



1 Identification
Product identifier
Product name: Nepsilon-4-[4-(Dimethylamino)phenylazo]benzoyl-Nalpha-Fmoc-L-lysine
Stock number: H63214 CAS Number: 146998-27-8
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
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 I   Flammability = 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: 146998-27-8 Nepsilon-4-[4-(Dimethylamino)phenylazo]benzoyl-Nalpha-Fmoc-
L-lysine
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 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. Methods and material for containment and cleaning up: Pick up mechanically.
Prevention of secondary hazards: No special measures required. Reference to other sections

Reference to other sections See Section 7 for information on safe handling

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See Section 8 for information on personal protection equipment.

	See Section 8 for information on personal protection equipment. See Section 13 for disposal information.				
7 Handling and storage					
Handling Precautions for safe handling Keep container tightly sealed. Information about protection against explosions and fires: No information known.					
Conditions for safe storage, including	g any incompatibilities				
Storage Requirements to be met by storeroom	ns and receptacles: Refrigerate				
Information about storage in one con Protect from heat. Store away from oxidizing agents.	inton storage racinty.				
Further information about storage co Keep container tightly sealed.	nditions:				
Refrigerate Specific end use(s) No further relevant	t information available				
8 Exposure controls/personal prote					
Additional information about design	of technical systems:				
Properly operating chemical fume hood Control parameters	designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.				
Components with limit values that re-	<b>quire monitoring at the workplace:</b> ant 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 handling chemicals should be followed.					
Remove all soiled and contaminated clo	Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately.				
Wash hands before breaks and at the e Maintain an ergonomically appropriate v	nd of work. vorking environment. spirator when high concentrations are present.				
Recommended filter device for short	term use:				
Use a respirator with type N95 (USA) or purifying respirators are appropriate. Or	r PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air- nly use equipment tested and approved under appropriate government standards.				
Protection of hands: Impervious gloves					
Check protective gloves prior to each us 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 Eye protection: Safety glasses					
Body protection: Protective work cloth	·				
9 Physical and chemical properties Information on basic physical and ch					
General Information Appearance:					
Form: Color:	Crystalline powder Red				
Odor: Odor threshold:	Not determined Not determined.				
pH-value:	Not applicable.				
Change in condition Melting point/Melting range:	Not determined				
Boiling point/Boiling range: Sublimation temperature / start:	Not determined Not determined				
Flammability (solid, gaseous)	Not determined. Not determined				
Ignition temperature: Decomposition temperature: Auto igniting:	Not determined Not determined				
Danger of explosion:	Not determined.				
Explosion limits: Lower:	Not determined				
Upper: Vapor pressure:	Not determined Not applicable.				
Density: Relative density	Not determined Not determined.				
Vapor density Evaporation rate	Not applicable. Not applicable.				
Solubility in / Miscibility with Water:	Not determined				
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. Possibility of hazardous reactions Reacts with strong oxidizing agents Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents

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llast		(Contd. of page 2)			
Heat Hazardous decomposition products:					
Carbon monoxide and carbon dioxide Nitrogen oxides					
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11 Toxicological information					
Information on toxicological effects Acute toxicity: No effects known.					
I D/I C50 values that are relevant for classification. No data					
Skin irritation or corrosion: May cause irritation Eve irritation or corrosion: May cause irritation					
Sensitization: No sensitizing effects known.	of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.				
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.				
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.					
Aspiration hazard: No effects known.					
Additional toxicological information: To the best of our knowledge	ge the acute and chronic toxicity of this substance is not fully known.				
12 Ecological information					
Toxicity					
Aquatic toxicity: No further relevant information available					
Bioaccumulative potential No further relevant information available	liadie. le.				
Persistence and degradability No further relevant information ava 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 w Avoid transfer into the environment.	vater, water course or sewage system.				
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 reg	gulations.				
14 Transport information					
UN-Number	Natarritante				
DOT, ADN, IMDG, IATA UN proper shipping name	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 Transport/Additional information:					
DOT					
Marine Pollutant (DOT):	No				
UN "Model Regulation":					
15 Regulatory information					
Safety, health and environmental regulations/legislation specif	ic 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 Agen	ncy Toxic Substances Control Act Chemical Substance Inventory. Use of this pro	oduct is restricted			
to research and development only. This product must be used by or directly under the supervision of a technically qualified individúal as defined by 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	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). SAPA Section 313 (specific twic chemical listings) Substances is not listed				
SARA Section 313 (specific toxic chemical listings) Substance i California Proposition 65	is not listea.				
Prop 65 - Chemicals known to cause cancer 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, female 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. 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 accoryms: 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) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 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) MTP: National Toxicology Program (USA) MARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

USA