

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : BioT[®] Max

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

BioChem Systems, Inc.
480 Wildwood Forest Drive
Suite 400
Spring, TX 77380
1 (800) 777-7870

1.4. Emergency telephone number

Emergency number : PERS - (800) 633-8253

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 3 H226
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Skin Sens. 1 H317
Asp. Tox. 1 H304

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H226 - Flammable liquid and vapor.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.

Precautionary statements (GHS US) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves, protective clothing, chemical goggles, & face protection.
P301+P310 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P331 - Do NOT induce vomiting.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Terpenes and Terpenoids, sweet orange-oil	(CAS-No.) Proprietary	85 – 100
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched	(CAS-No.) Proprietary	7 – 13
Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	(CAS-No.) Proprietary	0 – 2

*In accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200), the specific chemical identity or exact weight % has been withheld as a trade secret.

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SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.
- First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. Get medical attention immediately.
- First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.
- Symptoms/effects after inhalation : May be fatal if swallowed and enters airways.
- Symptoms/effects after skin contact : Causes skin irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Causes serious eye irritation.
- Symptoms/effects after ingestion : May be fatal if swallowed and enters airways.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Carbon dioxide. Foam. Dry powder. Sand. Water spray.

5.2. Specific hazards arising from the chemical

- Fire hazard : Flammable liquid and vapour.
- Explosion hazard : Product is not explosive.
- Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. Prevent human exposure to fire, fumes, smoke and products of combustion.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection. Use special care to avoid static electric charges. Avoid breathing fumes or vapours. No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Approved supplied-air respirator, in case of emergency. Wear suitable protective clothing, gloves and eye or face protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Sweep or shovel spills into appropriate container for disposal. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Wash spill area thoroughly with plenty of soap and water. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Notify authorities if product enters sewers or public waters.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Provide good ventilation in process area to prevent formation of vapour. Do not breathe vapours, mist. Keep container tightly closed in a cool place. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, cool, well-ventilated area. Keep cool. Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Incompatible materials : Strong oxidizing agents. Strong acids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Terpenes and Terpenoids, sweet orange-oil		
ACGIH & OSHA	Remark	OELs not established
Amides, tall-oil fatty, N,N-bis(hydroxyethyl)		
ACGIH & OSHA	Remark	OELs not established
Diethanolamine (111-42-2)		
ACGIH	ACGIH OEL TWA	1 mg/m ³ inhalable fraction and vapor
ACGIH	Remark (ACGIH)	TLV [®] Basis: Liver & kidney dam. Notations: Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)

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Diethanolamine (111-42-2)		
ACGIH	Regulatory reference	ACGIH 2022
OSHA	OSHA PEL TWA [1]	15 mg/m ³ vacated
OSHA	OSHA PEL TWA [2]	3 ppm vacated
NIOSH	NIOSH REL TWA	15 mg/m ³
NIOSH	NIOSH REL TWA [ppm]	3 ppm
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched		
ACGIH & OSHA	Remark	OELs not established

8.2. Appropriate engineering controls

Appropriate engineering controls

: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment symbol(s):



Personal protective equipment:

Gloves. Protective goggles. Protective clothing.

In case of inadequate ventilation wear respiratory protection.

Hand protection:

Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified and selected according to regional or national standards. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate PVC, or vinyl. Suitable gloves should be recommended by the glove supplier.

Eye protection:

Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection:

Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection:

In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with gas filter (type A2). Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Slightly yellow
Odor	: Citrus
Odor threshold	: No data available
pH	: 7.5-8.5 (10%)
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 334 °F (167.8 °C)
Flash point	: 130 °F (54.4 °C)
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: < 2 mm Hg @ 20 °C
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.863
Solubility	: Negligible.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No flames, no sparks. Eliminate all sources of ignition. Elevated temperature. Prevent vapour accumulation.

10.5. Incompatible materials

Acids. Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Terpenes and Terpenoids, sweet orange-oil	
LD50 oral rat	4400 mg/kg Source: HNSO CCID

Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched	
LD50 oral rat	1310 mg/kg

Skin corrosion/irritation	: Causes skin irritation. [pH: 7.5- 8.5 (10%)]
Serious eye damage/irritation	: Causes serious eye irritation. [pH: 7.5- 8.5 (10%)]
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.
Viscosity, kinematic	: No data available
Symptoms/effects	: May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.
Symptoms/effects after inhalation	: May be fatal if swallowed and enters airways.
Symptoms/effects after skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : No information available.

12.2. Persistence and degradability

BioT[®] Max	
Persistence and degradability	No information available.

12.3. Bioaccumulative potential

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Bioaccumulative potential	No information available.

12.4. Mobility in soil

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Mobility in soil	No information available.

12.5. Other adverse effects

No additional information available


SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

Transport document description (DOT)	: UN2319 Terpene hydrocarbons, n.o.s., 3, III	
UN-No. (DOT)	: UN2319	
Proper Shipping Name (DOT)	: Terpene hydrocarbons, n.o.s.	
Class (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120	
Packing group (DOT)	: III - Minor Danger	
Hazard labels (DOT)	: 3 - Flammable liquid	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L	
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.	
Emergency Response Guide (ERG) Number	: 128	
Other information	: Non-Bulk Domestic Ground: This material is not regulated for domestic ground shipments by the U.S. Department of Transportation (DOT) when transported in non-bulk (a packaging which has a maximum capacity of 119 gallons or less as a receptacle for a liquid). Reference 49 CFR 173.120(b) (2) and 173.150 (f) (1). In summary, for non-bulk domestic ground shipments: DOT Class: Not Regulated Hazard Class: Not Applicable UN No.: Not Applicable	

Transport by sea (IMDG)

Transport document description (IMDG)	: UN 2319 TERPENE HYDROCARBONS, N.O.S., 3, III (54°C c.c.)
UN-No. (IMDG)	: 2319
Proper Shipping Name (IMDG)	: TERPENE HYDROCARBONS, N.O.S.
Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: III - substances presenting low danger
Limited quantities (IMDG)	: 5 L

Air transport (IATA)

Transport document description (IATA)	: UN 2319 Terpene hydrocarbons, n.o.s., 3, III	
UN-No. (IATA)	: 2319	
Proper Shipping Name (IATA)	: Terpene hydrocarbons, n.o.s.	
Class (IATA)	: 3 - Flammable Liquids	
Packing group (IATA)	: III - Minor Danger	

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SECTION 15: Regulatory information

15.1. US Federal regulations

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All chemical substances in this product are listed as "Active" in the EPA (Environmental Protection Agency) "TSCA Inventory Notification (Active-Inactive) Requirements Rule" ("the Final Rule") of Feb 2019, as amended Feb 2021 or are otherwise exempt, or regulated by other agencies such as FDA or FIFRA	
SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Aspiration hazard Health hazard - Skin corrosion or Irritation Health hazard - Respiratory or skin sensitization

15.2. International regulations

No additional information available

15.3. US State regulations

⚠ WARNING: This product can expose you to Diethanolamine, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	Carcinogenicity	Developmental toxicity	Reproductive toxicity male	Reproductive toxicity female	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Diethanolamine(111-42-2)	X					

Component	State or local regulations
Diethanolamine(111-42-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

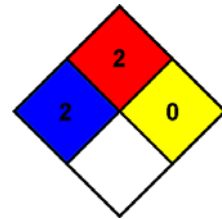
Other information : Revised by: Regulatory & Compliance.
: Date of Revision: 02/14/2024

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.

HMIS Hazard Rating
Health : 2
Flammability : 2
Physical : 0



This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.