

## Safety Data Sheet per OSHA HazCom 2012

	wed on 07/12/2013
1 Identification Product identifier Product name: <u>Apamin</u> Stock number: J60961	
CAS Number: 24345-16-2 EC number: 246-182-7 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: 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.	
Label 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 I   FIRE II   FIRE II   REACTIVITY I   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: 24345-16-2 Apamin Identification number(s): EC number: 246-182-7	
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 dioxide Sulfur oxides (SOx)	
Nitrogen oxides (NOx) 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 product to reach sewage system or any water course.	(Contd. on page 2)
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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. See Section 13 for disposal information.				
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 prote	ection			
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				
Exposure controls Personal protective equipment General protective and hygienic measures				
The usual precautionary measures for h Keep away from foodstuffs, beverages a	nandling chemicals should be followed. and feed.			
The usual precautionary measures for have Keep away from foodstuffs, beverages Remove all soiled and contaminated clo Wash hands before breaks and at the e	nthing immediately. Ind of work			
Maintain an ergonomically appropriate v	working environment. spirator when high concentrations are present.			
Protection of hands:				
Impervious gloves Check protective gloves prior to each us	se for their proper condition. v depends on the material, but also on quality.  Quality will vary from manufacturer to manufacturer.			
The selection of suitable gloves not only Penetration time of glove material (in	y depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. minutes) Not determined			
Eye protection: Safety glasses Body protection: Protective work cloth	ing			
9 Physical and chemical properties				
Information on basic physical and ch General Information	emical properties			
Appearance: Form:	Powder			
Color: Odor:	White to pale brown Not determined			
Odor threshold:	Not determined.			
pH-value:	Not applicable.			
Change in condition Melting point/Melting range:	Not determined			
Melting point/Melting range: Boiling point/Boiling range: Sublimation temporature / start:	Not determined Not determined			
Sublimation temperature / start: Flammability (solid, gaseous)	Not determined.			
Ignition temperature: Decomposition temperature:	Not determined Not determined			
Auto igniting:	Not determined.			
Danger of explosion: Explosion limits:	Not determined.			
Lower:	Not determined			
Upper: Vapor pressure:	Not determined Not applicable.			
Density:	Not determined			
Relative density Vapor density	Not determined. Not applicable.			
Evaporation rate Solubility in / Miscibility with	Not applicable.			
Water: Not determined				
Partition coefficient (n-octanol/water): Not determined. Viscosity:				
dynamic: kinematic:	Not applicable. Not applicable.			
Other information	Not applicable. No further relevant information available.			
10 Stability and reactivity				
10 Stability and reactivity Reactivity No information known.				
Chemical stability Stable under recom	mended storage conditions. <b>to be avoided:</b> Decomposition will not occur if used and stored according to specifications.			
Thermal decomposition / conditions a Possibility of hazardous reactions Re	to be avoided: Decomposition will not occur it used and stored according to specifications.			

Oxidizing agents Heat

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Product name: Apamin			
Hazardous decomposition products: Carbon monoxide and carbon dioxide Sulfur oxides (SOx) Nitrogen oxides	(Contd. of page 2)		
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11 Toxicological information Information on toxicological effects Acute toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance. LD/LC50 values that are relevant for classification: No data Skin irritation or corrosion: May cause irritation Eye irritation or corrosion: May cause irritation Germ cell mutagenicity: No effects known. Germ cell mutagenicity: No effects known. Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. Reproductive toxicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Aspiration hazard: No effects known. Subacute to chronic toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance. Additional toxicological information: To the best of our knowledge the acute and chronic 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 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.			
40 Discond considerations			
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			
DO1, IMDG, IATA Environmental hazards:	Not applicable		
Special precautions for user	Not applicable.		
Transport in bulk according to Annex II of MARPOL73/78 and the IBC (			
Transport Additional information:			
DOT Marine Bellutent (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 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. 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. 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 Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitations 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. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. (Contd. on page 4,

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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 11/24/2015 / - 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 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 VPVB: 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)

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