

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** BIO-40 TB  
**GENERAL USE:** Cleaner and disinfectant  
**PRODUCT DESCRIPTION:** Cleaner and disinfectant  
**PRODUCT CODE:** 12260

### MANUFACTURER OR SUPPLIER INFORMATION

Artemis Bio-Solutions, LLC  
14505 Torrey Chase Blvd Suite 205  
Houston, TX 77014, USA

**Emergency Contact:** INFOTRAC

**Emergency Phone:** 1(800) 535-5053

**Alternate Emergency Phone:** 1(352) 323-3500

**Customer Service :** 1 (630) 359-4090

**E-Mail:** info@artemisbiosolutions.com

### 24 HR. EMERGENCY TELEPHONE NUMBERS

**AAPCC Poison Help:** (800) 424-9300

**CANUTEC (Canadian Transportation):** (613) 996-6666

**INFOTRAC (US Transportation) :** (800) 535-5053

## 2. HAZARDS IDENTIFICATION

### GHS CLASSIFICATIONS

Health:

Skin Corrosion/Irritation, Category 1

Serious eye damage/eye irritation, Category 1

### GHS LABEL



**SIGNAL WORD: DANGER**

**HAZARD STATEMENTS**

### PRECAUTIONARY STATEMENTS

**Prevention:**

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

**Response:**

Immediately call a POISON CENTER or doctor/physician

Specific Treatment (See Section 4 on the SDS)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor/physician if you feel unwell  
 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting  
 Drink plenty of water or preferably milk.  
 Immediately call a POISON CENTER or doctor/physician

**Storage:**

Store locked up.

**Disposal:**

Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
2-(2-butoxyethoxy)ethanol	5-10	112-34-5
Tetrasodium EDTA	1-5	64-02-8

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST-AID MEASURES

**First Aid Measures**

**General Advice**

Immediate medical attention is required.

**Eye Contact**

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

**Skin Contact**

Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**Inhalation**

Remove to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Ingestion**

Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

**Most important symptoms and effects**

Any additional important symptoms and effects are described in Section 11: Toxicology

**Eyes**

Adverse symptoms may include pain or irritation, watering, and redness. Can cause serious eye damage.

**Skin**

Adverse symptoms may include irritation and redness

**Ingestion**

Adverse symptoms may include nausea and vomiting.

**Inhalation**

Adverse symptoms may include respiratory tract irritation and coughing.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable Extinguishing Media</b>	Caution: Use of water spray when fighting fire may be inefficient.
<b>Specific Hazards Arising from the Chemical</b>	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.
<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal Precautions</b>	Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.
<b>Environmental Precautions</b>	Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains

### Methods and material for containment and cleaning up

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Clean-Up</b>	Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Advice on Safe Handling</b>	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.
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### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.
<b>Incompatible Materials</b>	Incompatible with strong acids and bases. Incompatible with oxidizing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-(2-butoxyethoxy)ethanol 112-34-5	TWA: 10 ppm inhalable fraction and vapor	---	---
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m3 (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m3 (vacated)	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m3
Sodium Hydroxide 1310-73-2	Ceiling: 2 mg/m3	TWA: 2 mg/m3 (vacated) Ceiling: 2 mg/m3	IDLH: 10 mg/m3 Ceiling: 2 mg/m3

*NIOSH IDLH Immediately Dangerous to Life or Health*

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

### Appropriate engineering controls

#### Engineering Controls

Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

#### Eye/Face Protection

*Distribution, Workplace and Household Settings:*  
No special protective equipment required.  
*Product Manufacturing Plant (needed at Product-Producing Plant ONLY):*  
Use appropriate eye protection,

#### Hand Protection

*Distribution, Workplace and Household Settings:*  
No special protective equipment required  
*Product Manufacturing Plant (needed at Product-Producing Plant ONLY):*  
Protective gloves

#### Skin and Body Protection

*Distribution, Workplace and Household Settings:*  
No special protective equipment required  
*Product Manufacturing Plant (needed at Product-Producing Plant ONLY):*  
Wear suitable protective clothing

#### Respiratory Protection

*Distribution, Workplace and Household Settings:*  
No special protective equipment required  
*Product Manufacturing Plant (needed at Product-Producing Plant ONLY):*  
In case of inadequate ventilation wear respiratory protection

#### General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid
<b>Appearance</b>	Clear liquid
<b>Color</b>	Clear
<b>Odor</b>	Forrest Fresh
<b>Odor Threshold</b>	Not Determined
<b>Property</b>	<b>Values</b>
<b>pH</b>	11.5 - 12.0
<b>Melting Point/Freezing Point</b>	No Information available
<b>Boiling Point/Boiling Range</b>	<212 °F
<b>Flash Point</b>	>212 °F
<b>Evaporation Rate</b>	No Information available
<b>Flammability (Solid, Gas)</b>	Not Flammable
<b>Upper Flammability Limits</b>	No Information available
<b>Lower Flammability Limit</b>	No Information available
<b>Vapor Pressure</b>	17.5mmHg@20°C
<b>Vapor Density</b>	No Information available
<b>Specific Gravity</b>	1.006 (8.36 lbs/gal)
<b>Water Solubility</b>	Completely soluble
<b>Solubility in other solvents</b>	N/A
<b>Partition Coefficient</b>	No Information available
<b>Auto-ignition Temperature</b>	No Information available
<b>Viscosity</b>	< 25 cP @ 25°C
<b>VOC Content %</b>	8.01263

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

### Conditions to Avoid

Exposure to air or moisture over prolonged periods.

### Incompatible Materials

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## 11. TOXICOLOGICAL INFORMATION

### Numerical measures of toxicity - Product Information

**Unknown Acute Toxicity** 0.088825% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

**ATEmix (oral)** 21,289.00

**ATEmix (dermal)** 33,750.00

### Information on likely routes of exposure

#### Product Information

Harmful by inhalation, ingestion, in contact with eyes and skin.

#### Eye Contact

Contact with eyes may cause irritation or burns. Causes severe eye damage.

#### Skin Contact

Corrosive. Contact with skin may cause severe irritation and burns.

#### Inhalation

Inhalation of vapors in high concentration may cause severe irritation or burns to the respiratory tract.

#### Ingestion

Ingestion causes acute irritation and burns to the mucous membranes of the mouth, trachea, esophagus, and stomach. May cause stomach distress, nausea, or vomiting.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-(2-butoxyethoxy) ethanol 112-34-5	= 5660 mg/kg ( Rat )	= 2700 mg/kg ( Rabbit )	-
Tetrasodium EDTA 64-02-8	= 1658 mg/kg ( Rat ) = 10 g/kg ( Rat )	-	-

### Information on physical, chemical and toxicological effects

#### Symptoms

No Information available.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Carcinogenicity

Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

#### Chronic toxicity

Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage. Avoid repeated exposure. Possible risk of irreversible effects.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

0.82532% of the mixture consists of component(s) of unknown hazards to the aquatic environment

### Component Information

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-(2-butoxyethoxy)ethanol 112-34-5	100: 96 h Desmodesmus subspicatus mg/L EC50	1300: 96 h Lepomis macrochirus mg/L LC50 static	2850: 24 h Daphnia magna mg/L EC50 100: 48 h Daphnia magna mg/L EC50
Tetrasodium EDTA 64-02-8	1.01: 72 h Desmodesmus subspicatus mg/L EC50	59.8: 96 h Pimephales promelas mg/L LC50 static 41: 96 h Lepomis macrochirus mg/L LC50 static	610: 24 h Daphnia magna mg/L EC50
Sodium Metasilicate 6834-92-0	---	210: 96 h Brachydanio rerio mg/L LC50 210: 96 h Brachydanio rerio mg/L LC50 semi-static	216: 96 h Daphnia magna mg/L EC50
Ethanol 64-17-5	---	12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through	10800: 24 h Daphnia magna mg/L EC50 9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static
Trisodium nitrilotriacetate 5064-31-3	560 - 1000: 96 h Chlorella vulgaris mg/L EC50	72 - 133: 96 h Oncorhynchus mykiss mg/L LC50 static 175 - 225: 96 h Lepomis macrochirus mg/L LC50 static 252: 96 h Lepomis macrochirus mg/L LC50 470: 96 h Pimephales promelas mg/L LC50 static 93 - 170: 96 h Pimephales promelas mg/L LC50 flow-through 560 - 1000: 96 h Poecilia reticulata mg/L LC50 semi-static 560 - 1000: 96 h Poecilia reticulata mg/L LC50 114: 96 h Pimephales promelas mg/L LC50 560 - 1000: 96 h Oryzias latipes mg/L LC50 560 - 1000: 96 h Oryzias latipes mg/L LC50 semi-static	560 - 1000: 48 h Daphnia magna mg/L LC50
Sodium Hydroxide 1310-73-2	---	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	---

### Persistence/Degradability

No Information available.

### Bioaccumulation

No Information available.

### Mobility

No Information available.

### Other Adverse Effects

No Information available.

## 13. DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

**Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Do not reuse container

This product contains one or more substances that are listed with the State of California as a hazardous waste.

## 14. TRANSPORT INFORMATION

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.  
**DOT** Not regulated  
**IATA** Not regulated  
**IMDG** Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

**TSCA** Complies

**DSL/NDSL** Complies

#### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
2-(2-butoxyethoxy)ethanol - 112-34-5	1

### SARA 311/312 Hazard Categories

**Acute health hazard:** Yes

**Chronic Health Hazard:** Yes

**Fire hazard:** No

**Sudden release of pressure hazard:** No

**Reactive Hazard:** No

### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### US State Regulations

#### California Proposition 65

Chemical Name	California Proposition 65
Ethanol - 64-17-5	Carcinogen Developmental

### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2-(2-butoxyethoxy)ethanol 112-34-5	X	-	X
Ethanol 64-17-5	X	X	X
Sodium Hydroxide 1310-73-2	X	X	X
Trisodium nitrilotriacetate 5064-31-3	-	X	-



# BIO-40 TB

SAFETY DATA SHEET | OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to GHS Rev03.

Date Prepared: 07/07/2020

SDS No: AB40TB

## U.S. EPA Label Information

**EPA Pesticide Registration Number** 1839-83-87881

### EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. See the product label for the FIFRA hazard information as required on the pesticide label.

## 16. OTHER INFORMATION

NFPA	Health hazards 3	Flammability 0	Instability 0	Physical and Chemical Properties Yes
HMIS	Health hazards 3	Flammability 0	Physical hazards 0	Personal protection B

Issue Date: 05-Aug-2011  
Revision Date: 04-Aug-2022  
Revision Note: Heading and name correction  
Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet