



Safety Data Sheet (SDS)

BIO-DEX LABORATORIES, LLC

Enzyme + Clarifier

Revision Date: 10/01/2019

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1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

BIO-DEX LABORATORIES, LLC
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PHOENIX, AZ 85086

Contact: BIO-DEX LABORATORIES, LLC
Phone: 800-617-3477 // 623-582-2400
Web: www.bio-dex.com

Product Name: Enzyme + Clarifier
Revision Date: 10/01/2019
Version: 1.00

SDS Number: CAS
Number: Chemical MIXTURE
Family: Chemical Flocculant Polymer
with enzymes

Formula: *** PROPRIETARY ***

Synonyms: Swimming Pool Water Clarifying Solution that includes removal of oily residues

Product Use: Biodegradable Polymer Solution that includes enzymes which aids in the removal of oily residues for Commercial and residential Pools

Emergency Phone: (800) 424-9300 (CHEMTREC)

2 HAZARDS IDENTIFICATION

NFPA:
HMIS III:

Health = 0, Fire = 0, Reactivity = 0
H0/F0/PH0



HMIS III	
HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARDS	0
PERSONAL PROTECTION A I Safety Glasses	

PERSONAL PROTECTION INDEX			
A		G	
B		H	
C		I	
D		J	
E		K	
F		X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions
A		n	
t		U	
W		Y	
Z		q	
r		s	
Additional Information			

GHS Precautionary Statements:

- DP264 - Wash skin thoroughly after handling.
- DP302+352 - IF ON SKIN: Wash with soap and water.
- DP305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- DP332+313 - If skin irritation occurs: Get medical advice/attention.
- DP337+313 - If eye irritation persists: Get medical advice/attention.
- DP362 - Take off contaminated clothing and wash before reuse.



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DP501 - Dispose of contents/container to an approved waste disposal plant.

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COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	I	Percentage	I	Chemical Name
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N/A	I	100%	I	Proprietary, non-hazardous, non-regulated
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FIRST AID MEASURES

- Inhalation:** Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
- Skin Contact:** Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. Remove contaminated clothing and wash before reuse. If reddening develops and/or persists, obtain medical attention.
- Eye Contact:** Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Remove contact lenses if present and easy to do so. If eye irritation persists, obtain medical attention.
- Ingestion:** Rinse mouth with water. Do NOT induce vomiting unless instructed to do so. Give 3-4 glasses of water or milk to dilute stomach contents. Never give anything by mouth to an unconscious person. If symptoms develop and/or persist, obtain medical attention.

Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see Section 2) and/or Section 11.

Indication of any immediate medical attention and special treatment needed:

No data available.

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FIRE FIGHTING MEASURES

- Flammability:** Not flammable
- Flash Point:** DNA
- Flash Point Method:** DNA
- Burning Rate:** No data available
- Autoignition Temp:** No data available
- LEL:** No data available
- UEL:** No data available

Extinguishing Media:

Water Spray
Water Fog
Carbon Dioxide
Alcohol-Resistant Foam
Dry Chemical

Special Hazards Arising From the Substance or Mixture:

Carbon Oxides
Hydrochloric Acid gas



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Nitrogen Oxides (NOx)
Sodium Oxides

Advice for Firefighters:

Firefighters should wear full-face, positive-pressure respirators.

Further Information:

If incinerated, may release toxic fumes.
Use water spray to cool unopened containers.
See Section 7 for more information on safe handling.
See Section 8 for more information on personal protection equipment.
See Section 13 for disposal information.

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ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment.
Keep from contacting skin or eyes.
Avoid breathing vapors, mist or gas.
Ensure adequate ventilation.
Evacuate personnel to safe areas.

Environmental Precautions:

Prevent further release (leakage/spillage) if safe to do so.

Methods and Materials for Containments and Cleaning Up:

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).
Place contaminated material into suitable, closed containers for disposal.
Dispose of contaminated material according to Section 13.
After spillage has been collected, area may be flushed with water or wet-brushed.
Ensure adequate ventilation.

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 information on proper disposal.

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HANDLING AND STORAGE

Handling Precautions:

Avoid contact with eyes, skin, or clothing.
Keep containers closed when not in use.
Do not expose containers to open flame, excessive heat, or direct sunlight.
Do not smoke, eat or drink when using this product.
Do not puncture or drop containers.
Handle with care and avoid spillage on the floor.
Keep material out of reach of children.
Keep material away from incompatible materials.
Wash thoroughly after handling.
Ensure adequate ventilation.

Storage Requirements:

Keep container tightly closed.
Do not store in direct sunlight.
Store away from strong bases, strong oxidizing agents, Iron and Iron salts, Steel (all types



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and surface treatments), Copper and Aluminum.

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EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

Personal Protective Equip: Eye/face protection:
When using material use safety glasses according to HMIS PP, A. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection:
Not required. If desired, handle with gloves made from PVC, Neoprene, Nitrile or Buna rubber. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

Body Protection:
Chemically resistant safety glasses are recommended. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

Respiratory protection:
Full-face vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds. Respiratory protection must comply with 29 CFR 1910.134.

Control of environmental exposure:
Prevent leakage or spillage if safe to do so. Do not let material enter drains.

Components with workplace control parameters:

Contains no substances with occupational exposure limit values.

Biological occupational exposure limits:

Contains no substances with biological occupational exposure limit values.



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9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless to light gold liquid	Odor:	Mild
Physical State:	Liquid	Molecular Formula:	MIXTURE
Odor Threshold:	Not determined	Solubility:	100%
Particle Size:	Not determined	Softening Point:	Not determined
Spec Grav./Density:	1.006 - 1.020 g/ml (8.40 - 8.51 lbs/gal)	Percent Volatile:	79.51%
Viscosity:	Not determined	Heat Value:	Not determined
Sat. Vap. Conc.:	Not determined	Freezing/Melting Pt.:	< 0 °C (32 °F)
Boiling Point:	> 100 °C (212 °F)	Flash Point:	DNA
Flammability:	(solid, gas): Not flammable	Octanol:	Not determined
Partition Coefficient:	Not determined	Vapor Density:	(air = 1): Same as water
Vapor Pressure:	(mm Hg @ 25 °C): < 0.01	VOC:	DNA
pH:	@ 100%: 5.0 - 8.0	Bulk Density:	Not determined
Evap. Rate:	(N-Butyl Acetate = 1): Not determined	Auto-Ignition Temp:	Not determined
Molecular weight:	MIXTURE	UFL/LFL:	Not determined
Decomp Temp:	Not determined		

10 STABILITY AND REACTIVITY

Stability:	Product is stable under normal conditions.
Conditions to Avoid:	Incompatibilities, flames, ignition sources.
Materials to Avoid:	Strong bases, strong oxidizing agents, Iron and Iron salts, Steel (all types and surface treatments), Copper and Aluminum.
Hazardous Decomposition:	Carbon Oxides, Hydrochloric Acid gas, Nitrogen Oxides (NO _x) and Sodium Oxides.
Hazardous Polymerization:	Will not occur.

11 TOXICOLOGICAL INFORMATION

Component(s): Enzyme + Clarifier
CAS No(s): N/A

Acute Toxicity:

LD50 Oral - Rat: 14,600 mg/kg
LD50 Dermal - Rabbit: > 20,000 mg/kg

Skin Corrosion/Irritation: Prolonged contact may cause skin irritation.

Serious Eye Damage/Eye Irritation: Prolonged contact may cause eye irritation.

Respiratory or Skin Sensitation: Does not cause sensitization.

Germ Cell Mutagenicity: No data available.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.



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NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity: No data available.

Specific Target Organ Toxicity - Single Exposure: No data available.

Specific Target Organ Toxicity - Repeated Exposure: No data available.

Aspiration Hazard: No data available.

Additional Information: No data available.

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ECOLOGICAL INFORMATION

Component(s): Enzyme + Clarifier

CAS No(s): N/A

Toxicity:

Toxicity to fish:

LC50 - *Oncorhynchus mykiss* (Rainbow Trout): 0.74 mg/l (96 h)

LC50 *Danio rerio* (Zebra Fish): 10 - 100 mg/l (96 h)

Toxicity to daphnia and other aquatic invertebrates:

EC50 - *Daphnia magna* (Water Flea): 1.8 mg/l (48 h)

Persistence and Degradability:

Readily biodegradable.

Bioaccumulative potential:

This material is not expected to bioaccumulate.

Mobility in Soil:

Soil/Sediment: 50 - 70%

Results of PBT and vPvB assessment:

Not required/conducted.

Other Adverse Effects:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

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DISPOSAL CONSIDERATIONS

Product: Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.



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14 TRANSPORT INFORMATION

DOT (US)

Non-regulated material, liquid

IMDG

Non-regulated material, liquid

IATA

Non-regulated material, liquid

15 REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

Proprietary, non-hazardous, non-regulated (N/A 100%) NJHS, PA, TSCA

REGULATORY KEY DESCRIPTIONS

NJHS = NJ Right-to-Know Hazardous Substances

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

16 OTHER INFORMATION

Disclaimer:

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that BIO-DEX LABORATORIES, LLC. believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of BIO-DEX LABORATORIES, LLC's control, BIO-DEX LABORATORIES, LLC. makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

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