

Safety Data Sheet per OSHA HazCom 2012

| | Reviewed on 11/14/20 |
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| dentification | |
| Product identifier | |
| Product name: <u>L-Methionine ethyl ester hydrochloride</u> Stock number: B25055 | |
| CAS Number: 899-36-7 | |
| EC number: | |
| 20-787-6 Relevant identified uses of the substance or mixture and uses advised against. | |
| dentified use: SU24 Scientific research and development Details of the supplier of the safety data sheet | |
| Manufacturer/Supplier: | |
| hermo Fisher Scientific Chemicals, Inc. 80 Bond Street | |
| Vard Hill. MA 01835-8099 | |
| Fel: 800-343-0660 Fax: 800-322-4757 Email: tech@alfa.com | |
| nnan ton com www.alfa.com nformation Department: Health, Safety and Environmental Department | |
| Terring for telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carech | am 24 at (866) 028 0780 |
| | 311 24 al (600) 926-0769. |
| 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). | |
| lazards not otherwise classified No information known. | |
| GHS label elements Not applicable | |
| lazard pictograms Not applicable Signal word Not applicable lazard statements Not applicable | |
| VHMIS classification Not controlled Classification system | |
| HMIS ratings (scale 0-4) | |
| Hazardouš Materials Identification System) EALTH Health (acute effects) = 1 | |
| Flammability = 1 REACTIVITY 1 Physical Hazard = 1 | |
| Other hazards | |
| Results of PBT and vPvB assessment PBT: Not applicable. | |
| /PvB: Not applicable. | |
| Composition/information on ingredients | |
| Chemical characterization: Substances CAS# Description: | |
| 1899-36-7 L-Methionine ethyl ester hydrochloride dentification number(s): E C number: 220-787-6 | |
| EC number: 220-787-6 | |
| 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 mmediately 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. nformation for doctor | |
| Most important symptoms and effects, both acute and delayed No further relevant information available. ndication of any immediate medical attention and special treatment needed No further relevant information available. | |
| | |
| Fire-fighting measures Extinguishing media | |
| Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alco | ohol resistant foam. |
| Special hazards arising from the substance or mixture f this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide | |
| Sulfur oxides (SOX) | |
| Advice for firefighters | |
| Vear self-contained respirator. | |
| Vear sen-contained respirator. Vear fully protective impervious suit. | |
| Accidental release measures | |
| Personal precautions, protective equipment and emergency procedures Vear protective equipment. Keep unprotected persons away. | |
| roai prototivo ogupinent. Teep unprotecteu persons away. | |

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

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| Product name: L-Methionine ethyl es | ster hydrochloride | |
| | | (Contd. of page 1) |
| Conditions for safe storage, including Storage | explosions and fires: No information known. any incompatibilities as and receptacles: No special requirements. mon storage facility: aditions: ed containers. | |
| Control parameters | | |
| Protection of hands: Impervious gloves | anding chemicals should be followed. nd feed. hing immediately. do f work. orking environment. oirator when high concentrations are present. e for their proper condition. depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. minutes) Not determined | |
| 9 Physical and chemical properties | | |
| Information on basic physical and che General Information Appearance: Form: Odor: Odor threshold: | | |
| pH-value: | Not applicable. | |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: | 90-92 °C (194-198 °F) Not determined Not determined | |
| Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting: | Not applicable Not determined Not determined Not determined Not determined | |
| Danger of explosion: Explosion limits: Lower: Upper: Vapor pressure: Density: Relative density Vapor density Evaporation rate | Product does not present an explosion hazard. Not determined Not applicable. Not determined Not determined. Not determined. Not applicable. Not applicable. | |
| Evaporation rate Solubility in / Miscibility with Water: Partition coefficient (n-octanol/water): Viscosity: dynamic: kinematic: Other information | Not determined | |
| L | | (Contd. on page 3) |

| Product name: L-Methionine ethyl ester hydrochloride | | |
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| | | (Contd. of page 2) |
| 10 Stability and reactivity Reactivity No information known. Chemical stability Stable under recommended storage conditions. Thermal decomposition / conditions to be avoided: Decomposition / Possibility of hazardous reactions No dangerous reactions known Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents Water/moisture Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides Sulfur oxides (SOx) Hydrogen chloride (HCI) | will not occur if used and stored according to specifications. | |
| 11 Toxicological information Information on toxicological effects Acute toxicity: No effects known. LD/LC50 values that are relevant for classification: No data Skin irritation or corrosion: May cause irritation Eye irritation or corrosion: May cause irritation Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known. Carcinogenicity: No classification data on carcinogenic properties of th Reproductive toxicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects Specific target organ system toxicity - single exposure: No effects for Aspiration hazard: No effects known. Subacute to chronic toxicity: No effects known. Additional toxicological information: To the best of our knowledge the | cts known. known. | |
| 12 Ecological information Toxicity Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information available. Mobility in soil No further relevant information available. Additional ecological information: General notes: Do not allow material to be released to the environment without proper of Do not allow undiluted product or large quantities to reach ground water Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available. | governmental permits. | |
| 13 Disposal considerations Waste treatment methods Recommendation Consult state, local or national regulations to ensure Uncleaned packagings: Recommendation: Disposal must be made according to official regulation | | |
| 14 Transport information Not a hazardous material for transportation. | | |
| UN-Number DOT, IMDG, IATA | None | |
| UN proper shipping name DOT, IMDG, IATA | None | |
| Transport hazard class(es) DOT, ADR, IMDG, IATA Class | None | |
| Packing group 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 II | | |
| Transport/Additional information: DOT Marine Dellater (DOT): | Not dangerous according to the above specifications. | |
| Marine Pollutant (DOT): | No | |
| 15 Regulatory information Safety, health and environmental regulations/legislation specific for GHS label elements Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable National regulations This product is not listed in the U.S. Environmental Protection Agency T to research and development only. This product must be used by or direct | for the substance or mixture Toxic Substances Control Act Chemical Substance Inventory. Use of this prectly under the supervision of a technically qualified individual as defined by | product is restricted by TSCA. This |

to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes. SARA Section 313 (specific toxic chemical listings) Substance is not listed.

(Contd. on page 4) USA

Product name: L-Methionine ethyl ester hydrochloride

(Contd. of page 3)

USA

California Proposition 65

California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified individuals. Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. 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 market and use must be observed. market and use must be observed.

Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 com Department issuing SDS: Global Marketing Department Date of preparation / last revision 1/23/2015 / -Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Maritime Code for Dangerous Goods DOT: US Department of Transportation EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstrats Service (division of the American Chemical Substances CAS: Chemical Abstrats 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 concentration, 50 percent LD50: Lethal dose, 50 percent LD50: Lethal dose, 50 percent VPW: 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) ARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)