts the following effects in laboratory animals: |                |  |  |
| 12 Ecological information<br>Toxicity<br>Aquatic toxicity: No further relevant information available.<br>Persistence and degradability No further relevant information available.<br>Bioaccumulative potential No further relevant information available.<br>Mobility in soil No further relevant information available.<br>Additional ecological information:<br>General notes:<br>Do not allow material to be released to the environment without proper governmental permits.<br>Do not allow material to be released to the environment without proper governmental permits.<br>Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.<br>Avoid transfer into the environment.<br>Results of PBT and vPvB assessment<br>PBT: Not applicable.<br>vPvB: Not applicable.<br>Other adverse effects No further relevant information available.  |  |                |  |  |
| 13 Disposal considerations   |  |                |  |  |
| Waste treatment methods<br>Recommendation Consult state, local or national regulations to ensure proper disposal.<br>Uncleaned packagings:<br>Recommendation: Disposal must be made according to official regulations.   |  |                |  |  |
| <b>14 Transport information</b><br>Not a hazardous material for transportation.  |  |                |  |  |
| UN-Number<br>DOT, IMDG, IATA   | None   |                |  |  |
| UN proper shipping name<br>DOT, IMDG, IATA   | None   |                |  |  |
| Transport hazard class(es)   |  |                |  |  |
| DOT, ADR, IMDG, IATA<br>Class  | None   |                |  |  |
| Packing group<br>DOT, IMDG, IATA   | None   |                |  |  |
| Environmental hazards:   | Not applicable.  |                |  |  |
| Special precautions for user   | Not applicable.  |                |  |  |
| Transport in bulk according to Annex II of MARPOL73/78 and the   |  |                |  |  |
| Transport/Additional information:  | Not dangerous according to the above specifications.                       |                |  |  |
| DOT<br>Marine Pollutant (DOT):   | No   |                |  |  |
| 15 Regulatory information<br>Safety, health and environmental regulations/legislation specific for the substance or mixture<br>GHS label elements Not applicable<br>Hazard pictograms Not applicable<br>Hazard statements Not applicable<br>Hazard statements Not applicable<br>Hazard statements Not applicable<br>Hazard statements Not applicable<br>National regulations<br>All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.<br>All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).<br>SARA Section 31 (specific toxic chemical listings) Substance is not listed.<br>California Proposition 65<br>Prop 65 - Chemicals known to cause cancer Substance is not listed.<br>Prop 65 - Developmental toxicity, female Substance is not listed.<br>Prop 65 - Developmental toxicity, female Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>Prop 65 - Developmental toxicity, the Substance is not listed.<br>The conditions of restrictions and prohibitive regulations<br>Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.<br>The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the<br>market and use must be observed.<br>Substance is n |  |                |  |  |
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# Product name: Ethyl 3,4,5-trihydroxybenzoate

(Contd. of page 3)

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16 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. conformance with this Material Safety Data Sheet, or in con Department issuing SDS: Global Marketing Department Date of preparation / last revision 1/23/2015 / -Abbreviations and acronyms: IMD6: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 60 percent VPWs very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)