

Safety Data Sheet

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

Revision: September 9, 2020

1 Identification

- **Product identifier**
- **Trade name:** BioFlo Eco 100
- **Other means of identification:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Industrial uses.
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
BioFlo Technologies LLC
200 Crandon Blvd, Suite 316
Key Biscayne, FL 33149
+1 (305) 735-9991
info@bioflo-tech.com
- **Emergency telephone number:**
CHEMTREC
+1 (800) 424-9300 (North America)
+1 (703) 527-3887 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 4 H227 Combustible liquid.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS08

- **Signal word:** Danger
- **Hazard statements:**
H227 Combustible liquid.
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements:**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261	Avoid breathing mist, vapors, or spray.
P264	Wash thoroughly after handling.
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.
P301+P310	If swallowed: Immediately call a poison center/doctor.
P331	Do NOT induce vomiting.
P302+P352	If on skin: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

(Cont'd. on page 2)

Safety Data Sheet

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

Revision: September 9, 2020

Trade name: BioFlo Eco 100

(Cont'd. of page 1)

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a poison center/doctor if you feel unwell.
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 foam, powder, or carbon dioxide for extinction.
P403+P235 Store in a well-ventilated place. Keep cool.
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:**

		0-100%
		0-100%
		0-100%
		0-100%
		0-100%
		0-100%
		0-100%

· **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; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

· **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. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

A person vomiting while lying on their back should be turned onto their side.

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

(Cont'd. on page 3)

Safety Data Sheet

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

Revision: September 9, 2020

Trade name: BioFlo Eco 100

(Cont'd. of page 2)

Coughing
Breathing difficulty
Nausea in case of ingestion.
Gastric or intestinal disorders when ingested.

· **Danger:**

May be fatal if swallowed and enters airways.
Danger of pulmonary edema.
Danger of impaired breathing.
Danger of convulsion.
Danger of disturbed cardiac rhythm.

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

If swallowed, gastric irrigation with added, activated carbon.
If swallowed or in case of vomiting, danger of entering the lungs.
Medical supervision for at least 48 hours.
If necessary oxygen respiration treatment.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** In case of fire: Use foam, powder, or carbon dioxide for extinction.

· **For safety reasons unsuitable extinguishing agents:** Water stream.

· **Special hazards arising from the substance or mixture**

Combustible liquid.

Product does not support sustained combustion.

Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information:**

Eliminate all ignition sources if safe to do so.

Cool endangered containers with water fog.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

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

Use personal protective equipment as required.

Ensure adequate ventilation.

Keep away from ignition sources.

· **Environmental precautions**

Avoid release to the environment.

Inform respective authorities in case of seepage into water course or sewage system.

· **Methods and material for containment and cleaning up**

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).

Send for recovery or disposal in suitable receptacles.

· **Reference to other sections**

See Section 7 for information on safe handling.

(Cont'd. on page 4)

Safety Data Sheet

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

Revision: September 9, 2020

Trade name: BioFlo Eco 100

(Cont'd. of page 3)

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.

Keep out of reach of children.

· Information about protection against explosions and fires:

Combustible liquid.

Keep ignition sources away - Do not smoke.

· Conditions for safe storage, including any incompatibilities

· Requirements to be met by storerooms and receptacles:

Store in cool, dry conditions in well sealed receptacles.

Avoid storage near extreme heat, ignition sources or open flame.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

· Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

· 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:

EL (Canada)	Long-term value: 200 mg/m ³ Skin
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· 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: No relevant information available.

· Breathing equipment:

Use suitable respiratory protective device in case of insufficient ventilation.

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

· Protection of hands:

(Cont'd. on page 5)

Safety Data Sheet

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

Revision: September 9, 2020

Trade name: BioFlo Eco 100

(Cont'd. of page 4)



Protective gloves

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

· **Eye protection:**



Safety glasses

· **Body protection:**

Solvent resistant protective clothing
Protective work clothing

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

Avoid release to the environment.

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

9 Physical and chemical properties

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

· **Appearance:**

Form: Liquid

Color: Clear

· **Odor:** Petroleum-like

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

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

· **Boiling point/Boiling range:** 193.3 °C (379.9 °F)

· **Flash point:** 63 °C (145.4 °F)
Product does not support sustained combustion.

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

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

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Not determined.

· **Explosion limits**

Lower: Not determined.

Upper: Not determined.

· **Oxidizing properties:** Non-oxidizing.

· **Vapor pressure:** Not determined.

· **Density:**

Relative density: 0.804

Vapor density: Not determined.

Evaporation rate: Not determined.

(Cont'd. on page 6)

Safety Data Sheet

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

Revision: September 9, 2020

Trade name: BioFlo Eco 100

(Cont'd. of page 5)

- **Solubility in / Miscibility with Water:** Insoluble.
- **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:**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Combustible liquid.
Reacts with strong oxidizing agents.
Used empty containers may contain product gases which form explosive mixtures with air.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid**
Keep ignition sources away - Do not smoke.
Store away from oxidizing agents.
- **Incompatible materials** Oxidizing agents.
- **Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

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

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)

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

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

None of the ingredients are listed.

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

(Cont'd. on page 7)

Safety Data Sheet

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

Revision: September 9, 2020

Trade name: BioFlo Eco 100

(Cont'd. of page 6)

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:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** May be fatal if swallowed and enters airways.

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.
- **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 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.

14 Transport information

- **UN-Number**
- **DOT, ADR/RID/ADN, IMDG, IATA** Not regulated.
- **UN proper shipping name**
- **DOT, ADR/RID/ADN, IMDG, IATA** Not regulated.
- **Transport hazard class(es)**
- **DOT, ADR/RID/ADN, IMDG, IATA**
- **Class** Not regulated.

(Cont'd. on page 8)

Safety Data Sheet

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

Revision: September 9, 2020

Trade name: BioFlo Eco 100

(Cont'd. of page 7)

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|--|--|
| · Packing group | |
| · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · Environmental hazards | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT | Product does not support sustained combustion. |

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 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed or exempt.

· **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):**

All ingredients are listed or exempt.

(Cont'd. on page 9)

Safety Data Sheet

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

Revision: September 9, 2020

Trade name: BioFlo Eco 100

(Cont'd. of page 8)

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

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

OSHA: Occupational Safety & Health Administration

Flam. Liq. 4: Flammable liquids – Category 4

Asp. Tox. 1: Aspiration hazard – 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

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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