

1. PRODUCT AND COMPANY IDENTIFICATION

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

MANUFACTURER

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

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	Caution: Use of water spray when fighting fire may be inefficient.
Specific Hazards Arising from the Chemical	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.
Protective equipment and precautions for firefighters	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

Personal Precautions	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.
Environmental Precautions	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

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	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

Advice on Safe Handling	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

Storage Conditions	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.
Incompatible Materials	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	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

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

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Revision Date: 07-July-2020
Revision Note: New format
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