

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations


Printing date: July 9, 2018

Revision: July 9, 2018

1 Identification

- **Product identifier**
- **Trade name:** Microtreat Bio™
- **Other means of identification:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Membrane Cleaner
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
King Lee Technologies
8949 Kenamar Drive. Bldg 107
San Diego, CA 92121
858-693-4062
klt@kingleetech.com
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Acute Tox. 3 H331 Toxic if inhaled.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT RE 1 H372 Causes damage to the respiratory system through prolonged or repeated exposure.
Route of exposure: Inhalation.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

GHS06 GHS07 GHS08
- **Signal word:** Danger
- **Hazard statements:**
H331 Toxic if inhaled.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
- **Precautionary statements:**
P260 Do not breathe mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

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- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection.
- P302+P352 If on skin: Wash with plenty of soap and water.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P311 Call a poison center/doctor.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

Trade Secret Triazine derivative	<20%
<ul style="list-style-type: none"> Acute Tox. 2, H330 STOT RE 1, H372 Acute Tox. 4, H302; Eye Irrit. 2A, H319; Skin Sens. 1, H317 	

· **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air.
Provide oxygen treatment if affected person has difficulty breathing.
Seek medical help for symptoms or if unconscious.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.
If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact:**

Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Breathing difficulty

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Coughing
Dizziness
Allergic reactions
Causes eye irritation.
Gastric or intestinal disorders when ingested.
Causes mild skin irritation.
Nausea

· Danger:

May cause damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.

Danger of impaired breathing.

Toxic if inhaled.

May be harmful if swallowed.

· Indication of any immediate medical attention and special treatment needed:

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Later observation for pneumonia and pulmonary edema.

Contains triazine derivatives. May produce an allergic reaction. In cases of irritation to the lungs, initial treatment with corticosteroid inhalants.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

· Extinguishing media**· Suitable extinguishing agents:**

The product is not flammable.

Use fire fighting measures that suit the environment.

· For safety reasons unsuitable extinguishing agents: No relevant information available.**· Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

· Advice for firefighters**· Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information: Cool endangered product with water spray.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Isolate area and prevent access.

· Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Methods and material for containment and cleaning up

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Towel or mop up material and collect in a suitable container.
For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.
Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling**Precautions for safe handling:**

Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
Avoid contact with the eyes and skin.
Avoid breathing mist, vapors, or spray.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities**Requirements to be met by storerooms and receptacles:**

Avoid storage near extreme heat.
Store in cool, dry conditions in well sealed receptacles.

Information about storage in one common storage facility:

Store away from foodstuffs.
Do not store together with acids.
Store away from oxidizing agents.

Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

Control parameters**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Exposure controls**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

Engineering controls: Provide adequate ventilation.

Breathing equipment:

NIOSH or EU approved mist respirator is recommended in areas where general ventilation is poor.

Protection of hands:

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Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

Fluorocarbon rubber (Viton)

Butyl rubber, BR

Laminated film gloves.

· **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment**

No relevant information available.

· **Risk management measures** No relevant information available.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **Appearance:**

· Form:	Liquid
· Color:	Clear, yellow to light brown.
· Odor:	Characteristic Not determined.

· **Odor threshold:**

· **pH-value:** 10.2±1.5 (1% solution)

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** >100 °C (>212 °F)

· **Flash point:** The product is not flammable.

· **Flammability (solid, gaseous):** Not applicable.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits**

· **Lower:** Not determined.

· **Upper:** Not determined.

· **Oxidizing properties:** Not determined.

· **Vapor pressure:** Not determined.

· **Density:**

· **Relative density:** 1.03±0.03

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Vapor density: Not determined.
Evaporation rate: Not determined.

· **Solubility in / Miscibility with Water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity**
Dynamic: Not determined.
Kinematic: Not determined.
 · **Other information** No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
 No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
 Contact with acids releases toxic gases.
 Reacts with many consumer products, releasing chlorine or chlorine oxide gas.
 Reacts with strong oxidizing agents.
 Reacts with certain acids.
- **Conditions to avoid**
 Avoid acids.
 Excessive heat.
- **Incompatible materials** Strong acids
- **Hazardous decomposition products**
 Under fire conditions only:
 Chlorine
 Chlorine compounds
 Nitrogen oxides
 Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
 Toxic if inhaled.
 May be harmful if swallowed.

· **LD/LC50 values that are relevant for classification:**

Trade Secret Triazine derivative

Oral	LD50	750-1250 mg/kg (rat)
Inhalative	LC50/4h (dynamic)	0.37 mg/l (rat)

- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.

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- **On the eye:** Irritating effect.
- **Sensitization:**
Contains Triazine derivative. May produce an allergic reaction.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

· **Probable route(s) of exposure:**

- Ingestion.
- Inhalation.
- Eye contact.
- Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:**
Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:**
The user of this material has the responsibility to dispose of unused material, residues and containers in
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compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, ADR, IMDG, IATA	UN2810
· UN proper shipping name	
· DOT	Toxic, liquids, organic, n.o.s. (Triazine derivative)
· ADR, IMDG	TOXIC LIQUID, ORGANIC, N.O.S. (Triazine derivative)
· IATA	Toxic, liquid, organic, n.o.s. (Triazine derivative)
· Transport hazard class(es)	
· DOT	
	
· Class	6.1
· Label	6.1
· ADR	
	
· Class	6.1 (T1)
· Label	6.1
· IMDG, IATA	
	
· Class	6.1
· Label	6.1
· Packing group	
· DOT, ADR, IMDG, IATA	III
· Environmental hazards	
· Marine pollutant:	No
· Special precautions for user	Warning: Toxic substances
· Danger code (Kemler):	60
· EMS Number:	F-A,S-A

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· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
 · **United States (USA)**
 · **SARA**

· **Section 302 (extremely hazardous substances):**
 None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**
 None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**
 None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act)**
 All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**
 None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for females:**
 None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for males:**
 None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**
 None of the ingredients are listed.

· **EPA (Environmental Protection Agency):**
 None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**
 None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL) (Substances not listed.):**
 All ingredients are listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation

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IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bio-accumulable, Toxic
vPvB: very Persistent and very Bioaccumulative
OSHA: Occupational Safety & Health Administration
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Sources

Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor-internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
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Safety Data Sheets, Individual Manufacturers

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