SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: **Mechanic in a Bottle**

Product Code(s) : None reported.

Recommended use of the chemical and restrictions on use

: Fuel system treatment

Chemical family : Glycol ethers

Name, address, and telephone number of the supplier:

B3C Fuel Solutions LLC

108 Daytona Road
Conway, SC, USA
29526

Supplier's Telephone # : (843) 655-1910

Name, address, and telephone number of the manufacturer:

Refer to supplier

24 Hr. Emergency Tel # : INFOTRAC - (800) 535-5053 (Within Continental US); (352) 323-3500 (Outside US)

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear, light tan liquid. Petroleum solvent odor.

Most important hazards:
OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012).
Hazardous classification:
- Flammable liquid - Category 4
- Acute toxicity (Oral; Inhalation) - Category 3
- Acute toxicity (Dermal) - Category 4
- Skin irritation - Category 2
- Eye irritation - Category 2A

WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). WHMIS classification:
- Class B3 (Combustible Liquids)
- Class D1A (Materials Causing Immediate and Serious Toxic Effects, Very Toxic Material)
- Class D2B (Materials Causing Other Toxic Effects, Toxic Material)

Label elements

The following label information is applicable only to the United States according to OSHA Regulations (29 CFR 1910.1200) (Hazcom 2012):

Signal Word

DANGER!

Hazard statement(s)

- Combustible liquid.
- Toxic if swallowed.
- Toxic if inhaled.
- Harmful in contact with skin.
- Causes skin irritation.
- Causes serious eye irritation.

SAFETY DATA SHEET

Precautionary statement(s)

Keep away from heat, open flames and hot surfaces. - No smoking.
Wear protective gloves/clothing and eye/face protection.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid breathing vapors or mists.
Use only outdoors or in a well-ventilated area.

IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water.
Take off contaminated clothing and wash it before reuse.
Call a POISON CENTER or doctor/physician if you feel unwell.
If skin irritation occurs, get medical advice/attention.
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.

Store in a well-ventilated place. Keep cool.
Keep container tightly closed.
Store locked up.

Dispose of contents/container in accordance with local regulation.

The following label information is applicable only to Canada according to the Canadian Controlled Products Regulations (CPR/WHMIS):

DANGER! Combustible liquid and vapour. May be fatal if inhaled or swallowed. Harmful in contact with skin. May cause moderate to severe skin and eye irritation.

PRECAUTIONS: Use only in well-ventilated areas. Wear suitable protective equipment during handling. Do not ingest. Do not breathe vapours or spray mist. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks, and open flames. Avoid contact with incompatible materials. Keep containers closed when not in use. Wash thoroughly after handling. Store in a cool, dry, well ventilated area.

FIRST AID: If swallowed, DO NOT induce vomiting. Call a physician or poison control centre immediately. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE or doctor/physician. For skin contact, flush with water for at least 15 minutes, while removing contaminated clothing. When symptoms persist or in all cases of doubt seek medical advice. For eye contact, flush with running water for at least 15 minutes. Remove contact lenses if present and easy to do. If irritation persists, seek prompt medical attention.

Refer To Material Safety Data Sheet for further information.

Other hazards

SAFETY DATA SHEET

Other hazards which do not result in classification: Burning produces obnoxious and toxic fumes. May form peroxides when in contact with air and light. Ingestion may cause irritation of the mouth, throat and stomach. Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.

Environmental precautions: Avoid release to the environment. See ECOLOGICAL INFORMATION, Section 12.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS #	Concentration
2-butoxyethanol	111-76-2	(+ -) 70-95%

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

Ingestion : Seek immediate medical attention/advice. Do not induce vomiting, unless directed to do so by qualified medical personnel. Never give anything by mouth to an unconscious person.

Inhalation : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get medical attention.

Skin contact : Remove/Take off immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

Eye contact : Immediately flush eyes with plenty of water for at least 15 minutes. If irritation or symptoms develop, seek medical attention.

Most important symptoms and effects, both acute and delayed

: Toxic if swallowed.
Toxic if inhaled.
Harmful in contact with skin.
Causes skin irritation.
Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed

: Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

: Dry chemical, foam, carbon dioxide and water fog.

Unsuitable extinguishing media

: Do not use water jet, as this may spread burning material.

Special hazards arising from the substance or mixture / Conditions of flammability

: Combustible liquid and vapor. Product may ignite when exposed to heat, sparks and direct flame. Vapours are heavier than air, and may travel or be moved along the ground to an ignition source at locations distant from material handling. Can accumulate in a confined space creating a toxicity hazard. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

Flammability classification (OSHA 29 CFR 1910.106)

: Flammable liquid - Category 4

Explosion Data: Sensitivity to Mechanical Impact / Static Discharge:

: Not expected to be sensitive to mechanical impact or static discharge.

Hazardous combustion products

: Carbon oxides; irritating fumes and smoke.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

SAFETY DATA SHEET

Special fire-fighting procedures

: Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

: All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

Methods and material for containment and cleaning up

: Ventilate area of release. Remove all sources of ignition. Use only non-sparking tools and equipment in the clean-up process. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.

Special spill response procedures

: In case of a transportation accident, in the United States contact CHEMTREC at 1-800-424-9300 or International at 1-703-527-3887. If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).
US CERCLA Reportable quantity (RQ): None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

: Use in a well-ventilated area. Wear suitable protective equipment during handling. Do not ingest. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks, and open flames. Wash hands thoroughly after handling. Avoid contact with incompatible materials. Do not eat, drink or smoke when using this product.

Conditions for safe storage : Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Incompatible materials : Strong oxidizing agents; Acids; Bases.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
2-butoxyethanol	20 ppm	N/Av	50 ppm ; 240 mg/m³	N/Av

Exposure controls

Ventilation and engineering measures

: Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Respiratory protection : Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Confirmation of which type of respirator is most suitable for the intended application should be obtained from respiratory protection suppliers.

SAFETY DATA SHEET

Skin protection	:	Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers. The following glove material(s) are recommended: Butyl rubber; Barrier; Viton; Tychem; Nitrile rubber; Silver Shield™. The following glove material(s) are not recommended: Natural Rubber; Neoprene; Polyvinylchloride; polyvinyl alcohol.
Eye / face protection	:	Chemical splash goggles are recommended. A full face shield may also be necessary.
Other protective equipment	:	Wear resistant clothing and boots. Other equipment may be required depending on workplace standards. An eyewash station and safety shower should be made available in the immediate working area.
General hygiene considerations	:	Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove and wash contaminated clothing before re-use. Do not take contaminated clothing home.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Clear, light tan liquid.
Odour	:	Petroleum solvent odor.
Odour threshold	:	No information available.
pH	:	No information available.
Melting/Freezing point	:	-75°C / -103°F
Initial boiling point and boiling range	:	157 - 197°C / 315 - 387°F
Flash point	:	>60.5°C / >141°F
Flashpoint (Method)	:	closed cup
Evaporation rate (BuAe = 1)	:	0.8
Flammability (solid, gas)	:	Not applicable.
Lower flammable limit (% by vol.)	:	1.1%
Upper flammable limit (% by vol.)	:	10.1%
Oxidizing properties	:	None known.
Explosive properties	:	Not explosive
Vapour pressure	:	1.0 mm Hg
Vapour density	:	4.1
Relative density / Specific gravity	:	0.94
Solubility in water	:	soluble
Other solubility(ies)	:	Soluble in all proportions in ethanol, benzene, other alcohols, chloroform, diethyl ether, other ethers, esters, ketones and most organic solvents.
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution	:	No information available.
Auto-ignition temperature	:	238°C / 460°F
Decomposition temperature	:	No information available.
Viscosity	:	No information available.
Volatiles (% by weight)	:	90
Volatile organic Compounds (VOC's)	:	No information available.
Absolute pressure of container	:	Not applicable.

SAFETY DATA SHEET

Flame projection length : Not applicable.

Other physical/chemical comments

: No additional information.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.

Chemical stability : Stable under the recommended storage and handling conditions prescribed. May form explosive peroxides during prolonged exposure to air and heat. Direct sunlight or heat may accelerate the release of peroxides.

Possibility of hazardous reactions

: Hazardous polymerization will not occur.

Conditions to avoid : Avoid heat and open flame. Keep away from direct sunlight. Ensure adequate ventilation, especially in confined areas.

Incompatible materials : Strong oxidizing agents; Acids; Bases.

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES

Routes of entry skin & eye : YES

Routes of entry Ingestion : YES

Routes of exposure skin absorption

: YES

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

: Harmful or fatal if inhaled. May result in unconsciousness and possibly death.

Sign and symptoms ingestion

: Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea. May be fatal if very large amounts are swallowed. May be absorbed and cause symptoms similar to those for inhalation.

Sign and symptoms skin : May cause moderate to severe skin irritation. May be absorbed and cause symptoms similar to those for inhalation.

Sign and symptoms eyes : May cause moderate to severe irritation.

Potential Chronic Health Effects

: Prolonged or repeated contact may cause drying, cracking and defatting of the skin.

Mutagenicity : Not expected to be mutagenic in humans.

Carcinogenicity : Contains ethylene glycol monobutyl ether. Ethylene glycol monobutyl ether is classified as a confirmed animal carcinogen by ACGIH (Group A3).

Reproductive effects & Teratogenicity

: Not expected to be cause reproductive effects.

Senitization to material : Not expected to be a skin or respiratory sensitizer.

Specific target organ effects : Eyes, skin, respiratory system, digestive system, central nervous system.

Irritancy : Irritating to eyes and skin.

Medical conditions aggravated by overexposure

: Pre-existing skin, eye, respiratory and central nervous system disorders.

Synergistic materials : Not available.

SAFETY DATA SHEET

Toxicological data : See below for toxicological data on the substance.

Chemical name	LC_{50}(4hr) inh, rat	LD_{50} (Oral, rat)	LD_{50} (Rabbit, dermal)
2-butoxyethanol	450 ppm/4H (2.175 mg/L)	530 mg/kg	400 - 500 mg/kg

Other important toxicological hazards

: None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

Ingredients	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
2-butoxyethanol	111-76-2	Lepomis macrochirus: 1490 mg/L	Brachydanio: >100 mg/L	N/Ap

Ingredients	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
2-butoxyethanol	111-76-2	Daphnia magna (Water flea): 835 mg/L	Daphnia magna (Water flea): 100 mg/L	N/Ap

Ingredients	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
2-butoxyethanol	111-76-2	Green algae: 911 mg/L/72hr	Green algae: 286 mg/L/72hr	N/Ap

Persistence and degradability

: 2-Butoxyethanol is considered to be readily biodegradable (OECD).

Bioaccumulation potential : The log Kow value for 2-butoxyethanol is 0.8, and its bioconcentration factor (BCF) is 0.97.

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects

: The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle waste according to recommendations in Section 7. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not cut, weld, drill or grind on or near this container.

Methods of Disposal : Dispose of in accordance with federal, provincial and local hazardous waste laws.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SAFETY DATA SHEET

SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	NA1993	Combustible liquid, n.o.s. (Ethylene glycol monobutyl ether)	Combustible.	III	
49CFR/DOT Additional information	Not regulated for road or rail shipment if packaged in non-bulk containers (450 Litres or less each). The 'label' appearing here is the placard to be used for bulk shipments.				
TDG	None	Not regulated.	Not regulated	none	
TDG Additional information	None.				

Special precautions for user : Appropriate advice on safety must accompany the package. Keep away from heat, sparks and open flame. - No smoking.

Environmental hazards : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

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

: This information is not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
2-butoxyethanol	111-76-2	Yes	N/Ap	N/Av	No	N/Ap

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Acute Health Hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
2-butoxyethanol	111-76-2	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes

Canadian Information:

SAFETY DATA SHEET

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). See Section 2.
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

International Information:

Components listed below are present on the following International Inventory list:

Ingredients	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
2-butoxyethanol	111-76-2	203-905-0	Present	Present	(7)-97; (2)-407	KE-04134	Present	HSR001154

SECTION 16. OTHER INFORMATION

Legend :
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
DOT: Department of Transportation
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
Inh: Inhalation
MSHA: Mine Safety and Health Administration
N/Ap: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TPQ: Threshold Planning Quantity
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References :
1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2013.
2. International Agency for Research on Cancer Monographs, searched 2013.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases (Chempendium, HSDB and RTECs). (2013)
4. Material Safety Data Sheets from manufactuer.
5. US EPA Title III List of Lists - October 2012
6. California Proposition 65 List - 11 April 2013

Preparation Date (mm/dd/yyyy)

: 04/15/2013

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

SAFETY DATA SHEET

Prepared for: B3C Fuel Solutions LLC 108 Daytona Road Conway, SC, USA 29526 Telephone: 1-843-655-1910 Please direct all enquiries to B3C Fuel Solutions.	
Prepared by: ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.): (888) 977-4834 (Canada) http://www.thecompliancecenter.com	

DISCLAIMER

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by / obtained from B3C Fuel Solutions LLC and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and B3C Fuel Solutions LLC expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and B3C Fuel Solutions, LLC.

END OF DOCUMENT