

## Safety Data Sheet

Issue date: 07/22/2022

v 1

Last Revision Date: 07/22/2022

## 1 Identification

- **Product identifier**

- **Trade name:** EcoFuel FBC Fuel Treatment

- **Part number:** 00200-F002, 00200-F008, 00200-F032, 00200-G001, 00200-G2.5 , 00200-G055, 00200-G275, 00200-G330

- **Application of the substance / the mixture** Fuel Additive

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

- Energy Technology Group LLC
    - 1660 Kensington Avenue, Unit 6
    - Cheektowaga NY 14215
    - (716) 240-4989

- **email of person responsible:** amousa@etgpro.com

- **Emergency telephone number:**

- CHEMTREC International +1 (703) 527-3887 (outside the US), 1-800-424-9300 (in the US) 24 hr

## 2 Hazard identification

- **Classification of the substance or mixture**

Flammable Liquids - Category 4	H227 Combustible liquid.
Acute Toxicity (Oral) - Category 4	H302 Harmful if swallowed.
Acute Toxicity (Inhalation) - Category 4	H332 Harmful if inhaled.
Skin Irritation - Category 2	H315 Causes skin irritation.
Eye Irritation - Category 2A	H319 Causes serious eye irritation.

- **Label elements**

- **GHS label elements**

- The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



- **Signal word** Warning

- **Hazard-determining components of labeling:**

- 2-butoxyethanol

- **Hazard statements**

- Combustible liquid.
    - Harmful if swallowed.
    - Harmful if inhaled.
    - Causes skin irritation.
    - Causes serious eye irritation.

- **Precautionary statements**

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
    - Avoid breathing fume/spray.

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Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place.

Dispose of contents in accordance with local regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

HEALTH 2

Health = 2

FIRE 2

Fire = 2

REACTIVITY 0

Reactivity = 0

### 3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Chemical components:**

111-76-2	2-butoxyethanol	50-100% WT/WT
104-76-7	2-Ethyl-1-hexanol	< 2.5 % WT/WT
112-80-1	oleic acid, pure	< 2.5 % WT/WT

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Rinse cautiously with water. Remove contact lenses, if present and easy to do. Get medical attention if eye irritation develops or persists.

· **After swallowing:** If symptoms persist consult doctor.

· **Information for doctor:** Treat Symptomatically

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- **Most important symptoms and effects, both acute and delayed**  
Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.  
See section 11.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
  - **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** See section 10 for additional information.
- **Advice for firefighters**
  - **Protective equipment:**  
Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Do not use a water jet.

**6 Accidental release measures**

- **Environmental precautions:**  
Dilute with plenty of water.  
Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
  - **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
  - **Storage:**
    - **Requirements to be met by storerooms and receptacles:**  
See section 10 for incompatible materials.
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:** Keep receptacle tightly sealed.

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- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/ Personal protection

- **Control parameters**

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

- 111-76-2 2-butoxyethanol (97.0%)**

- EL TWA: 20 ppm

- EV TWA: 20 ppm

- Skin

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.

- Immediately remove all soiled and contaminated clothing.

- Avoid contact with the eyes and skin.

- **Breathing equipment:**

- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Chemical resistant protective gloves

- **Eye protection:**



Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.

## 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

- **Form:**

Oily

- **Color:**

Amber colored

- **Odor:**

Characteristic

- **Odor threshold:**

Not determined.

- **pH-value:**

Not determined.

- **Change in condition**

- **Melting point/Melting range:**

-70.4 °C

- **Boiling point/Boiling range:**

171 °C

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· Flash point:	65 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	240 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Not determined.
· Explosion limits:	
· Lower:	1.1 Vol %
· Upper:	10.6 Vol %
· Vapor pressure at 20 °C:	1.2 hPa
· Density at 20 °C:	0.9 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water at 20 °C:	1 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic at 20 °C:	6.4 mPas
· Kinematic:	Not determined.
· Solvent separation test	
· VOC content:	98.00 %
· Other information	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:**  
Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Heat, open flames, sparks.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** May include, and are not limited to: oxides of carbon.

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**11 Toxicological information**

## · Information on toxicological effects

## · Acute toxicity:

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

**ATE (Acute Toxicity Estimate)**

Oral	LD50	1,237 mg/kg
Dermal	LD50	2,041 mg/kg
Inhalative	LC50/4 h (vapor)	11.9 mg/L (gpg)

**111-76-2 2-butoxyethanol**

Oral	LD50	1,200 mg/kg (ATE) 1,414 mg/kg (gpg)
Dermal	LD50	2,000 mg/kg (gpg)
Inhalative	LC50/4 h (vapor)	11.5 mg/L (gpg)

**104-76-7 2-Ethyl-1-hexanol**

Oral	LD50	2,049 mg/kg (rat)
Dermal	LD50	1,970 mg/kg (rabbit)

**112-80-1 oleic acid, pure**

Oral	LD50	74,000 mg/kg (rat)
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## · Primary irritant effect:

- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.

## · Sensitization: No sensitizing effects known.

## · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful  
Irritant

## · Carcinogenic categories

## · IARC (International Agency for Research on Cancer)

111-76-2	2-butoxyethanol	3
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## · NTP (National Toxicology Program)

None of the ingredients is listed.

## · OSHA-Ca (Occupational Safety &amp; Health Administration)

None of the ingredients is listed.

**12 Ecological information**

## · Toxicity

## · Aquatic toxicity:

**112-80-1 oleic acid, pure**

LC50 (96 h)	205 mg/L (fish)
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## · Persistence and degradability No further relevant information available.

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## · Behavior in environmental systems:

## · Bioaccumulative potential

**112-80-1 oleic acid, pure**

Bioaccumulation 7.73 (-) (potential high)

· **Mobility in soil** No further relevant information available.

## · Additional ecological information:

## · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

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

## · Results of PBT and vPvB assessment

· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects** No further relevant information available.**13 Disposal considerations**

## · Waste treatment methods

## · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

## · 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/TDG, ADR, IMDG, IATA

Not Regulated

## · UN proper shipping name

· DOT/TDG, ADR, IMDG, IATA

Not Regulated

## · Transport hazard class(es)

· DOT, IMDG, IATA

· Class

Not Regulated

## · Packing group

· DOT/TDG, ADR, IMDG, IATA

Not Regulated

## · Environmental hazards:

Not applicable.

## · Special precautions for user

Not applicable.

## · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

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· **UN "Model Regulation":** Not Regulated**15 Regulatory information**· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

No REACH Annex XVII restrictions  
 Contains no REACH candidate substance

· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

111-76-2 | 2-butoxyethanol

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

All components have the value ACTIVE.

· **Canadian substance listings:**· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Non-Domestic Substances List (NDSL)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

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.

· **Contact:** Engineering Department· **Date of the latest revision of the safety data sheet** 07/22/2022 / -· **Issue Date** 07/22/2022· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 OSHA: Occupational Safety & Health