



ENVIROBLU SOLUTIONS INC.

Safety Data Sheet EnviroBlu Solutions

SECTION 1: Identification

1.1 GHS Product identifier

Product name EnviroBlu Solutions
Product number EBF-1, EBF-4, EBF-20, EBF-205, EBF-1000

1.3 Recommended use of the chemical and restrictions on use

Industrial strength general cleaner/degreaser, certified by Health Canada for Food Plant Use.

1.4 Supplier's details

Name Enviroblu Solutions Inc.
Address PO Box 29061
St. John's NL A1A 5B5
Canada
Telephone 1-844-880-2583
email Email: joseph@enviroblu.ca www.enviroblu.co

1.5 Emergency phone number

For Medical or Transport Emergencies/
Pour les urgences médicales ou de transport
CANUTEC (24 Hours/Heures)
(613) 996-6666 or *666 (cellular)

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: WHMIS 2015

- Acute toxicity, inhalation, Cat. 5
- Skin corrosion/irritation, Cat. 2
- Skin sensitizer, Cat. 1
- Serious eye damage/eye irritation, Cat. 2A

2.2 GHS label elements, including precautionary statements

Pictograms

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1. Exclamation mark

Signal word

Warning

Hazard statement(s)

H315
H317
H333
H319

Causes skin irritation
May cause an allergic skin reaction
May be harmful if inhaled
Causes serious eye irritation

Precautionary statement(s)

P261
P264
P272
P280
P302+P352
P304+P312
P321
P332+P313
P333+P313
P362+P364
P501
P305+P351+P338

P337+P313

Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash ... thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN: Wash with plenty of water/...
IF INHALED: Call a POISON CENTER/doctor/... if you feel unwell.
Specific treatment (see ... on this label).
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Dispose of contents/container to ...
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Concentration
Diethylene glycol butyl ether (CAS no.: 112-34-5; EC no.: 203-961-6; Index no.: 603-096-00-8) CLASSIFICATIONS: Acute toxicity, dermal, Cat. 5; Acute toxicity, oral, Cat. 5; Serious eye damage/eye irritation, Cat. 2A. HAZARDS: H303 - May be harmful if swallowed; H313 - May be harmful in contact with skin; H319 - Causes serious eye irritation.	5 - 10 % (weight)
Butoxyethanol (CAS no.: 111-76-2; EC no.: 203-905-0; Index no.: 603-014-00-0) CLASSIFICATIONS: Flammable liquids, Cat. 4; Acute toxicity, dermal, Cat. 4; Acute toxicity, inhalation, Cat. 4; Acute toxicity, oral, Cat. 4; Skin corrosion/irritation, Cat. 2; Serious eye damage/eye irritation, Cat. 2. HAZARDS: H227 - Combustible liquid; H302 - Harmful if swallowed; H312 - Harmful in contact with skin; H315 - Causes skin irritation; H319 - Causes serious eye irritation; H332 - Harmful if inhaled. [SCLs/M-factors/ATEs]: Oral: ATE = 1200 mg/kg	1 - 5 % (weight)
D-Limonene (CAS no.: 5989-27-5; EC no.: 227-813-5) CLASSIFICATIONS: Aspiration hazard, Cat. 1; Flammable liquids, Cat. 3; Hazardous to the aquatic environment, short-term (acute), Cat. 1; Hazardous to the aquatic environment, long-term (chronic), Cat. 1; Skin sensitizer, Cat. 1; Skin corrosion/irritation, Cat. 2. HAZARDS: 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; H400 - Very toxic to aquatic life; H410 - Very toxic to aquatic life with long lasting effects.	1 - 5 % (weight)

SECTION 4: First-aid measures

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4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled	If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet, and get medical attention
In case of skin contact	Immediately flush skin with lots of running water for at least 20 minutes. Remove contaminated clothing and shoes. Wash before reuse. Get medical attention if symptoms occur.
In case of eye contact	Rinse thoroughly with plenty of water for at least 20 minutes. Lift the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if symptoms occur.
If swallowed	If material has been swallowed and the exposed person is conscious, rinse mouth with water and give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If unconscious, place in recovery position and get medical attention immediately. Consult a physician.
Personal protective equipment for first-aid responders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms/effects, acute and delayed

Eye contact : Causes serious eye irritation
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

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Not considered a fire hazard. Use extinguishing media appropriate for surrounding fire.

5.2 Specific hazards arising from the chemical

No specific fire or explosion hazard.

D-Limonene: Carbon oxides

5.3 Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Further information

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training. Wear appropriate respirator when ventilation is inadequate. Avoid breathing gas, mist, vapors, spray. Evacuate personnel to safe areas. Put on appropriate personal protective equipment.

For personal protection see section 8.

For emergency personnel:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Not Applicable

6.2 Environmental precautions

N/A

6.3 Methods and materials for containment and cleaning up

SMALL SPILLS:

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

LARGE SPILLS:

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Reference to other sections

Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7: Handling and storage

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7.1 Precautions for safe handling

Put on appropriate personal equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Keep in original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials(see Section 10) and food and drink. Do not store under freezing conditions or above 49 C (120 F). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Keep out of reach from children.

Specific end use(s)

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Butoxyethanol (CAS: 111-76-2)

TWA (Inhalation): 10 ppm (CA/CCOHS)
CA Ontario Provincial (Canada, 7/2015)

2. 2-Butoxyethanol (CAS: 111-76-2 EC: 203-905-0)

IOELV (Inhalation): 20 ppm, 97 mg/m³ (CA/CCOHS)
CA Alberta Provincial (Canada, 4/2009)

TWA (Inhalation): 20 ppm 8 hours (CA/CCOHS)
CA British Columbia Provincial (Canada, 7/2016)

TWA (Inhalation): 20 ppm 8 hours (CA/CCOHS)
CA Ontario Provincial (Canada, 7/2015).

PEL (Inhalation): 20 ppm, 97 mg/m³ (CA/CCOHS)
CA Quebec Provincial (Canada, 1/2014)

STEL (Inhalation): 30 ppm 15 minutes (CA/CCOHS)
CA Saskatchewan Provincial (Canada, 7/2013).

TWA (Inhalation): 20 ppm 8 hours (CA/CCOHS)
CA Saskatchewan Provincial (Canada, 7/2013).

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Provide local exhaust or general dilution ventilation to keep exposure to airborne contaminants below the permissible exposure limits where mists or vapors may be generated.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

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Skin protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Dust mask or Respirator should be worn if product is used in confined space or used for a prolonged period of time. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

Appearance, such as physical state and colour	Blue Liquid (clear)
Odour	Citrus
Odour threshold	Not available
pH	8.5 - 9
Melting point and freezing point	0°C (32°F)
Initial boiling point and boiling range	>110°C (>230°F)
Flash point	None
Evaporation rate	0.3 (Butyl acetate = 1)
Flammability, in the case of solids and gases	Not available
Upper and lower flammability or explosive limits	LEL=N/A UEL=N/A
Vapour pressure	<2.7 kPa (<20 mm Hg) [room temperature]
Vapour density	1.15 [Air = 1]
Relative density	1.04
Solubility	100% Soluble
Partition coefficient — n-octanol/water	N/D
Auto-ignition temperature	N/D
Decomposition temperature	N/D
Viscosity	Thin Liquid
Additional properties	
Colour	Blue
Explosive properties	None
Oxidising properties	None

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

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Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

None under normal use conditions.

10.5 Incompatible materials

Reactive or incompatible with the following materials: strong oxidizers and acids.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

2-(2-Butoxyethoxy)ethanol

LD50 Dermal Rabbit 2700 mg/kg

LD50 Oral Rat 4500 mg/kg

2-Butoxyethanol

LD50 Oral Rat 917 mg/kg

(R)-p-mentha-1,8-diene

LD50 Dermal Rabbit >5000 mg/kg

LD50 Oral Rat 4400 mg/kg

Skin corrosion/irritation

Acute and delayed symptoms and effects:

May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

2-(2-Butoxyethoxy)ethanol

Eyes - Moderate irritant Rabbit - 24 hours 20 mg

Eyes - Severe irritant Rabbit - 20 mg

2-Butoxyethanol

Eyes - Moderate irritant Rabbit - 24 hours 100 mg

Eyes - Severe irritant Rabbit - 100 mg

Skin - Mild irritant Rabbit - 500 mg

(R)-p-mentha-1,8-diene

Skin - Mild irritant Rabbit - 24 hours 10%

Serious eye damage/irritation

Acute and delayed symptoms and effects:

Can cause severe irritation, redness, tearing, blurred vision.

Respiratory or skin sensitization

Acute and delayed symptoms and effects:

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Breathing of dust or mist can cause mild to severe irritation of nasal or respiratory passage.
Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis.

Germ cell mutagenicity

No data available

Carcinogenicity

Carcinogenicity:

Diethylene glycol butyl ether

Result: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

2-Butoxyethanol

Result: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No known significant effects or critical hazards.

Specific target organ toxicity (STOT) - single exposure

Primary route of entry: A) Skin B) Inhalation

Specific target organ toxicity (STOT) - repeated exposure

Pre-existing skin, eye and respiratory disorders may be aggravated by exposure to product.

Aspiration hazard

May be harmful if swallowed and enters airways.

SECTION 12: Ecological information

Toxicity

2-(2-Butoxyethoxy)ethanol

Acute LC50 1300000 µg/L

Fresh water Fish - Lepomis macrochirus 96 hours

2-Butoxyethanol

Acute EC50 >1000 mg/L

Fresh water Daphnia - Daphnia magna 48 hours

Acute LC50 800000 µg/L

Marine water Crustaceans - Crangon crangon 48 hours

Acute LC50 1250000 µg/L

Marine water Fish - Menidia beryllina 96 hours

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(R)-p-mentha-1,8-diene

Acute EC50 421 µg/L Fresh water Daphnia - Daphnia magna 48 hours

Acute EC50 688 µg/L Fresh water Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) 96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

2-(2-Butoxyethoxy)ethanol	LogP=1	BCF=nil	Potential-low	
2-Butoxyethanol		LogP=0.81	BCF=nil	Potential-low
(R)-p-mentha-1,8-diene	LogP=4.38	BCF=nil	Potential-high	

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Dispose of contents/ container in accordance with the local/regional/national/international regulations. Dispose of empty bottle in the trash or recycle where facilities exist. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

SECTION 14: Transport information

14.1	UN Number	None
14.2	UN Proper Shipping Name	None
14.3	Transport hazard class(es)	None
14.4	Packing group	None
14.5	Environmental hazards	None
14.6	Special precautions for user	None
14.7	Transport in bulk according to IMO instruments	None

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Canada Inventory

All components are listed or exempted.

CANADA

WHMIS (Canada): This product has been classified according to the hazard criteria of the HPR and the SDS contains all information required by the HPR.

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CEPA Toxic substances

The following components are listed: 2-Butoxyethanol

Canadian NPRI

The following components are listed: (R)-p-mentha-1,8-diene; 2-(2-Butoxyethoxy) ethanol; 2-Butoxyethanol

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ethylene glycol monobutyl ether

CAS: 111-76-2

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

2-(2-Butoxyethoxy)ethanol

CAS-No. 112-34-5

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SECTION 16: Other information

16.1 Further information/disclaimer

These SDS are written in an effort to provide information to the worker in the workplace and in such a way it can be understood. To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

16.2 Preparation information

Prepared by Craig Gourley
for EnviroBlu Solutions