

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : BioT Max  
Product group : Trade product

#### 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 identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS CA)

Flammable liquids, Category 3	H226	Flammable liquid and vapour.
Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
Aspiration hazard, Category 1	H304	May be fatal if swallowed and enters airways.

#### 2.2. GHS Label elements, including precautionary statements

##### GHS CA labelling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : H226 - Flammable liquid and vapour.  
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 CA) : 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 action to prevent static discharges.  
P261 - Avoid breathing mist/vapours/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves, protective clothing, chemical goggles, & face protection.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .  
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.  
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

No additional information available

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### 2.4. Unknown acute toxicity (GHS CA)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Terpenes and Terpenoids, sweet orange-oil	Orange oil terpenes / Orange oil, terpenes / Sweet orange oil terpenes / Terpenes and terpenoids, orange oil / Terpenes, orange oil / Orange, sweet, extract / Orange terpenes / Terpenes and terpenoids, orange-oil / Oils, sweet orange (terpenes and terpenoids) / Terpenes and terpenoids, sweet orange-oil	CAS-No.: 68647-72-3	80 – 100
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched	α-(4-Nonylphenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl), branched 4-Nonylphenol, branched, ethoxylated / Polyethylene glycol, mono(p-nonylphenyl) ether, branched / .alpha.-(p-Nonylphenyl)-.omega.-hydroxypoly(oxyethylene) branched / .alpha.-(4-Nonylphenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) branched / Nonylphenoethoxylates / 4-Nonylphenol, branched, ethoxylated, 1 - 2.5 moles ethoxylated	CAS-No.: 127087-87-0	7 – 13
Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	Amides, tall oil fatty N,N-bis(hydroxyethyl) / Amides, tall oil fatty, N,N-bis(hydroxyethyl) / Tall oil acid diethanolamide / Tall oil diethanolamide / Tall oil fatty acid diethanolamide / Tall oil fatty acids, diethanolamide / Tall oil fatty acids, diethanolamide condensate / Tall oil fatty acids, diethanolamine amide / Tallamide DEA / TALLAMIDE DEA	CAS-No.: 68155-20-4	0 – 1.5

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

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.
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.

### 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 extinguishing media

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

### 5.2. Unsuitable extinguishing media

No additional information available

### 5.3. Specific hazards arising from the hazardous product

Fire hazard	: Flammable liquid and vapour.
Explosion hazard	: Product is not explosive.

### 5.4. 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.

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### 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.

#### 6.2. Methods and materials 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.

#### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

### 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 (68647-72-3)

##### USA – OSHA / ACGIH - Occupational Exposure Limits

Remark	OELs not established
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##### Canada (all provinces) - Occupational Exposure Limits

Remark	OELs not established
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##### Amides, tall-oil fatty, N,N-bis(hydroxyethyl) (68155-20-4)

##### USA – OSHA / ACGIH - Occupational Exposure Limits

Remark	OELs not established
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##### Canada (all provinces) - Occupational Exposure Limits

Remark	OELs not established
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##### Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)

##### USA – OSHA / ACGIH - Occupational Exposure Limits

Remark	OELs not established
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##### Canada (all provinces) - Occupational Exposure Limits

Remark	OELs not established
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#### 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:

Gloves. Protective goggles. Protective clothing. In case of inadequate ventilation wear respiratory protection.

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<b>Hand protection:</b>
Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.
<b>Eye protection:</b>
Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.
<b>Skin and body protection:</b>
Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.
<b>Respiratory protection:</b>
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.

### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Slightly yellow
Odour	: Citrus
Odour threshold	: No data available
pH	: 7.5- 8.5 (10%)
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 334 °F (167.8 °C)
Flash point	: 130 °F (54.4 °C)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 2 mm Hg @20 C
Relative vapour 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
Viscosity, kinematic	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

Reactivity	: No dangerous reactions known under normal conditions of use.
Chemical stability	: Stable under recommended handling and storage conditions (see section 7).
Possibility of hazardous reactions	: No data available.
Conditions to avoid	: No flames, no sparks. Eliminate all sources of ignition. Elevated temperature. Prevent vapour accumulation.
Incompatible materials	: Acids. Strong oxidizing agents.
Hazardous decomposition products	: Carbon oxides (CO, CO <sub>2</sub> ). Toxic fumes.
Hardening time:	: No additional information available

## 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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<b>Terpenes and Terpenoids, sweet orange-oil (68647-72-3)</b>	
LD50 oral rat	4400 mg/kg Source: HNSO CCID
<b>Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)</b>	
LD50 oral rat	1310 mg/kg
LD50 oral	657.2 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: other., Remarks on results: other., 95% CL: 265 - 1664,2
LC50 Inhalation - Rat (Dust/Mist)	0.52 – 1.03 mg/l
ATE CA (oral)	1310 mg/kg bodyweight
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 sensitization	: 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.
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.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

#### BioT Max

Persistence and degradability	No information available.
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### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Ozone	: Not classified
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## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods	: Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. No discharges to surface waters are allowed without authorization under the Wastewater Systems Effluent Regulations. Follow all national, provincial and local requirements for wastewater discharge.
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

In accordance with TDG / DOT / IMDG / IATA

### 14.1. UN number

UN-No. (TDG)	: UN2319
DOT NA No	: UN2319
UN-No. (IMDG)	: 2319
UN-No. (IATA)	: 2319

### 14.2. UN proper shipping name

Proper Shipping Name (TDG)	: TERPENE HYDROCARBONS, N.O.S.
Proper Shipping Name (DOT)	: Terpene hydrocarbons, n.o.s.
Proper Shipping Name (IMDG)	: TERPENE HYDROCARBONS, N.O.S.

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Proper Shipping Name (IATA) : Terpene hydrocarbons, n.o.s.

### 14.3. Transport hazard class(es)

#### TDG

Transport hazard class(es) (TDG) : 3  
Hazard labels (TDG) : 3



#### DOT

Transport hazard class(es) (DOT) : 3  
Hazard labels (DOT) : 3



#### IMDG

Transport hazard class(es) (IMDG) : 3  
Danger labels (IMDG) : 3



#### IATA

Transport hazard class(es) (IATA) : 3  
Danger labels (IATA) : 3



### 14.4. Packing group

Packing group (TDG) : III  
Packing group (DOT) : III  
Packing group (IMDG) : III  
Packing group (IATA) : III

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

#### TDG

UN-No. (TDG) : UN2319  
Explosive Limit and Limited Quantity Index : 5 L  
Excepted quantities (TDG) : E1  
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 60 L  
Emergency Response Guide (ERG) Number : 128  
Other information :

In accordance with TDG Part 9: Consignments of dangerous goods that originate in the United States... can be transported in Canada under the requirements of 49 CFR. However, consignments that originate in Canada are not permitted under these Regulations...When a consignment of dangerous goods is transported from a place outside Canada to a place in Canada and is reshipped within Canada by road vehicle, the dangerous goods safety marks displayed in accordance with 49 CFR, the ICAO Technical Instructions or the IMDG Code at the time of entry into Canada may continue to be displayed...The shipping document that accompanies the dangerous goods must include a notation that the dangerous goods safety marks are in accordance with 49 CFR, the ICAO Technical Instructions or the IMDG Code  
DOT (TDG) Class: Not Regulated Hazard Class: Not Applicable UN No.: Not Applicable

#### DOT

UN-No.(DOT) : UN2319  
DOT Special Provisions : 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 Packaging Exceptions (49 CFR 173.xxx) : 150  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203  
DOT Packaging Bulk (49 CFR 173.xxx) : 242  
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.

#### IMDG

Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP1, TP29  
EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS  
EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS

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Stowage category (IMDG) : A  
Flash point (IMDG) : 32°C to 49°C c.c.  
Properties and observations (IMDG) : Colourless or yellowish liquids. Flashpoint: 32°C to 49°C c.c. Immiscible with water.

### IATA

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y344  
PCA limited quantity max net quantity (IATA) : 10L  
PCA packing instructions (IATA) : 355  
PCA max net quantity (IATA) : 60L  
CAO packing instructions (IATA) : 366  
CAO max net quantity (IATA) : 220L  
ERG code (IATA) : 3L

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. National regulations

#### BioT Max

All chemical substances in this product are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or are exempt.

### 15.2. International 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.

## SECTION 16: Other information

Revision date : 03 November 2023

Other information : Revised by: Regulatory & Compliance.

Safety Data Sheet (SDS), Canada

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.