



Page 1/5 Printing date 09/15/2017 Revision date 09/14/2017 Version 1

	Version 1
1 Identification Product identifier	
Product name: Amphotericin B, Streptomyces nodosus	
<b>Stock number:</b> J61491 <b>CAS Number:</b> 1397-89-3	
<b>EC</b> number: 215-742-2	
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. Hazards not otherwise classified No information known.	
Label elements GHS label elements Hazard pictograms	
GHS07	
Signal word Warning Hazard statements       H315 Causes skin irritation.       H319 Causes serious eye irritation.       H315 May cause respiratory irritation.       H325 May cause respiratory irritation.       Precautionary statements       P261     Avoid breathing dust/fume/gas/mist/vapors/spray       P280     Wear protective gloves / eye protection / face protection.       P305+P331 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	
Classification system HMIS ratings (scale 0-4)	
(Hazardous Materials Identification System)	
HEALTH I Health (acute effects) = 1 FIRE I Flammability = 1 REACTIVITI 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: 1397-89-3 Amphotericin B Concentration: ≤100% Identification number(s): EC number: 215-742-2	
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.	(Contd. on page 2)
	USA

(Contd. of page 1)

## Product name: Amphotericin B, Streptomyces nodosus

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 Causes skin irritation. Causes serious eye irritation. 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: Or how monovide and earthen dioxiden discussion. 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. 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: 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 7 for information on personal protection equipment. See Section 13 for disposal information. Protective Action Criteria for Chemicals PAC-1: Substance is not listed PAC-1: Substance is not listed. PAC-2: Substance is not listed. PAC-3: Substance is not listed.

## 7 Handling and storage

Handling Precautions for safe handling Handle under dry protective gas. 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: Refrigerate Information about storage in one common storage facility: Store in the dark. Protect from heat. Protect from heat. Store away from water/moisture. Store away from oxidizing agents. **Further information about storage conditions:** Store under dry inert gas. This product is moisture sensitive. Keep container tightly sealed. Protect from humdity and water

Protect from humidity and water. Protect from exposure to light. Refrigerate 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

## 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 eves and etime.

Avoid contact with the eyes and skin. 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 multi-purpose combination (US) or type ABEK (EN 14387) 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 such as NIOSH (USA) or CEN (FL) CEN (EU). 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. **Material of gloves** Nitrile rubber, NBR

Saf	et	y D	ata	a S	heet
acc.	to	OSF	IA H	ICS	

# Product name: Amphotericin B, Streptomyces nodosus

(Contd	of page

Product name: Amphotericin B, Stre	eptomyces nodosus			
Penetration time of glove material (in	minutes) 480	(Contd. of page 2)		
Glove thickness: 0.11 mm Eye protection: Safety glasses with side shields / NIOSH (US) or EN 166(EU) Body protection: Protective work clothing.				
9 Physical and chemical properties	s			
Information on basic physical and ch General Information Appearance: Form:	Pemical properties			
Odor: Odor threshold:	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: Lower: Upper: Vapor pressure: Density: Relative density Vapor density Evaporation rate Solubility in / Miscibility with Water:	Not determined Not determined Not applicable. Not applicable. Not determined Not determined. Not applicable. Not applicable. Not determined			
Partition coefficient (n-octanol/water) Viscosity: dynamic: kinematic: Other information				
10 Stability and reactivity Reactivity No information known. Chemical stability Stable under recomm Thermal decomposition / conditions to Possibility of hazardous reactions Re Conditions to avoid No further relevant Incompatible materials: Oxidizing agents Heat Water/moisture Light Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides	<b>to be avoided:</b> Decomposition will not occur if used and stored according to specifications. eacts with strong oxidizing agents t information available.			
	iffects of Chemical Substances (RTECS) contains acute toxicity data for this substance.			
LD/LC50 values that are relevant for classification:       Oral [LD50] >5000 mg/kg (rat)       Skin irritation or corrosion: May cause irritation       Eye irritation or corrosion: May cause irritation       Sensitization: No sensitizing effects known.       Germ cell mutagenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.       Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.       Reproductive toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.       Specific target organ system toxicity - repeated exposure: No effects known.       Specific target organ system toxicity - single exposure: May cause respiratory irritation.       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.       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 inf Persistence and degradability No furth Bioaccumulative potential No further r Mobility in soil No further relevant infor Additional ecological information: General notes: Do not allow undiluted product or large of Avoid transfer into the environment. Results of PBT and vPvB assessmen PBT: Not applicable.	her relevant information available. relevant information available. rmation available. quantities to reach ground water, water course or sewage system.			
<b>vPvB:</b> Not applicable.		(Contd. on page 4) USA —		

(Contd. of page 3)

# Product name: Amphotericin B, Streptomyces nodosus

Other adverse effects No further relevant information available.

#### 13 Disposal considerations Wasto troatmont mothods

Recommendation: Disposal must be made according to official regulations.       14 Transport information       UN-Number DOT, ADN, IMDG, IATA       DOT, ADN, IMDG, IATA     Not applicable       UN proper shipping name DOT, ADR, ADN, IMDG, IATA     Not applicable       Transport hazard class(es)     DOT, ADR, ADN, IMDG, IATA       DOT, ADR, ADN, IMDG, IATA     Not applicable       Packing group DOT, ADR, 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       Mot applicable     Not applicable.	waste treatment methods Recommendation Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings:			
UN-Number     Not applicable       UN proper shipping name     Not applicable       DOT, ADR, ADN, IMDG, IATA     Not applicable       Transport hazard class(es)     Not applicable       DOT, ADR, ADN, IMDG, IATA     Not applicable       Packing group     Not applicable       DOT, ADR, IMDG, IATA     Not applicable       Packing group     Not applicable       DOT, ADR, IMDG, IATA     Not applicable       Packing group     Not applicable       DOT, ADR, IMDG, IATA     Not applicable       Packing group     Not applicable       DOT, ADR, IMDG, IATA     Not applicable       Packing group     Not applicable       DOT, ADR, IMDG, IATA     Not applicable       Fransport in busk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.     Transport/Additional information:       DOT     Not     Not applicable.       Marine Pollutant (DOT):     No	<b>Recommendation:</b> Disposal must be made according to official regula	Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.		
DOT, ADN, IMDG, IATA     Not applicable       UN proper shipping name DOT, ADR, ADN, IMDG, IATA     Not applicable       Transport hazard class(es)     Not applicable       DOT, ADR, ADN, IMDG, IATA     Not applicable       Packing group DOT, ADR, IMDG, IATA     Not applicable       Fransport in black according to Annex II of MARPOL73/78 and the IBC Code Not applicable.     Transport/Additional information:       DOT Marine Pollutant (DOT):     No	14 Transport information			
Transport hazard class(es)       DOT, ADR, ADN, IMDG, IATA       Class     Not applicable       Packing group     Not applicable       DOT, ADR, 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		Not applicable		
DOT, ADR, ADN, IMDG, IATA     Not applicable       Packing group     Not applicable       DOT, ADR, 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 proper shipping name DOT, ADR, ADN, IMDG, IATA	Not applicable		
Class     Not applicable       Packing group     Not applicable       DOT, ADR, 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	Transport hazard class(es)			
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     No       Marine Pollutant (DOT):     No		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     Not       Marine Pollutant (DOT):     Not	Packing group DOT, ADR, IMDG, IATA	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):	Environmental hazards:	Not applicable.		
Transport/Additional information: DOT Marine Pollutant (DOT): No	Special precautions for user	Not applicable.		
DOT Marine Pollutant (DOT): No	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.			
Marine Pollutant (DOT): No	Transport/Additional information:			
UN "Model Regulation": Not applicable		No		
	UN "Model Regulation":	Not applicable		

## 15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms



### Signal word Warning

Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Precautionary statements

- Precautionary statements

   P261
   Avoid breathing dust/fume/gas/mist/vapors/spray

   P280
   Wear protective gloves / 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.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

 Dispose of contents/container in accordance with local/regional/national/international regulations.
 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 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) Substances is not listed.
 California Proposition 65
 Prop 65 - Developmental toxicity, female Substance is not listed.
 Prop 65 - Developmental toxicity, female Substance is not listed.
 Prop 65 - Developmental toxicity, male Substance is not listed.
 Prop 65 - Developmental toxicity, male Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity, female Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity, and Substance is not listed.
 Prop 65 - Developmental toxicity and Substance is not listed.
 Prop 65 - Developmental toxicity and Substance is not listed.
 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 Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing SDS: Global Marketing Department Date of preparation/Revision: Print date, revision date and version number are in the header of each page. Abbreviations and acronyms: ADR: Accord europeens un tetransport does marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Martime Code for Dangerous Goods DOT: US Department of Transport Association 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 DBS: Persistent, Bioaccumulative and Toxic

(Contd. on page 5)



## Product name: Amphotericin B, Streptomyces nodosus

SVHC: Substances of Very High Concern vPvB: 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) Skin Intt. 2: Skin corrosion/Initiation – Category 2 Eve Init: 2A: Serious eye damage/eye irritation – Category 2A STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

(Contd. of page 4)

USA