1.1 PRODUCT IDENTIFIER

Product Name: Barton & Fitz Bioethanol Fireplace Fuel

Product Code: BFFPF-32

1.2 RELEVENT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Use as fuel for indoor and outdoor ventless fireplaces. All other uses are advised against.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

MANUFACTURERED BY: Varsity Distilled Spirits dba Barton & Fitz

DIVISION: Material Science

ADDRESS: 14101 W. Hwy 290
STE 1800
Austin, TX 78737

EMERGENCY TELEPHONE NUMBER

CHEMTREC PHONE: 800-424-9300

PRODUCT INFORMATION: 512-351.4935

SECTION 2: HAZARDS IDENTIFICATION / INFORMATION ON INGREDIENTS

2.1 Classification of substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225

May cause eye or skin irritation with susceptible persons. May be harmful if swallowed. No components are believed to be hazardous or listed in the NIOSH Recommendations for Occupational Safety and Health Standards 1988 or are listed as hazardous by SARA, CERCLA, or RCRA. No OSHA PEL's are established for any of the other ingredients. This fuel has no substances, and no components that are listed in the California Safe Drinking Water and Toxic Enforcement Act of 1986, codified at Health and Safety Code section 25249.5 et seq., commonly referred to as "Proposition 65".

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal Word	DANGER
Hazard statement(s)	
H225	Highly flammable liquid and vapor.
H301 + H311 + H331	Toxic if swallowed.
H319	Causes serious eye irritation.
H370	Causes damage to organs
Precautionary statement(s)	
P210	Keep away from heat / sparks / open flames / hot surfaces. No Smoking
P233	Keep container closed tightly.
P243	Protect against static discharge
P264	Wash skin thoroughly after handling
P301+P310+P330	If SWALLOWED: Immediately call POISON CENTER.
P 303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water & shower
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses. Continue rinsing.
P337 + P313	If eye irritation persists: Get Medical advice / attention.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents / container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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SECTION 3: Composition / Information on Ingredients

3.1 Substances:

Formula	: C2H60	EC-No.	: 200-578-6
Molecular Weight	: 46.07 /g/mol	Index-No.	: 603-002-00-5
CAS-No.	: 64-17-5		

3.2 Occupational Exposure Limits

INGREDIENT	***CAS #***	***ACGIH TLV (TWA)***	***ACGIH TLV (STEL)***	***OSHA PEL (TWA)***	***OSHA PEL (STEL)***	**%**
Ethyl Alcohol	64-17-5	1000 PPM		1000 PPM		> 90%
Methanol (denaturant)	67-57-1	200 PPM	250 PPM	200 PPM	250 PPM	<4%
Denatonium Benzoate (bitterant)	3734-33-6					<0.1%

SECTION 4: FIRST AID PROCEDURES

4.1 Description of first aid measures

General advice. Show this material data sheet to the doctor in attendance.

Eyes: Immediately flush affected area with plenty of cool water and continue for at least 15 minutes. GET MEDICAL ATTENTION.

Skin: Rinse exposed area well with water. If irritation occurs, consult a physicianRemove and wash contaminated clothing before reuse.

Ingestion: If victim is conscious and able to swallow, have victim drink water or milk to dilute. Never give anything by mouth if victim is unconscious or having convulsion. CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. Induce vomiting only if advised by physician or Poison Control Center.

Inhalation: Immediately remove victim to fresh air. If victim has stopped breathing give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media **:** Water Foam Carbon Dioxide (CO2) Dry Powder

5.2 Special hazards arising from the substance or mixture

Carbon Dioxide and/or Carbon Monoxide.
Combustible / Flashback can occur
Flames are virtually colorless and may be difficult to see.
Vapors are heavier than air and can spread across floors or large flat surfaces (table).
Vapor forms explosive mixture with air at ambient temperature.

5.3 Advice for firefighters **:** In the event of fire, wear self-contained breathing apparatus. (NIOSH approved respirators)

5.4 Further Information **:** Remove container from danger zone and cool with water.

5.5 Flash Point **:** 58°F (14°C) TCC
70°F (21°C) TOC

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, protective and emergency procedures

Advice for non-emergency personnel: Prevent further leakage. Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequateventilation. Keep away from heat and sources of ignition. Evacuate danger area, observe emergency procedures, consult an expert.

6.2 Environmental precautions

Do not let ethanol enter drains due to risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly.

SECTION: 7: HANDLING & STORAGE

7.1 Precautions for safe handling

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Recommended storage temperature see product label. Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Fuel for indoor and outdoor fireplaces and fire features designed to burn ethanol fuel.

SECTION: 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with workplace control parameters

Component	CAS No.	Value	Control Parameters	Basis
ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	USA. OSHA - Table Z-1 Limitsfor Air Contaminates 1910.1000
		TWA	1,000 ppm 1,900 mg/m3	USA. Occupational ExposureLimits (OSHA) Table Z-1 Limits for Contaminants
		STEL	1,000 ppm	USA. AGIH Threshold Limit Values (TVL)
	Remarks	Confirmed animal carcinogen with unknown relevance to humans.		

8.2 Exposure Controls

Appropriate engineering controls: Change contaminated clothing. Wash hands after working with substance.

Personal protective equipment

Eye/face protection: Use eye protection that is tested per appropriate government standards ie. NIOSH (US) or EN 166(EU). Safety glasses **Skin protection:** This recommendation applies only to product stated in this safety data sheet, supplied by us and for the designated use. **Control of environmental exposure**: Do not let product enter drains. Risk of explosion.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Appearance	Liquid / Colorless
(b) Odor	pungent
(c) Odor Threshold	0.1 ppm
(d) pH	7.0 at 10 g/l at 20 °C (68 °F)
(e) Melting point / freezing point	-144.0 °C (-227.2 °F) at 1,013.25 hPa 78.29 °C 172.92 °F at 1,013 hPa
(f) Initial boiling point and boiling range	78.29 °C 172.92 °F at 1,013 hPa
(g) Flash point	13 °C (55 °F) - closed cup
(h) Evaporation rate	No data available
(i) Flammability (solid, gas)	No data available
(j) Upper/lower flammability or explosive limits	Upper explosion limit: 13.5 %(V) / Lower explosion limit: 2.5 %(V)
(k) Vapor pressure	0.57 hPa at 19.6 °C (67.3 °F)
(l) Vapor density	1.6
(m) Relative density	No data available
(n) Water solubility	1,000 g/l at 20 °C (68 °F) - completely miscible
(o) Partition coefficient: n-octanol / water	log Pow: -0.35 at 24 °C (75 °F) - Bioaccumulation is not expected.
(p) Autoignition temperature	455 °C (851 °F) at 1,013 hPa - DIN 51794
(q) Decomposition temperature	Distillable in an undecomposed state at normal pressure.
(r) Viscosity	No data available
(s) Explosive properties	No data available
(t) Oxidizing properties	No data available

9.2 Other safety information

Conductivity	< 1 µS/cm
Surface tension	72.75 mN/m at 20 °C (68 °F)
Relative vapor density	1.6

SECTION 10: Stability and reactivity

10.1 Reactivity / Vapors may form explosive mixture with air.

10.2 Chemical stability / The product is chemically stable under standard ambient conditions (room temperature) .

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 10,470 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 124.7 mg/l (OECD Test Guideline 403)

Dermal: No data available

No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 24 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye irritation. (OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Methanol

11.1 : Acute toxicity (continued)

Germ cell mutagenicity

Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: dominant lethal test / Species: Mouse

Application Route: Oral
Method: OECD Test Guideline 478
Result: Positive results were obtained in some in vivo tests.

Carcinogenicity

No data available

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

NTP: No ingredient 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 on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 : Additional Information

Repeated dose toxicity: Rat, male, Oral - NOAEL (No observed adverse effect) - 1,730 mg/kg - LOAEL (Lowest observed adverse effect) - 3,200 mg/kg irritant effects, respiratory paralysis, Dizziness, narcosis, inebriation, euphoria, Nausea, Vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish :	low-through test LC50 - Pimephales promelas (fathead minnow) - 15,300 mg/l - 96 h / (US-EPA)
Toxicity to daphnia & other aquatic invertebrates	static test LC50 - Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48 h / Remarks: (ECHA)
Toxicity to algae	static test ErC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 h / (OECD Test Guideline 201)
Toxicity to bacteria	static test IC50 - activated sludge - > 1,000 mg/l - 3 h / (OECD Test Guideline 209)

12.2 Persistence and degradability

Biodegradability	aerobic - Exposure time 15 d / Result: ca.95 % - Readily biodegradable. / (OECD Test Guideline 301E)
Biochemical Oxygen Demand (BOD)	930 - 1,670 mg/g / Remarks: (Lit.)
Theoretical oxygen demand	2,100 mg/g Remarks: (Lit.)

12.3 Bio-accumulative potential

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

No interference with wastewater treatment plants is to be expected when used properly. Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers or contact us if you have further questions.

SECTION 14: Transport information

DOT (US)

UN number: 1170 Class: 3 Packing group: II
Proper shipping name: Ethanol
Reportable Quantity (RQ):
Poison Inhalation Hazard: No
Limited Quantity: 3-Liter & 1-Liter bottles

IMDG

UN number: 1170 Class: 3 Packing group: II EMS-No: F-E, S-D
Proper shipping name: ETHANOL

IATA

UN number: 1170 Class: 3 Packing group: II
Proper shipping name: Ethanol

SECTION 15: Regulatory information

SARA 302 Components

This material does not contain any components with a section 302 EHS TPQ.

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.

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

SECTION 16: Other information

The information provided herein is given in good faith, but no warranty, expressed or implied, is ma