

1. Product and Company Identification

Product Code:	00400	
Product Name:	D/2 Biological Solution	
Company Name:	D/2 Biological Solution, Inc. PO Box 3746 Westport, MA 02790	Phone Number: (917)693-7441
Web site address:	d2bio.com	
Emergency Contact:	Chem-Tel	(800)255-3924
Recommended Use:	Removal of stains from mold, algae, mildew, lichen and air pollutants. Effective on marble, granite, limestone, travertine, brownstone, masonry, stucco, wood, canvas and other architectural surfaces.	
Intended Use:	For sale to, use and storage by service persons only.	
Additional Information:	Additional Product Codes: 00401, 00402	

2. Hazards Identification**Skin Corrosion/Irritation, Category 3****Serious Eye Damage/Eye Irritation, Category 2B****Acute Toxicity: Oral, Category 4****GHS Signal Word:****GHS Hazard Phrases:****Warning**

Causes mild skin irritation.

Causes eye irritation.

GHS Precaution Phrases:

Harmful if swallowed.

GHS Response Phrases:

Do not eat, drink or smoke when using this product.

Keep out of reach of children.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Rinse mouth.

If swallowed: Call a Poison Center or doctor if you feel unwell.

If on skin (or in hair): Wash with plenty of soap and water.

GHS Storage and Disposal Phrases:

Store in cool dry place at room temperature away from direct sunlight.

Dispose of contents and container according to the local, city, state and federal regulations.

Potential Health Effects (Acute and Chronic):

Chronic: Effects may be delayed.

Inhalation:

May be harmful if inhaled. Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. Inhalation of dust may cause respiratory tract irritation. Can produce delayed pulmonary edema. Causes irritation of the mucous membrane and upper respiratory tract.

Skin Contact:**Eye Contact:**

May be harmful if absorbed through the skin. Causes skin irritation.

Ingestion:

Causes eye irritation. May cause chemical conjunctivitis.

May be harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

3. Composition/Information on Ingredients

CAS #	Chemical Name	Concentration by wt.
7732-18-5	Water	85 - 97%
68424-85-1	Quaternary ammonium compounds, ADBAC blend	< 1%
68424-95-3	Quaternary ammonium compounds, DDAC blend	< 1%
68439-46-3	Non-ionic surfactant	2 - 4%

4. First Aid Measures

Emergency and First Aid

Procedures:

- In Case of Inhalation:** Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid.
- In Case of Skin Contact:** Wash off with soap and plenty of water. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
- In Case of Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Consult a physician.
- In Case of Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Consult a physician.
- Signs and Symptoms Of Exposure:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- Note to Physician:** Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Treat symptomatically and supportively.

5. Fire Fighting Measures

- Flash Pt:** N/A
- Explosive Limits:** LEL: N/A UEL: N/A
- Autoignition Pt:** NE
- Suitable Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
- Fire Fighting Instructions:** Wear self contained breathing apparatus for fire fighting if necessary. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.
- Flammable Properties and Hazards:** No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Spilled:	<p>Personal precautions. Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Environmental precautions. Do not let product enter drains.</p> <p>Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Use proper personal protective equipment as indicated in Section 8.</p> <p>Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.</p>
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7. Handling and Storage

Precautions To Be Taken in Handling:	<p>Handle in accordance to good industrial safety practice and hygiene. Keep container tightly closed in a dry and well-ventilated place. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.</p>
Precautions To Be Taken in Storing:	<p>Keep container tightly closed in a dry, well ventilated place away from incompatible substances (Oxidizing Agents and Chlorinated Compounds). Keep out of reach of children.</p>

8. Exposure Controls/Personal Protection

Exposure Guidelines exposure limits	<p>This product, as supplied, does not contain any hazardous materials with occupational established by the specific region regulatory bodies.</p>
Engineering Controls	<p>Eyewash station and shower.</p>
General Hygiene	<p>Handle in accordance with good industrial safety and hygiene standards. Wash hands before break and at end of the day. Do not smoke.</p>
Eye & Face Protection	<p>Wear safety goggles with side protection conforming to EN 166.</p>
Skin & Body Protection	<p>Wear protective gloves and clothing.</p>
Respiratory Protection	<p>If irritation is experienced or exposure limits are exceeded use a respirator that complies with appropriate government standards such as NIOSH (US) or CEN (EU).</p>

9. Physical and Chemical Properties

Physical States:	<input type="checkbox"/> Gas	<input checked="" type="checkbox"/> Liquid	<input type="checkbox"/> Solid
Appearance and Odor:	Colorless liquid with herbal odor.		
Melting Point:	NE		
Boiling Point:	> 212.00 F		
Freezing Point:	16 F		
Decomposition Temperature:	NE		
Autoignition Pt:	NE		
Flash Pt:	NE		
Explosive Limits:	LEL: N/A	UEL: N/A	
Specific Gravity (Water = 1):	1.020		
Density:	8.50 LB/GA		
Bulk density:	NE		
Vapor Pressure (vs. Air or mm Hg):	NE		
Vapor Density (vs. Air = 1):	> 1		
Evaporation Rate:	NE		
Solubility in Water:	100%		
Saturated Vapor Concentration:	NE		
Viscosity:	NP		
pH:	9.0 - 10.0		
Percent Volatile:	No data.		
VOC / Volume:	0.0000 G/L		
Particle Size:	NE		
Heat Value:	NE		
Corrosion Rate:	NE		

10. Stability and Reactivity

Stability:	Unstable <input type="checkbox"/>	Stable <input checked="" type="checkbox"/>
Conditions To Avoid - Instability:	No data available. Incompatible materials.	
Incompatibility - Materials To Avoid:	Strong oxidizing agents, Strong acids, Strong bases, Ammonia, magnesium, Sodium, calcium salts.	
Hazardous Decomposition Or Byproducts:	Thermal decomposition can lead to irritating and toxic fumes and gases	
Possibility of Hazardous Reactions:	Will occur <input type="checkbox"/>	Will not occur <input checked="" type="checkbox"/>
Conditions To Avoid - Hazardous Reactions:	None.	

11. Toxicological Information

Toxicological Information:	<p>Acute toxicity. No data available.</p> <p>Respiratory or skin sensitization: Germ cell mutagenicity. Reproductive toxicity - no data available.</p> <p>Specific target organ toxicity -single exposure (Globally Harmonized System)</p> <p>Specific target organ toxicity -repeated exposure (Globally Harmonized System)</p> <p>Aspiration hazard. Epidemiology: No information found.</p> <p>Teratogenicity: No information available. Reproductive Effects: Mutagenicity:</p> <p>Neurotoxicity:</p> <p>CAS# 68439-46-3:</p>
Irritation or Corrosion:	<p>Acute toxicity, LD50, Oral, Rat, 1378. MG/KG.</p> <p>Results:</p> <p>Vascular: Measurement of regional blood flow.</p> <p>Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: Dehydrogenases.</p> <p>Biochemical: Metabolism (Intermediary): Lipids including transport.</p> <p>- Journal of the American College of Toxicology., Mary Ann Liebert, Inc., New York, NY, Vol/p/yr: 10(4),427, 1991</p> <p>CAS# 7320-34-5:</p> <p>Acute toxicity, LD50, Skin, Species: Rabbit, 4640. MG/KG.</p> <p>Results:</p> <p>Paternal Effects: Testes, epididymis, sperm duct.</p> <p>- National Technical Information Service, Vol/p/yr: OTS0571153,</p> <p>No data available.</p>
Carcinogenicity/Other Information:	<p>Carcinogenicity.</p> <p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.</p> <p>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.</p> <p>NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.</p> <p>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. CAS# 7320-34-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.</p>
Carcinogenicity:	<p>NTP? No IARC Monographs? No OSHA Regulated? No</p>

12. Ecological Information

Results of PBT and vPvB assessment:	<p>No data available.</p> <p>CAS# 68439-46-3:</p> <p>LC50, Fathead Minnow (Pimephales promelas), 11000. UG/L, 96 H, Mortality, Water temperature: 22.00 C C.</p> <p>Results:</p> <p>Morphological changes.</p> <p>- Acute Toxicity and Structure-Activity Relationships of Nine Alcohol Ethoxylate Surfactants to Fathead Minnow and Daphnia magna, Wong, D.C.L., P.B. Dorn, and E.Y. Chai, 1997</p>
Persistence and Degradability:	<p>No data available.</p>



SAFETY DATA SHEET

D/2 Biological Solution

Bioaccumulative**Potential:** No data available**Mobility in Soil:** No data available.

13. Disposal Considerations

Waste Disposal Method: Product.
Observe all federal, state, and local environmental regulations.
Do not reuse container.

14. Transport Information

LAND TRANSPORT (US DOT):**DOT Proper Shipping Name:** Not regulated as a hazardous material.**DOT Hazard Class:****UN/NA Number:****LAND TRANSPORT (Canadian TDG):****TDG Shipping Name:** Not Regulated.**MARINE TRANSPORT (IMDG/IMO):****IMDG/IMO Shipping Name:** Not Regulated.**AIR TRANSPORT (ICAO/IATA):****ICAO/IATA Shipping Name:** Not Regulated.

15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Chemical Name	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7173-51-5	1-Decanaminium, N-Decyl-N,N-dimethyl-, chloride	No	No	No
29911-27-1	2-Propanol, 1-(1-methyl-2-propoxyethoxy)-	No	No	No
7396-58-9	Didecylamine, N-methyl-	No	No	No

CAS #	Chemical Name	Other US EPA or State Lists
7173-51-5	1-Decanaminium, N-Decyl-N,N-dimethyl-, chloride	CA PROP.65: No; CA TAC, Title 8: No
29911-27-1	2-Propanol, 1-(1-methyl-2-propoxyethoxy)-	CA PROP.65: No; CA TAC, Title 8: No
7396-58-9	Didecylamine, N-methyl-	CA PROP.65: No; CA TAC, Title 8: No

U.S. Federal Regulations

SARA 302, 304, 313	Superfund Amendment and Reauthorization Act of 1986	In compliance
CA PROP. 65	California Proposition 65	In compliance
CWA	Clean Water Act	In compliance
CERCLA	Comprehensive Environmental Response and Compensation Act	In compliance

International Regulations

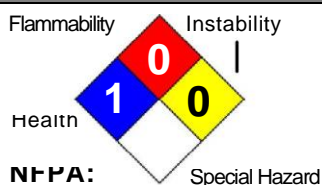
TSCA	U.S. Toxic Substance Control Act Section 8(b) Inventory	In compliance
DSL/NDSL	Canadian Domestic Substance List/Non Domestic Substance List	In compliance

16. Other Information

Hazard Rating System:

HEALTH	1
FLAMMABILITY	0
PHYSICAL	0
PPE	B

HMIS:



Revision Date: 09/20/2019

Additional Information About No data available.

This Product:

**Company Policy or
Disclaimer:**

The manufacturer believes the data set forth are accurate and makes no warranty with respects thereto and disclaims all liability for reliance thereon. Such data are offered solely for consideration, investigation and verification. Also, the data set forth is for the concentrated finished product. All lab samples are for experimental purposes only and used at the customers discretion.