



Safety Data Sheet (SDS) BIODEX LABORATORIOS, LLC

Aquadex #50 Stain Off

SDS Number: 231

Revision Date: 5/9/2015

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1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

BIODEX LABORATORIOS, LLC
4212 W. INNOVATION DR.
PHOENIX, AZ 85086

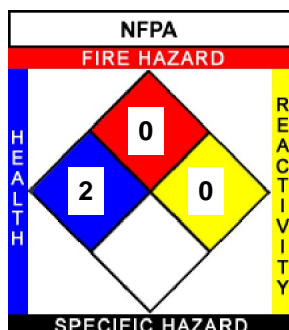
Contact: BIODEX LABORATORIOS, LLC
Phone: 800-617-3477 // 623-582-2400
Web: www.biodex.com

Product Name: Aquadex #50 Stain Off
Revision Date: 5/9/2015
Version: 1
SDS Number: 231
CAS Number: MIXTURE
Chemical Family: Organic Chelant
Chemical Formula: **PROPRIETARY*
Synonyms: Metal Stain Remover
Product Use: Solution for Removal of Copper, Iron and Metallic Stains from Plaster Pools and Black Cobalt Stains from
Emergency Phone: (800) 424-9300 (CHEMTREC)

2 HAZARDS IDENTIFICATION

NFPA:
HMIS III:

Health = 2, Fire = 0, Reactivity = 0
H*2/F0/PH0



HMIS III	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARDS	0
PERSONAL PROTECTION C Safety Glasses, Gloves, Apron	

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	
n		o	
o		p	
p		q	
q		r	
r		s	
t		u	
u		v	
v		w	
w		x	
x		y	
y		z	
z			

GHS Signal Word:
WARNING

GHS Hazard Pictograms:





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GHS Classifications:

- Physical, Corrosive to Metals, 1
- Health, Acute toxicity, 4 Oral
- Health, Skin corrosion/irritation, 2
- Health, Serious Eye Damage/Eye Irritation, 2 A
- Health, Carcinogenicity, 2

GHS Phrases:

- H290 - May be corrosive to metals
- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H351 - Suspected of causing cancer

GHS Precautionary Statements:

- P234 - Keep only in original container.
- P262 - Do not get in eyes, on skin, or on clothing.
- P264 - Wash skin thoroughly after handling.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302+352 - IF ON SKIN: Wash with soap and water.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- P332+313 - If skin irritation occurs: Get medical advice/attention.
- P337+313 - If eye irritation persists: Get medical advice/attention.
- P362 - Take off contaminated clothing and wash before reuse.
- P405 - Store locked up.
- P501 - Dispose of contents/container to an approved waste disposal plant.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
N/A	>88%	Proprietary, non-hazardous, non-regulated
62099-15-4	<5%	Disodium (hydroxyethyl)ethylenediamine diacetate
2836-32-0	<5%	Acetic acid, hydroxy-, monosodium salt
1310-73-2	<2%	Sodium hydroxide
5064-31-3	<1.5%	Nitrilotriacetic acid, trisodium salt

4 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:** Take off contaminated clothing and shoes immediately. Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. 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. Give 3-4 glasses of water or milk to dilute stomach contents. Do NOT induce vomiting. If vomiting occurs, give more water or milk. Never give anything by mouth to an unconscious



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person. Seek immediate 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: DNA
UEL: DNA

Extinguishing Media:

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

Special Hazards Arising From the Substance or Mixture:

Carbon Oxides
Nitrogen Oxides (NO_x)
Sodium Oxides

Advice for Firefighters:

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

Further Information:

If incinerated, may release toxic fumes.
Gives off Hydrogen by reaction with reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.). Hydrogen is flammable and potentially explosive. Use caution.
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.



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Environmental Precautions:

Prevent further release (leakage/spillage) if safe to do so.
Do not allow product to enter drains.
Do not allow to drain to environment.

Methods and Materials for Containments and Cleaning Up:

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).
Neutralizing agent like Sodium Bicarbonate may also be used to absorb/neutralize any spilled material.
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 breathing vapors or mist.
Avoid contact with eyes, skin, or clothing.
Keep containers closed when not in use.
Use approved, original containers only.
Do not use corrosive sensitive materials for handling this product (metals, etc.).
Do not expose containers to open flame, excessive heat, or direct sunlight.
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 above freezing point.
Store away from strong acids, strong oxidizing agents, strong reducing agents, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), Carbon steel, Copper and its alloys, Galvanized surfaces, Nickel, Alkali metals (Lithium, Sodium, Potassium, etc.), Tin & Tin Oxides, Lead, Phosphorous & Phosphorous Pentoxide, Nitro compounds (Nitromethane, etc.), Azides, Anhydrides, organic materials and chlorinated solvents.

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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, gloves and apron according to HMIS PP, C. All safety equipment should be tested and approved under appropriate government standards



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such as NIOSH (US) or EN 166 (EU).

Skin protection:

Handle with gloves made from Neoprene, Nitrile, PVC 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 gloves, safety glasses and apron 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:

Component(s): Sodium Hydroxide

CAS No(s): 1310-73-2

USA OSHA Table Z-1 Limits for Air Contaminants (C): 2 mg/m³

USA OSHA Occupational Exposure Limits Table Z-1 Limits for Air Contaminant (TWA): 2 mg/m³

USA ACGIH (C/TLV): 2 mg/m³

USA ACGIH (CEIL/TLV): 2 mg/m³

USA NIOSH Recommended Exposure Limits (C): 2 mg/m³

Biological occupational exposure limits:

Contains no substances with biological occupational exposure limits values.

Derived No Effect Level (DNEL):

Component(s): Sodium Hydroxide

CAS No(s): 1310-73-2

Inhalation - Workers (Long-term local effects): 1 mg/m³

Inhalation - Consumers (Long-term local effects): 1 mg/m³



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9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, light yellow Liquid	Odor:	Slight ammoniacal
Physical State:	Liquid	Molecular Formula:	MIXTURE
Odor Threshold:	Not determined	Solubility:	100%
Particle Size:	Not determined	Softening Point:	Not determined
Spec Grav./Density:	1.290 g/ml (10.077 lbs/gal)	Percent Volatile:	60.57%
Viscosity:	Not determined	Heat Value:	Not determined
Sat. Vap. Conc.:	Not determined	Freezing/Melting Pt.:	-34 °C (30 °F)
Boiling Point:	107 °C (225 °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 @ 20 °C): Same as water	VOC:	DNA
pH:	@ 10%: 11.0 - 11.8	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 acids, strong oxidizing agents, strong reducing agents, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), Carbon steel, Copper and its alloys, Galvanized surfaces, Nickel, Alkali metals (Lithium, Sodium, Potassium, etc.), Tin & Tin Oxides, Lead, Phosphorous & Phosphorous Pentoxide, Nitro compounds (Nitromethane, etc.), Azides, Anhydrides, organic materials and chlorinated solvents.
Hazardous Decomposition:	Carbon Oxides, Nitrogen Oxides (NOx) and Sodium Oxides.
Hazardous Polymerization:	Will not occur.

11 TOXICOLOGICAL INFORMATION

Component(s): Disodium (hydroxyethyl)ethylenediamine diacetate; Acetic acid, hydroxy-, monosodium salt; Sodium Hydroxide; Nitriloacetic acid, trisodium salt
CAS No(s): 62099-15-4; 2836-32-0; 1310-73-2; 1310-73-2

Acute Toxicity:

LD50 Oral - Rat: 1,100 mg/kg

LDL Oral - Rabbit: 500 mg/kg

LD50 Dermal - Rabbit: 1,350 mg/kg

Skin Corrosion/Irritation: Rabbit skin - Corrosive (24 h).

Serious Eye Damage/Eye Irritation: Rabbit eyes - Corrosive (24 h).

Respiratory or Skin Sensitation: Will no occur.

Germ Cell Mutagenicity: No data available.

Carcinogenicity: This product is or contains a component that is possibly carcinogenic based on its IARC, ACGIH, NTP or



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OSHA classification (Nitriloacetic acid, trisodium salt).

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Nitriloacetic acid).

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.

NTP: Reasonably anticipated to be a human carcinogen (Nitriloacetic acid).

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: Respiratory system - May cause respiratory irritation.

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

Aspiration Hazard: No data available.

Additional Information:

Component: Disodium (hydroxyethyl)ethylenediamine diacetate; RTECS: N/A

Component: Sodium Hydroxide; RTECS: WB4900000

Component: Acetic acid, hydroxy-, monosodium salt; RTECS: MC5525000

Component: Nitriloacetic acid, trisodium salt; RTECS: AJ0175000

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ECOLOGICAL INFORMATION

Component(s): Disodium (hydroxyethyl)ethylenediamine diacetate; Acetic acid, hydroxy-, monosodium salt; Sodium Hydroxide; Nitriloacetic acid, trisodium salt

CAS No(s): 62099-15-4; 2836-32-0; 1310-73-2; 1310-73-2

Toxicity:

Toxicity to fish:

LC50 - *Gambusia affinis* (Mosquito Fish): 125 mg/l (96 h)

LC50 - *Oncorhynchus mykiss* (Rainbow Trout): 45.4 mg/l (96 h)

LC50 - *Leucisus idus melanotus* (Orfe): 475 mg/l (48 h)

LC0 - *Leucisus idus melanotus* (Orfe): 460 mg/l (48 h)

Toxicity to daphnia and other aquatic invertebrates:

EC50 - *Daphnia*: > 100 mg/l (48 h)

Immobilization EC50 - *Daphnia*: 40.38 mg/l (48 h)

Toxicity to algae:

Growth Inhibition LOEC - *Desmodesmus subspicatus* (Green Algae): 5 mg/l (72 h)

Persistence and Degradability:

No data available.

Bioaccumulative potential:

No data available

Mobility in Soil:

No data available



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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. Harmful 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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TRANSPORT INFORMATION

UN #: UN 3266, Class: 8, Proper Shipping Name: Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide)

DOT (US)

UN Number: 3266

Class: 8

Packing Group: III

ERG #: 154

Proper Shipping Name: Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide)

Marine Pollutant: No

Poison Inhalation Hazard(s): No

Reportable Quantity (RQ): > 2,000 lbs (as Sodium Hydroxide)

IMDG

UN Number: 3266

Class: 8

Packing Group: III

EMS-No: F-A, S-B

Proper Shipping Name: Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide)

Marine Pollutant: No

IATA

UN Number: 3266

Class: 8

Packing Group: III

ERG #: 154

Proper Shipping Name: Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide)

Marine Pollutant: No





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15 REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

*Disodium (hydroxyethyl)ethylenediamine diacetate (62099154 <5%) NJHS, PA, SARA311/312, TSCA

*Acetic acid, hydroxy-, monosodium salt (2836320 <5%) NJHS, PA, SARA311/312, TSCA

*Sodium hydroxide (1310732 <2%) CERCLA, CSWHS, MASS, NJHS, OSHAWAC, PA, SARA311/312, TSCA, TXAIR

*Nitrilotriacetic acid, trisodium salt (5064313 <1.5%) MASS, NJHS, PA, PROP65, SARA311/312, SARA313, TSCA

REGULATORY KEY DESCRIPTIONS

CERCLA = Superfund clean up substance
CSWHS = Clean Water Act Hazardous substances
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
OSHA = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
PROP65 = CA Prop 65
SARA311/312 = SARA 311/312 Toxic Chemicals
SARA313 = SARA 313 Title III Toxic Chemicals
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level

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 LABORATORIOS, 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 LABORATORIOS, LLC's control, BIO-DEX LABORATORIOS, 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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