

MATERIAL SAFETY DATA SHEET

Revision date: 03/25/2011

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name BioEase 2305

Contact Manufacturer Novozymes Biologicals Inc.
5400 Corporate Circle
Salem, VA, USA 24153

Information Telephone Number 1-540-389-9361

Emergency Telephone Number 1-800-424-9300 (Chemtrec) 24 hours every day

Health Hazard	1
Fire Hazard	0
Reactivity	0

2. HAZARDS IDENTIFICATION

CAUTION		
Emergency Overview		
Mild eye irritation		
Appearance Opaque	Physical State Liquid	Odor Slight fermentation odor

Potential Health Effects

Principle Routes of Exposure Eye contact, Skin contact, Inhalation, Ingestion

Acute Effects

Eyes	May cause slight irritation
Skin	Substance may cause slight skin irritation
Inhalation	May cause irritation of respiratory tract
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea

Chronic Effects

Chronic Toxicity No information available

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available

Potential Environmental Effects There is no known ecological information for this product See Section 12 for additional Ecological information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Chemical Name	CAS-No	Weight %
Water	7732-18-5	<80%
Dodecyl benzene sulfonic acid	68584-22-5	1-5%
Viable Bacteria Cultures	Not Applicable	< 1%
EDTA	64-02-8	<0.5%

Ingredients not listed are either non-hazardous or under reportable concentrations

4. FIRST AID MEASURES

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
Skin Contact	Wash off immediately with soap and plenty of water
Inhalation	Move to fresh air
Ingestion	Clean mouth with water and afterwards drink plenty of water
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties	Slightly flammable according to HMIS criteria
Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media	None
Hazardous Combustion Products	None
Specific Hazards Arising from the Chemical	May cause allergic respiratory reaction.
Protective Equipment and Precautions for Firefighters	Self-contained breathing apparatus and standard turn-out apparel

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	For personal protection see section 8
Environmental Precautions	Spilled preparation should be removed immediately to avoid formation of dust from dried preparation. Take up by mechanical means preferably by a vacuum cleaner equipped with a high efficiency filter. Flush remainder carefully with plenty of water. Avoid splashing and high pressure washing (avoid formation of aerosols). Ensure sufficient ventilation. Wash contaminated clothing.
Methods for cleaning up	Avoid formation of dust and aerosols Spilled preparation should be removed immediately to avoid formation of dust from dried preparation. Take up by mechanical means preferably by a vacuum cleaner equipped with a HEPA (High Efficiency Particulate Air) filter. Flush remainder carefully with plenty of water. Avoid splashing, high pressure washing or compressed air cleaning to avoid formation of aerosols. Ensure sufficient ventilation. Wash contaminated clothing.
For personal protection see section 8	

7. HANDLING AND STORAGE

Handling	Avoid formation of dust and aerosols Ensure adequate ventilation
The use of gloves is recommended to reduce exposure to the preparation	
General Precautions	The Substance should be handled under conditions of good industrial hygiene and in conformity with any local regulations in order to avoid unnecessary exposure..
Storage	Keep tightly closed in a dry and cool place..
Temperature	Keep in a dry, cool and well-ventilated place.
Storage Conditions	In unbroken packaging - dry and protect from the sun. The product has been formulated for optimal stability. Extended storage or adverse conditions such as higher temperatures or higher humidity may lead to a higher dosage requirement.
Conditions To Avoid	Avoid Temperatures above 45 C to preserve biological stability. Strong Acids or alkali compounds may inactivate biological cultures. Avoid freezing temperatures. Avoid strong oxidizing agents.
Incompatible Materials	Strong acids or alkali compounds may inactivate biological cultures

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Engineering Controls	Ensure adequate ventilation, especially in confined areas Maintain good conditions of industrial hygiene. Some processes may require enclosures, local exhaust ventilation, or other engineering controls to control airborne levels. Additional handling and healthy/safety information is available upon request
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Personal Protective Equipment

Respiratory Protection	In case of insufficient ventilation wear suitable respiratory equipment that meets HEPA/P100 specifications
Eye Protection	Safety glasses with side-shields
Skin Protection	Long sleeved clothing
Hand Protection	Protective gloves

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practices

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Opaque
Physical State	Liquid
Odor	Slight fermentation odor
pH	8.5-9.5
Boiling Point/Range	No information available
Melting Point/Range	No information available
Flash Point	No information available
Flammability (solid, gas)	No information available
Explosive Properties	No information available
Oxidizing Properties	No information available
Vapor Pressure	No information available
Relative density	No data available
Solubility	No information available
Partition Coefficient (n-octanol/water)	No information available

The physical data presented above are typical values and should not be construed as a specification

10. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions
Conditions to Avoid	Extremes of temperature and direct sunlight Stable under normal conditions Excessive temperature variations below 32F or above 155F
Materials to avoid	Strong acids or alkali compounds, as well as oxidizing agents may inactivate biological cultures.
Hazardous Decomposition Products	No information available.
Possibility of Hazardous Reactions	No information available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Ingestion, LD50 Rat Oral (mg/kg):	Not Determined
Inhalation, LC50 Rat inhalation (mg/l/4hr)	Not Determined
Skin, LD50 Rat Dermal (mg/kg)	Not Determined
Eye Irritation	Not Determined

Chronic Toxicity

Sensitization According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified

This product is formulated using a range of microorganisms specially selected from the natural environment

12. ECOLOGICAL INFORMATION

Ecotoxicity

This product is not expected to pose an environmental hazard. No Toxicity Data is available specifically for soil organisms, plants and terrestrial animals.

Environmental Effects	The data available do not support any environmental hazard
Persistence/Degradability	The organic components of the product are biodegradable.
Bioaccumulative Potential	Does Not bioaccumulate based on available information
Mobility	Will likely be mobile in the environment due to its water solubility but will likely degrade over time Not available
Other adverse effects	No information available No known effect

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents/container in accordance with local regulation.
Contaminated Packaging	Dispose of wastes in an approved waste disposal facility.

14. TRANSPORT INFORMATION

Transport Regulations	No dangerous goods according to transport regulations
IMDG/IMO	Not regulated
RID	Not regulated
ADR	Not regulated
ICAO	Not regulated
IATA	Not regulated
DOT	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
PICCS	Complies
KECL	Complies
ENCS	Complies
CHINA	Complies
AICS	Complies
DSL/NDSL	Does not Comply

USA, Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and 40 CFR Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

USA, State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals

Canada

WHMIS Hazard Class Controlled product hazard class D2 A (respiratory sensitizer)

WHMIS Statement This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

16. OTHER INFORMATION

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. Furthermore, as the conditions of use are beyond the control of Novozymes, it is the responsibility of the customer to determine the conditions of safe use of these products.



Report version

1 / ANSI / English

End of Material Safety Data Sheet