

## Safety Data Sheet per OSHA HazCom 2012

	Kevie	wed on 01/22/2016
1	1 Identification	
	Product identifier Product name: Glucagon-Like Peptide-2, human	
	Stock number: J66884	
	CAS Number: 99120-49-7	
	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:	
	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	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	
	Signal word Not applicable Hazard statements Not applicable	
	WHMIS classification Not controlled	
	Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)	
	<b>HEALTH 1</b> Health (acute effects) = 1	
	PRE     IFiammability = 1       REACTIVITY     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: 99120-49-7 His-Ala-Asp-Gly-Ser-Phe-Ser-Asp-Glu-Met-Asn-Thr-Ile-Leu-	
	Asp-Asn-Leu-Ala-Ala-Arg-Asp-Phe-Ile-Asn-Trp-Leu-Ile-Gin- Thr-Lys-Ile-Thr-Asp-Arg	
_	1 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	
	Carbon monoxide and carbon dioxide Sulfur oxides (SOx)	
	Nitrogen oxides (NOx) Advice for firefighters	
	Protective equipment: Wear self-contained respirator.	
	Wear fully protective impervious suit.	
0	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 product to reach sewage system or any water course. Methods and material for containment and cleaning up: Pick up mechanically.	
	Methods and material for containment and cleaning up: Pick up mechanically. Prevention of secondary hazards: No special measures required.	(Control and a second
		(Contd. on page 2)

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<b>Reference to other sections</b> See Section 7 for information on safe ha See Section 8 for information on person See Section 13 for disposal information.	(Contd. of page 1) ndling al protection equipment.			
7 Handling Handling Precautions for safe handling Keep container tightly sealed. 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: Store in freezer (-20 ℃). Information about storage in one common storage facility: Protect from heat. Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. 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: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. Additional information: No data				
Personal protective equipment General protective and hygienic meas The usual precautionary measures for h Keep away from foodstuffs, beverages a Remove all soiled and contaminated clo Wash hands before breaks and at the e Maintain an ergonomically appropriate w Breathing equipment: Use suitable res Recommended filter device for short Use a respirator with type N95 (USA) or purifying respirators are appropriate. Of Protection of hands:	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. 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. Recommended filter device for short term use: Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air- purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards. Protection of hands:			
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. <b>Eye protection:</b> Safety glasses <b>Body protection:</b> Protective work clothing.				
9 Physical and chemical properties				
Information on basic physical and ch General Information Appearance:				
Form: Odor: Odor threshold:	Powder Not determined Not determined.			
pH-value:	Not applicable.			
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not determined Not determined Not determined Not determined Not determined Not determined Not determined.			
Danger of explosion: Explosion limits:	Not determined.			
Lower: Upper:	Not determined Not determined			
Vapor pressure:	Not applicable.			
Density: Relative density	Not determined Not determined.			
Vapor density Evaporation rate	Not applicable. Not applicable.			
Solubility in / Miscibility with Water:	Partly soluble			
Partition coefficient (n-octanol/water) Viscosity:	Not determined.			
dynamic: kinematic:	Not applicable. Not applicable.			
Other information	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 Reacts with strong oxidizing agents Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents Heat

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Product name: Glucagon-Like Peptide-2, human

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Hazardous decomposition products: Carbon monoxide and carbon dioxide Sulfur oxide (SOX)	(Contd. of page 2)			
Sulfur oxides (SOx) Nitrogen oxides				
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 effects known. Carcinogenicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Subacute to chronic toxicity: No effects known. Subacute to chronic toxicity: No effects known. Additional toxicological information: To the best of our knowledge the acute and chronic toxicit Carcinogenic categories OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.				
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 undiluted product or large quantities to reach ground water, water course or sewage system. 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.				
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.				
14 Transport information				
UN-Number DOT, ADN, IMDG, IATA Not applicable				
UN proper shipping name DOT, ADN, IMDG, IATA Not applicable				
Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class Not applicable				
Packing group DOT, IMDG, IATA Not applicable				
Environmental hazards: Not applicable.				
Special precautions for user Not applicable.				
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.				
Transport/Additional information: DOT				
Marine Pollutant (DOT): No				
UN "Model Regulation": -				
15 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements Not applicable Hazard pictograms Not applicable Mational 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. This product is not listed on the Canadian Domestic Substances List (DSL) or 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, reale Substance is not listed. Prop 65 - Developmental toxicity, reale Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, reale 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 female Substance is not listed. Prop 65 - Developme				
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## Product name: Glucagon-Like Peptide-2, human

(Contd. of page 3) 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 combination with any other product or process, is the responsibility of the use Department issuing SDS: Global Marketing Department Date of preparation / last revision 01/25/2016 / -Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) 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) LDS0: Lethal concentration, 50 percent VPUE: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

USA