

Safety Data Sheet per OSHA HazCom 2012

(Contd. on page 2)

1 Identification

Product identifier Product name: 15-Hydroxypentadecanoic acid Stock number: B21670, L11241 CAS Number: 4617-33-8 EC number: 225-026-1 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 Flammability = 1 Physical Hazard = 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: 4617-33-8 15-Hydroxypentadecanoic acid Identification number(s): EC number: 225-026-1 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.

Product name: 15-Hydroxypentadecanoic acid

Reference to other sections

See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

Handling Precautions for safe handling Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Information about protection against explosions and fires: No information known.

Conditions for safe storage, including any incompatibilities

Storage Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

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.

Control parameters Components with limit values that require monitoring at the workplace: Not required. Additional information: No data

Exposure controls

Personal protective equipment

The usual protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work.

Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands:

Impervious gloves Impervious gloves Check protective gloves prior to each use 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. Penetration time of glove material (in minutes) Not determined Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties

9 Filysical and chemical properties	
Information on basic physical and che General Information Appearance: Form: Color: Odor: Odor threshold:	emical properties Powder White Not determined Not determined.
pH-value:	Not applicable.
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	84-87 °C (183-189 °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.
Evaporation rate Solubility in / Miscibility with	Product does not present an explosion hazard. Not determined Not determined Not determined Not determined. Not determined. Not applicable. Not determined Not determined. Not determined. Not determined. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

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. **Conditions to avoid** No further relevant information available. **Incompatible materials:** Oxidizing agents

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Toxicological information info		rbon dioxide	(Contd. of page 2
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Toxicity Aduatic toxic: In the function of the	Aspiration hazard: No effects known. Subacute to chronic toxicity: No effects known.		
Waste treatment methods Recommendation Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations. 11 Transport information Not a heardous material for transportation. None 12 Transport information Not a heardous material for transportation. None 13 Transport shipping name Dof, MMOG, NTA None 14 Transport shipping name Dof, MMOG, IATA None 10 Transport hazard class(es) None 10 Transport hazard class(es) Dof, ADR, IMDG, IATA 20 Transport hazard class(es) None 20 Transport during to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport/Additional information: 30 Transport/Additional information: Not dangerous according to the above specifications. 00 Transport had beenements Not applicable State (not information 31 Regulatory information No 32 Regulatory information Stabel elements Not applicable <t< td=""><td>Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information availa Bioaccumulative potential No further relevant information availa Mobility in soil No further relevant information available. Additional ecological information: General notes: Do not allow material to be released to the environment without pr Do not allow undiluted product or large quantities to reach ground Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.</td><td>roper governmental permits.</td><td></td></t<>	Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information availa Bioaccumulative potential No further relevant information availa Mobility in soil No further relevant information available. Additional ecological information: General notes: Do not allow material to be released to the environment without pr Do not allow undiluted product or large quantities to reach ground Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.	roper governmental permits.	
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	Chemical safety assessment: A Chemical Safety Assessment h	as not been carried out.	

Product name: 15-Hydroxypentadecanoic acid

Page 4/4 Printing date 11/23/2015 Reviewed on 08/03/2006

(Contd. of page 3)

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)

USA