



## Safety Data Sheet

Conforms to OSHA CFR 29 1910.1200 and aligns to the United Nations Globally Harmonized System  
Conforms to The United Nations Regulation Globally Harmonized System  
Conforms to Regulation (EU) No 453/2010  
Conforms to Regulation (EC) No 1272/2008 and aligns to the United Nations Globally Harmonized System  
Conforms to the Australian Preparation of Safety Data Sheets for Hazardous Chemicals under section 274 of the Work Health and Safety Act

### Section 1 - Chemical Product and Company Identification

#### 1 Product Name: **Ethanol Shield**

B3C Fuel Solutions LLC, 108 Daytona Street, Conway, SC 29526, 843-347-0482

Recommended Use: Fuel system treatment

1.4 **RESTRICTIONS on USE** THIS STABILIZER IS FOR GASOLINE ENGINES ONLY

1.5 **Emergency Response Number: INFOTRAC 800-535-5053**

**International Emergency Telephone Number: +1-352-323-3500**

### Section 2 - Hazards Identification

#### 2.1 **GHS HAZARD**

##### Hazard Classes

##### Hazard Categories

**Flammable liquid/vapor**

**Category 4**

**Eye Irritation**

**Category 2A**

**Skin Irritation**

**Category 2**

**Specific Target Organs toxicity single exposure**

**Category 3**

**Specific Target Organs repeated exposure**

**Category 1**

**Acute Toxicity (Oral)**

**Category 4**

**Acute Toxicity (Inhalation)**

**Category 4**

**Acute Toxicity (Dermal)**

**Category 4**

**Harmful to aquatic life with long lasting effects**

**Category 3**

2.2 **Signal Word: Danger**



2.3 **Pictograms:**

Irritant

Health

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## 2.4 Hazard Statements

### PHYSICAL HAZARDS:

H227: Combustible liquid and vapor

### HEALTH HAZARDS:

H302: Harmful if swallowed

H315: Causes skin irritation

H312: Harmful in contact with skin

H319: Causes serious eye irritation

H332: Harmful if inhaled

H336: May cause drowsiness or dizziness

H372: Cause damage to organs

### ENVIRONMENTAL HAZARDS:

H412: Harmful to aquatic life with long lasting effects

### PRECAUTIONARY STATEMENTS:

P102: Keep out of reach of children

P201: Obtain special instructions before use

P202: Do not handle until all safety precautions have been read and understood

P210: Keep away from sparks and open flames- No smoking

P260: Do not breathe vapors

P264: Wash hands thoroughly after handling

P270: Do not eat, drink or smoke when using this product

P271: Use only outdoors or in a well-ventilated area

P273 - Avoid release to the environment

P280: Wear protective gloves, clothing, respiratory and eye protection

### RESPONSE STATEMENTS:

301 +310+ P331: IF SWALLOWED: USA Immediately call the National POISON CENTER at 800-222-1222. OUTSIDE USA Immediately call poison center or doctor. DO NOT induce vomiting

P303+P361+353: IF ON SKIN Take off immediately all contaminated clothing. Rinse skin with water

P304+340: IF INHALED. Remove to fresh air and keep comfortable for breathing

P305+P351: IF IN EYES rinse cautiously with water for at least 15 minutes

P306+P361: IF ON CLOTHING, Take off contaminated clothing

P370: In case of fire use foam, carbon dioxide, dry chemical to extinguish fire

P376: Stop leaks if safe to do so. See section 6 for proper clean up

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## STORAGE STATEMENTS:

**P403: Keep Cool Store in a well-ventilated place**

## DISPOSAL STATEMENTS:

**P501: Dispose of content and/or container in accordance with local, regional, national or international regulations**

## Section 3 - Composition / Information on Ingredients

### 3.1

CAS#	EC#	Chemical Names	Percent	Other Identifiers
N/A	N/A	Blend of alkoxyated alcohol, alkoxyated cresol, saturated fatty acid and modified glycol ether	100%	None

### 3.2 Blend Contains

Chemical Names	CAS#	EC#
3-Oxa-1-heptanol	111-76-2	203-905-0
Saturated fatty acid	73398-61-5	277-452-2
BHT	128-37-0	204-881-4
Alkoxyated alcohol	204336-40-3	None found

**3.3 Trade Secret Provision and Chemical Concentration Disclosure:** In accordance with OSHA and GHS Regulations we have withheld specific percentages of the chemicals in this mixture. The chemical concentrations have been disclosed as a blend and are applicable to the hazards as identified in this Safety Data Sheet

## Section 4 - First Aid Measures

**4.1 Eye:** Contact with the eyes can cause serious irritation. Symptoms may include discomfort or pain and redness. Severe overexposure can result in swelling of the conjunctiva along with tissue damage.

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**4.2 Skin:** Prolonged and repeated liquid contact can cause defatting and drying of the skin and can lead to irritation and/or dermatitis.

**Skin:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

**4.3 Ingestion:** Liquid ingestion can cause inebriation, headache, gastrointestinal pain, nausea, and vomiting leading to central nervous system depression. Aspiration of liquid into the lungs must be avoided as even small quantities in the lungs can produce chemical pneumonia, pulmonary edema and even death.

**Ingestion:** Do NOT induce vomiting. Get medical aid immediately.

**4.4 Inhalation:** Prolonged breathing of high vapor concentrations can produce headache, dizziness, nausea, and impaired vision. Excessive overexposure can cause central nervous system depression, loss of consciousness, liver damage and death resulting from respiratory failure.

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**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult and **IF TRAINED**, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation without protection.

**4.5 After first aid, get appropriate paramedic, or community medical support.** The severity of outcome following ingestion may be more related to the time between ingestion and treatment, rather than the amount ingested. Therefore, there is a need for rapid treatment of any ingestion exposure.

**4.6 Note to Physicians:** If you determine that a medical emergency exists and the specific chemical identity is necessary for emergency or first-aid treatment we will immediately disclose the specific chemical identity. Call CHEMTREC 800-535-5053 or +1-353-323-3500. We will require a written statement of need and confidentiality agreement, in accordance with OSHA's Trade Secret Regulations as soon as circumstances permit. In non-emergency situations, we will upon written request disclose a specific chemical identity.

## Section 5 - Fire-Fighting Measures

### 5.1 General Fire Hazards

Use water to cool containers exposed to fire

### 5.2 Hazardous Combustion Products

Avoid fumes of burning product.

### 5.3 Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog

**5.4 Fire Fighting Equipment/Instructions** Large fires evacuate area and fight fire from a safe distance or protected location. Approach fire from upwind to avoid exposure to this material and its toxic decomposition products. Wear full protective gear if exposure is possible.

## Section 6 - Accidental Release Measures

**6.1 Spill /Leak Procedures:** Ventilate area. Wear adequate protective equipment. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition away from the spill.

**6.2 Spills:** Avoid direct contact with material. Stop leak if without risk. Move containers from spill area. Prevent entry into sewers or waterways. Contain and collect spillage with non-combustible, absorbent material such as sand, earth, vermiculite or diatomaceous earth and place in a container for disposal.

## Section 7 - Handling and Storage

**7.1 Handling Precautions:** Keep away from ignition sources such as heat, sparks and open flames **NO SMOKING** Take precautionary measures against static discharge. Non sparking tools should be used. Wear protective gloves, clothing and eye protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment. Empty containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death.

**7.2 Storage Requirements:** Store in original manufacture container tightly closed container in a cool, dry and well-ventilated area.

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**7.3 Chemical Incompatibilities:** Strong oxidizing agents and strong reducing agents.

## Section 8 - Exposure Controls / Personal Protection

8.1	Chemical Names	ACGIH- TLV	OSHA - PEL
	Blend of alkoxyated alcohol, alkoxyated cresol, saturated fatty acid and modified glycol ether	25 ppm	*50 ppm

### 8.2

**ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value.**

**OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits.**

**NOTE: TWA Means** "TWA is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded." \*Listed on the OSHA Z1 Table

**8.3 Ventilation:** Provide a general or local exhaust ventilation system to maintain airborne concentrations below TLV/PELs Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**8.4 Contaminated Equipment:** Separate contaminated work clothes from street clothes and launder before reuse. Remove this material from your shoes and clean personal protective equipment.

### 8.5 Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use. Select gloves tested to the **ANSI/ISEA 105-2011** or European EN374 Standard.

Full contact: Nitrile rubber

Splash contact: Nitrile rubber

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing, flame retardant antistatic protective clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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## 8.6 Protective Clothing Pictograms



## Section 9 - Physical and Chemical Properties

### 9.1

**Physical State:** Liquid

**Appearance:** Various

**Odor:** Characteristic order

**Vapor Pressure:** Not Available

**Vapor Density (Air=1):** >1

**Specific Gravity (H<sub>2</sub>O=1,):** 0.75

**Relative Density:** Not Available

**Odor Threshold:** Not Available

**Flammability (solid, gas):** Not applicable.

**Evaporation rate:** Not Available

**Partition coefficient octanol/water:** Not Available

**pH:** None

**Water Solubility:** Insoluble in water

**Flash Point:** 142.7°F (61.5°C) closed cup

**Boiling Point/Range:** 275-410°F (135-210°C)

**Lower Explosive Limits (vol % in air):** 1%

**Upper Explosive Limits (vol % in air):** 10%

**Melting Point:** Not Available

**Viscosity:** Not Available

**Auto ignition Temperature:** Not Available

**Decomposition temperature:** Not Available

## Section 10 - Stability and Reactivity

**0.1 Stability:** Stable under ordinary conditions of use and storage.

**10.2 Polymerization:** Hazardous polymerization has not been reported.

**10.3 Chemical Incompatibilities:** Strong oxidizing agents and Perchloric Acid

**10.4 Hazardous Decomposition Products:** Peroxides

**10.5 Conditions to Avoid:** Temperatures above 62°C, heat, sparks, open flames, other ignition sources.

## Section 11- Toxicological Information

### 11.1

Product Name	Results	Species	Dose	Exposure
Blend of alkoxyated alcohol, alkoxyated cresol, saturated fatty acid and modified glycol ether	Oral LD50	Rat	588 mg/kg	4 hours
Blend of alkoxyated alcohol, alkoxyated cresol, saturated fatty acid and modified glycol ether	Inhalation LC50	Rat	925 ppm	4 hours
Blend of alkoxyated alcohol, alkoxyated cresol, saturated fatty acid and modified glycol ether	Dermal LC50	Rabbit	500 mg/kg	Non Listed

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**11.1.1 OECD Guideline 401 Tests** results found in the European Chemical Agency Data Base shows that components of this product to cause Oral Toxicity.

**11.11.2 OECD Guideline 403 Tests** results found in the European Chemical Agency Data Base shows that components of this product to be Inhalation Toxicity.

**11.11.3 OECD Guideline 402 Tests** results found in the European Chemical Agency Data Base shows that components of this product to Dermal Toxicity.

**11.2 Route of Entry:** Inhalation, Ingestion, Absorption, Skin and/or Eye Contact

**11.3 Aspiration Hazard:** European Chemical Agency Data Base shows that no components of this product may be fatal if swallowed and enters airways.

**11.4 Mutagenicity:** European Chemical Agency Data Base show no components of this product to cause genetic defects.

**11.5 Skin Corrosion/Irritation:** OECD Guideline 404 Tests results found in the European Chemical Agency Data Base shows that components of this product to cause skin irritation. Repeated exposure may cause skin dryness or cracking.

**11.6 Serious Eye Damage/Irritation:** OECD Guideline 405 Tests results found in the European Chemical Agency Data Base shows that components of this product to cause serious eye irritation.

**11.7 Specific Target Organ Toxicity (Single Exposure):** European Chemical Agency Data Base shows that components of this product may cause drowsiness and dizziness.

**11.8 Reproductive toxicity:** European Chemical Agency Data Base show no components of this product to cause damage to fertility or the unborn child.

**11.9 Target Organ Toxicity (Repeated Exposure):** Contains material which may cause damage to the following organs: kidneys, lungs, liver, upper respiratory tract, skin, eyes, central nervous system (CNS).

**11.10 Signs and Symptoms:** Contains material which may cause damage to the following organs: Eyes, Kidney, Liver, Heart, Central nervous system. Effects due to ingestion may include: Headache, Dizziness, Drowsiness, Metabolic Acidosis, Coma, Seizures. Symptoms may be delayed.

**11.12 Carcinogenicity:** European Chemical Agency Data Base shows that no components of this product to cause cancer in humans.

Chemical Name	IARC	ACGIH	NTP	OSHA
Blend of Hydrocarbons and modified glycol ether	Not classified as a carcinogenicity to humans	Confirmed animal with unknown relevance to humans	Not listed	Not Listed

## Section 12 - Ecological Information

### 12.1

Product Name	Results	Species	Exposure
Blend of Hydrocarbons and modified glycol ether	Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the environment		



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**12.2 Toxicity:** European Chemical Agency Data Base show components of this product to be harmful and cause long term toxicity to fish.

**12.3 Mobility:** Floats on water, absorbs into soil and has low mobility.

**12.4 Persistence/degradability:** No data found.

**12.5 Bioaccumulation:** No data found.

## Section 13 - Disposal Considerations

**13.1 Disposal: DO NOT REUSE EMPTY CONTAINER!** Container should be completely emptied prior to discard. Container with residues should be considered to be hazardous wastes. Contact a licensed contractor for detailed recommendations. Follow applicable federal, state, and local regulations.

## Section 14 - Transport Information

### 14.1

Regulatory Information	UN #	Proper Shipping Name	Hazard Class	PG	Label	Additional Information
DOT Classification		Not Regulated				
TDG Classification		Not Regulated				
RID/ARD Classification		Not Regulated				
IMDG Classification		Not Regulated				
ICAO/IATA Classification		Not Regulated				
Australian Classification		Not Regulated				

## Section 15 - Regulatory Information

### 15.1 US Regulations:

**TSCA:** All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

**CERCLA Hazardous Substances and corresponding RQs:** None

**SARA Community Right-to-Know Program:** None

**Clean Water Act:** None

**Clean Air Act:** None

**OSHA:** All ingredients are listed in 1910.1200

### State Regulations

**California prop. 65:** None



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## Chemicals on the following State Right to Know Lists:

**Massachusetts:** All components of this product are on the Massachusetts Inventory or are exempt from Inventory requirements.

**New Jersey** All components of this product are on the New Jersey inventory or are exempt from Inventory requirements.

**Pennsylvania:** All components of this product are on the Pennsylvania Inventory or are exempt from Inventory requirements.

## 15.2 Canadian Regulation

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

## 15.3 Europe Regulations

All substances contained in this product are listed on the EU directives or are not required to be listed.

## 15.4 International Regulations:

**Australian Inventory of Chemical Substance:** All components of this product are on the Inventory or are exempt from Inventory requirements.

**National Existing Chemical Inventory in Taiwan:** All components of this product) are on Inventory or are exempt from Inventory requirements.

**Philippine Inventory of Chemicals and Chemical Substances** All components of this product are on the Inventory or are exempt from Inventory requirements.

**China Existing Chemical Inventory:** All components of this product are on the Inventory or are exempt from Inventory requirements.

## Section 16 - Other Information

**16.1 Disclaimer:** The information presented in this Safety Data Sheet is based on data believed to be accurate as of the date this Safety Data Sheet was prepared. HOWEVER, NO responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above is furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use.

**16.2 References:** CHEMpendium data base of Canadian Centre for Occupational Health and Safety (CCOHS), JJ Keller on Line, European Chemical Agency Data Base and MSDS and SDS of chemicals in this mixture.

**16.3 SDS Preparation Date** 08/16/2016

**SDS Previous Issue Date:** 08/14/2014

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