

1	Identification
	Product identifier Product name: (2-Hydroxypropyl)-beta-cyclodextrin
	Stock number: H27601
	CAS Number: 128446-35-5
	Izo440-30-30 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. 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 hubinana hours (Mandou Eridou, Som Zam EST), cell (200) 243 0660, After normal hubinana hours, cell Carabham 24 et (266) 038 0780
	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.
	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)
	Hazardouš Materials Identification System) HEALTH I Health (acute effects) = 1
	File Flammability = 1 Reactivity[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:
	128446-35-5 (2-Hydroxypropyl)-beta-cyclodextrin
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 immédiate 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.
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3	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 dioxide
	Advice for firefighters
	Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.
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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.
	Reference to other sections See Section 7 for information on safe handling
	See Section 8 for information on personal protection equipment. (Contd. on page 2)

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See Section 13 for disposal information

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7 Handling and storage					
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.					
Additional information about design of	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 rec Additional information: No data	Components with limit values that require monitoring at the workplace: Not required.				
Exposure controls Personal protective equipment General 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.					
Remove all solied 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					
The protective gloves prior to each use for their proper condition. 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	s				
Information on basic physical and che General Information Appearance:	nemical properties				
`Form: Color: Odor: Odor threshold:	Powder White Not determined Not determined.				
pH-value:	Not applicable.				
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	305 °C (581 °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:	Product does not present an explosion hazard. Not determined Not determined				
Vapor pressure: Density: Relative density Vapor density Europaration rate	Not applicable. Not determined Not determined. Not applicable.				
Evaporation rate Solubility in / Miscibility with Water: Partition coefficient (n-octanol/water): Viscosity:	Not applicable. Soluble J: Not determined.				
Viscosity: dynamic: kinematic: Other information	Not applicable. Not applicable. No further relevant information available.				
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.					

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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11 Toxicological information	(Conta. of page 2)			
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 this material is avail Reproductive toxicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: No effects known. Aspiration hazard: No effects known.				
Subacute to chronic toxicity: No effects known. Additional toxicological information: To the best of our knowledge the acute and chron	ic toxicity of this substance is not fully known.			
12 Ecological information Toxicity Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information available. Bioaccumulative potential 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 governmental perm Do not allow undiluted product or large quantities to reach ground water, water course or s	nits. Sewage system			
Avoid transfer into the environment.				
Results of PBT and vPvB assessment PBT: Not applicable. vPuP: Not applicable				
vPvB: Not applicable. Other adverse effects No further relevant information available.				
13 Disposal considerations 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. Recommended cleansing agent: Water, if necessary with cleansing agents.				
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 None				
Packing group DOT, IMDG, IATA None				
Environmental hazards: Not apple Special precautions for user Not apple				
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not appli				
	perous according to the above specifications.			
DOT Marine Pollutant (DOT): No				
15 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture 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 Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted 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. All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL). SARA Section 313 (Specific toxic chemical listings) 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, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity according to Article 67 and Annex XVII of the 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. Substance is not listed. Annex XVI of the REACH Regulations (requiring Authorisation for use) Substance is not listed. Chemical safety assessment: A Chemical Safety Assessment has not been				
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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 com Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / -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 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 dose, 60 percent LD50: Lethal dose, 60 percent VPUB: 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