

## Safety Data Sheet per OSHA HazCom 2012

Reviewed on 05/10	6/2013
1 Identification	
Product identifier	
Product name: <u>Bafilomycin A1</u> Stock number: J61835	
CAS Number: 88899-55-2	
88899-33-2 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)	
GHS07	
Skin Irrit. 2 H315 Causes skin irritation.	
Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation.	
STOT SE 3 H335 May cause respiratory irritation. Hazards not otherwise classified No information known.	
Label elements GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms	
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GHS07	
Signal word Warning Hazard statements	
H315 Causes skin irritation. H319 Causes serious eye irritation.	
H335 May cause respiratory irritation. Precautionary statements	
P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P205+P251+P229 IE IN EVESS Proceeding and a continue ringing	
P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P405 Store locked up.	
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.	
WHMIS classification D2B - Toxic material causing other toxic effects	
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Classification system	
HMIS ratings (scale 0-4) (Hazardous Materials Identification System)	
HEALTH       Image: Constraint of the second s	
Other hazards	
Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.	
3 Composition/information on ingredients	
Chemical characterization: Substances	
CAS# Description: 88899-55-2 Bafilomycin A1	
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 After skin contact Immediately wash with water and soap and rinse thoroughly.	
After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.	
After swallowing Seek medical treatment. (Contd. on	page 21
	- USA -

## Product name: Bafilomycin A1

(Contd. of page 1)

Information for doctor		(Contd. of page 1)		
Most important symptoms and effects Indication of any immediate medical a	s, both acute and delayed No further relevant information available. attention and special treatment needed No further relevant information available.			
5 Fire-fighting measures Extinguishing media Suitable extinguishing agents Carbon Special hazards arising from the subs If this product is involved in a fire, the fol Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen chloride (HCl) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.	dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. stance or mixture llowing can be released:			
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: Ensure adequate ventilation. Prevention of secondary hazards: No special measures required. Reference to other sections See Section 7 for information on safe handling See Section 13 for disposal information.				
7 Handling and storage Handling Precautions for safe handling Keep container tightly sealed. Ensure good ventilation at the workplace. 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 °C). 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 Additional information about design of	of technical systems:			
Properly operating chemical fume hood designed for fiazardous chemicals and having an average face velocity of at least 100 feet per minute. <b>Control parameters</b> <b>Components with limit values that require monitoring at the workplace:</b> The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. <b>Additional information:</b> No data				
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.         Wash hands before breaks and at the end of work.         Avoid contact with the eyes and skin.         Maintain an ergonomically appropriate working environment.         Breathing equipment: Use suitable respirator when high concentrations are present.         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.         Penetration time of glove material (in minutes) Not determined         Eye protection: Safety glasses         Body protection: Protective work clothing.				
9 Physical and chemical properties				
Information on basic physical and che General Information Appearance: Form: Color: Odor: Odor threshold:				
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 Not determined.	(Contd. on page 3)		

(Contd. on page 3)

## Product name: Bafilomycin A1

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Danger of explosion: Explosion limits:	Not determined.
Lower: Upper:	Not determined Not determined
Vapor pressure: Density:	Not applicable. Not determined
Relative density	Not determined.
Vapor density Evaporation rate	Not applicable. Not applicable.
Solubility in / Miscibility with Water:	Not determined
Partition coefficient (n-octanol/water).	
Viscosity: dynamic:	Not applicable.
kinematic: Other information	Not applicable. No further relevant information available.
Possibility of hazardous reactions Re Conditions to avoid No further relevant Incompatible materials: Oxidizing agents Heat Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides	nended storage conditions. <b>o be avoided:</b> Decomposition will not occur if used and stored according to specifications. acts with strong oxidizing agents information available.
Hydrögen chloride (HCl)	
LD/LC50 values that are relevant for c Skin irritation or corrosion: Causes sk Eye irritation or corrosion: Causes se Sensitization: No sensitizing effects kno Germ cell mutagenicity: No effects kno Carcinogenicity: No effects know Specific target organ system toxicity Specific target organ system toxicity Aspiration hazard: No effects known. Subacute to chronic toxicity: The Reg	in irritation. rious eye irritation. wm. own carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. n.
	ier relevant information available. elevant information available. mation available. he environment without proper governmental permits. uuantities to reach ground water, water course or sewage system.
13 Disposal considerations	
Waste treatment methods Recommendation Consult state, local o Uncleaned packagings: Recommendation: Disposal must be m	r national regulations to ensure proper disposal. ade according to official regulations.
14 Transport information	
UN-Number DOT, ADN, IMDG, IATA	Not applicable
UN proper shipping name	
DOT, ADN, IMDG, IATA Transport hazard class(es)	Not applicable
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. (Contd. on page 4
	Conta. on page 4

Safety Data Sheet per OSHA HazCom 2012	Page 4/4 Printing date 11/24/2015 Reviewed on 05/16/2013
Product name: Bafilomycin A1	
	(Contd. of page 3)
Transport/Additional information:	
DOT Marine Pollutant (DOT):	No
UN "Model Regulation":	
15 Regulatory information Safety, health and environmental regulations/le GHS label elements The product is classified and Hazard pictograms	egislation specific for the substance or mixture labeled in accordance with 29 CFR 1910 (OSHA HCS)
GHS07	
P305+P351+P338 IF IN EYES: Rinse cautiously w P304+P340 IF INHALED: Remove person to P405 Store locked up. P501 Dispose of contents/container in National regulations This product is not listed in the U.S. Environmental to research and development only. This product must product must not be used for commercial purposes This product is not listed on the Canadian Domestii SARA Section 313 (specific toxic chemical listif California Proposition 65 Prop 65 - Chemicals known to cause cancer Sul Prop 65 - Developmental toxicity, female Substance Information about limitation of use: For use only Other regulations, limitations and prohibitive re Substance of Very High Concern (SVHC) accord	<ul> <li>vive clothing/eyé protection/face protection.</li> <li>vith water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>o fresh air and keep comfortable for breathing.</li> <li>in accordance with local/regional/national/international regulations.</li> <li>I Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted ust be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This s or in formulations for commercial purposes.</li> <li>ic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).</li> <li>ngs) Substance is not listed.</li> <li>iot listed.</li> <li< td=""></li<></ul>
<b>16 Other information</b> Employers should use this information only as a su information to ensure proper use and protect the he conformance with this Material Safety Data Sheet,	upplement to other information gathered by them, and should make independent judgement of suitability of this ealth and safety of employees. This information is furnished without warranty, and any use of the product not in or in combination with any other product or process, is the responsibility of the user.
Department issuing SDS: Global Marketing Depa Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereu DOT: US Department of Transportation CAS: Chemical Abstracts Service (division of the American Chemica HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Cana LCSO: Lethal concentration, 50 percent USD): Lethal dose, 50 percent vPvB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienist. OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	uses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) cal Society) ada)