

SECTION 1: PRODUCT IDENTIFIER

PRODUCT NAME: Green Ethanol Gel Chafing Fuel

PRODUCT NUMBER(S) #GHGREEN

TRADE NAMES AND SYNONYMS: Solid Fuel, Chafing Dish Fuel

RECOMMENDED USE: A gelled ethyl alcohol food warming fuel.

USES ADVISED AGAINST: No information available

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: Hollowick In.

Address: 100 Fairgrounds Dr., Manlius, NY 13104

Telephone: 1-800-367-3015 OR 1-315-682-2613

Fax: 1-315-682-6948

Emergency Telephone Number

Emergency Phone: 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION**Classification of the substance or mixture**

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)
Flammable liquids (Category 2), H225

GHS Label elements, including precautionary statements



Pictogram

Hazard statement(s): H225 Highly flammable liquid and vapor.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403 + P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/ container to an approved waste disposal plant.

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

SECTION 3: INGREDIENTS

Ingredient	CAS No.	% by WT RANGE	CLASSIFICATION
Ethanol	64-17-5 EC-No.200-578-6 Index No. 603-002-00-5	68-70	Flammable liquids (Category 2),

All other hazardous components are less than 1.0%

SECTION 4: FIRST-AID PROCEDURES

INHALATION: ETHYL ALCOHOL

**FIRST AID- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration, if breathing is difficult, maintain airway and blood pressure and give oxygen. Keep the person warm and at rest. Administration of oxygen should be performed by qualified personnel. Treat symptomatically and supportively. Get medical attention immediately.

SKIN CONTACT: ETHYL ALCOHOL

**FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.

EYE CONTACT: ETHYL ALCOHOL

**FIRST AID- Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Continue irrigating with normal saline until the ph has returned to normal (30-60 minutes).

Get medical attention immediately

INGESTION: ETHYL ALCOHOL

**FIRST AID- Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

Get medical attention immediately.

SECTION 5: FIRE FIGHTING MEASURES

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

FIRE AND EXPLOSION HAZARD: DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK.

Flash Point:	78 Deg. °F TCC	LEL %:3.9 UEL %:19.6
--------------	----------------	-------------------------

SUITABLE EXTINGUISHING MEDIA: x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

CONDITIONS OF FLAMMABILITY: Flammable in the presence of a source of ignition when the temperature is above the flash point.

ADVICE FOR FIREFIGHTERS: Shut off source. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind. Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Cool containers with water-fog from as far a distance as possible. Wear NIOSH approved self-contained breathing apparatus for confined spaces. Use full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Dangerous fire hazard when exposed to heat. Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area.

COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides, nitrogen oxides and other unidentified organic compounds evolve when this material undergoes combustion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE MEASURES: Flammable; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

METHODS FOR CONTAINMENT AND CLEAN UP: Use explosion proof equipment and equipment that can withstand the corrosive nature of this product. Shut off valves, contain spill, and keep out of water sources and sewers, for smaller spills add non-flammable absorbent in spill area. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent. Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

SECTION 7: HANDLING AND STORAGE

PERSONAL PRECAUTIONARY MEASURES: This material presents a fire hazard. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing

HANDLING INFORMATION: Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers. : Keep away from heat, sparks and flame. Keep container tightly closed and upright to prevent leakage. Use only with adequate ventilation. Prevent buildup of vapors. Extinguish all pilot lights and turn off heater, non-explosion proof electrical equipment and other sources of ignition during use and until all vapors are gone. Avoid contact with eyes. Avoid prolonged or repeated breathing of vapor. Avoid prolonged or repeated contact with skin. Wash hands thoroughly after handling.

STATIC HAZARD: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not be sufficient. For more information refer to OSHA Standard 29CFR 1910.106 "Flammable and Combustible Liquids" and National Fire Protection Association (NFPA 77) "Recommended Practice on Static Electricity".

CONDITIONS FOR SAFE STORAGE: Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Store in a well ventilated place, away from sources of ignition and direct sunlight. Store at 15 to 30°C (59 to 86 °F). In laboratory quantities, store away from oxidizing material, mineral acids, and chloroform. In Warehouse quantities, follow NFPA and BOCA guidelines for storage of flammable liquids. Store denatured alcohol in areas equipped with automatic sprinklers or fire extinguishing system. All denatured alcohol storage and transfer equipment should be electrically grounded and bonded to prevent possible ignition from static sparks. Use spark resistant equipment to store denatured alcohol. So not use air pressure to unload denatured alcohol from containers. Containers of this material may be hazardous when empty. Since emptied containers retain product

CONTAINER WARNINGS: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re- conditioner. Assume emptied containers to have the same hazard qualities as full containers.

SECTION 8: EXPOSURE CONTROL (PERSONAL PROTECTION)

EXPOSURE GUIDELINES:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Ethanol	64-17-5	68-70	1000ppm TLV(ACGIH)
			1000ppm TWA(NIOSH)
			1000ppm TWA(OSHA)
			3300ppm IDLH
All other hazardous components are less than 1.0%			

KEY:

(PEL) = Permissible Exposure Limit OSHA	(TLV) = Threshold Limit Value OSHA & ACGIH
(STEL) = Short Term Exposure Limit ACGIH	(WEEL) = USA. Workplace Environmental Exposure Levels
(TWA) = Time Weighted Average	CAS = Chemical Abstracts Registry Number
IDLH = Immediate Danger to Life and Health	N.E. = Not Established

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: No respirator required for normal use and exposure. For vapor concentrations 1 to 10 times ACGIH TLV an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times ACGIH TLV, in confined areas, and/or where vapor concentrations are unknown use a NIOSH approved positive pressure full face-piece supplied air respirator.

BODY CLOTHING: No protective equipment is needed under normal use conditions. However employees must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

SKIN PROTECTION: No protective equipment is needed under normal use conditions. However employees must wear appropriate protective gloves to prevent contact with this substance. Rubber or neoprene chemical resistant gloves.

EYE/FACE PROTECTION: No protective equipment is needed under normal use conditions. However employees should use safety eyewear with splash guards or face shield. Emergency shower and eyewash should be easily accessible to the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE, COLOR AND ODOR: A green gelled ethyl alcohol with a mild alcohol odor.

Odor Threshold	No data available	Evaporation Rate (Butyl Acetate=1)	1.7
pH	7.5 – 8.5	Flash Point	78°F - closed cup
Volatile	98%	Upper Flammability Limit	19.6% (V)
Melting/Freezing Point	No data available	Lower Flammability Limit	3.9% (V)
Boiling Range	165-180°F	Auto-Ignition Temperature	No data available
Specific Gravity	0.802 @ 20°C	Decomposition Temperature	No data available
Vapor Pressure	49mm Hg @ 20°C	Viscosity	No data available
Vapor Density(air=1)	No data available	Explosive Properties	No data available
Water Solubility	Soluble	Oxidizing Properties	No data available
Partition Coefficient n-Octanol/Water	No data available	Other Information:	No data available

SECTION 10: STABILITY AND REACTIVITY INFORMATION

CHEMICAL STABILITY: Unstable () Stable (X)

POSSIBILITY OF HAZARDOUS REACTIONS: Vapors may form explosive mixtures with air.

CONDITIONS TO AVOID: Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame.

INCOMPATIBLE MATERIALS: Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid and hydrogen peroxide.

HAZARDOUS DECOMPOSITION PRODUCTS: Fumes, Smoke, Carbon Monoxide, Aldehydes and other decomposition products where combustion is not complete.

HAZARDOUS POLYMERIZATION: May occur () Will not occur (X)

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye: Splashes may cause temporary pain and blurred vision. Direct contact with the liquid may cause immediate burning and stinging, with reflex closure of the lids, tearing, temporary injury of the corneal epithelium, and hyperemia of the conjunctiva. Healing is usually spontaneous and complete.

Skin: Irritation to skin results in cracking and flaking due to de-fatting action of the alcohol. Sensitization has occasionally been reported to occur in some individuals resulting in allergic contact dermatitis

Inhalation: Burn product in a well ventilated area; upon exposure to fumes Irritation of mucus membranes, eyes, nose, throat and membranes of the upper respiratory tract. Exposure of humans to 1000-10,000 PPM has caused temporary irritation of the upper respiratory tract and coughing; and if continued, central nervous system depression with headache, stupor, fatigue, dizziness, drowsiness, dullness, lassitude and loss of appetite may occur.

Ingestion: Central nervous system depression resembling intoxication by ethyl alcohol. Excitation is followed by impaired motor coordination, slurred speech, sensory disturbances such as blurred and double vision, drowsiness, loss of appetite an inability to concentrate. Other symptoms may include flushing of the face, dilated pupils, rapid pulse, nausea, vomiting, sweating, and diuresis. Ingestion of large amounts may cause confusion, disorientation, loss of motor nerve control, shallow respiration, involuntary defecation and urination, drowsiness, stupor, and possibly coma.

Chronic: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney or liver.

Medical Conditions Aggravated by Exposure> Skin contact may aggravate an existing dermatitis.

ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50(Rat)	Skin LD50(Rabbit)	Inhalation LC50
Ethanol	7060mg/kg		20000ppm/10hr
Tert-Butyl Alcohol	2743mg/kg	2000mg/kg	

ETHANOL:**MUTAGENIC EFFECTS:** No data available**TUMORIGENIC:** Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease.**CARCINOGEN STATUS:** 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, OSHA or ACGIH.**REPRODUCTIVE TOXICITY:** Human - female - Oral

Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on Newborn: Drug dependence.

SPECIFIC TARGET ORGAN TOXICITY (STOT-SE) - single exposure (Globally Harmonized System): Inhalation - May cause respiratory irritation.**SPECIFIC TARGET ORGAN TOXICITY (STOT-RE)** - repeated exposure (Globally Harmonized System): no data available**ASPIRATION HAZARD:** No data available**ADDITIONAL INFORMATION:** Central nervous system depression, narcosis, Damage to the heart.**SECTION 12: ECOLOGICAL INFORMATION**

No information on this gelled product is available at this time.

For Ethanol: The following is available

AQUATIC TOXICITY:

LC50 96-hour (Rainbow Trout) 12900-15300mg/L;

LC50 24-hour (Rainbow Trout) 11200mg/L;

EC50 5-30minutes (Phytobacterium phosphoreum) 34900mg/L

WATERFOWL TOXICITY: No data available**PERSISTANCE AND DEGRADABILITY:** When spilled on land it is apt to volatilize biodegrade and leach into ground water, but no data on rates of these processes could be found. When released into water it will volatilize and probably biodegrade. When released into the atmosphere it will photodegrade in hours in a polluted atmosphere to an estimated range of 4 to 6 days in a less polluted atmosphere.**BIOACCUMULATION:** No data available**BIOCONCENTRATION FACTOR (BCF):** No data available**BIOLOGICAL OXYGEN DEMAND (BOD):** No data available**FOOD CHAIN CONCENTRATION POTENTIAL:** None**SECTION 13: DISPOSAL CONSIDERATIONS**

WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.**CONTAMINATED PACKAGING:** Dispose of as unused product

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID numbers are: D001.

If the waste is a spent solvent, the appropriate spent solvent code should be used.

DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262

SECTION 14: TRANSPORT INFORMATION

USDOT Shipping Name	Consumer Commodity ORM-D No Hazmat Required 173.150; Exceptions For Class 3 (flammable and combustible liquids)
USDOT Hazard Classification	ORM-D "Consumer Commodity"
Emergency Response Guide	127
Marine Pollutant	No

SECTION 15: REGULATORY INFORMATION

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) – Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Listed

Tert Butyl Alcohol CAS 75-65-0 0.085% by wt.

SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health, Chronic Health, and Fire

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed

Reportable Quantity - None

SECTION 101(14) Reportable Quantity: None

Massachusetts Right To Know Components

Ethanol CAS-No. 64-17-5

tert-Butyl alcohol CAS-No. 75-65-0

Denatonium Benzoate CAS 3734-33-6

Pennsylvania Right To Know Components

Ethanol CAS-No. 64-17-5

tert-Butyl alcohol CAS-No. 75-65-0

Denatonium Benzoate CAS 3734-33-6

New Jersey Right To Know Components

Ethanol CAS-No. 64-17-5

tert-Butyl alcohol CAS-No. 75-65-0

Denatonium Benzoate CAS 3734-33-6

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)

Ethanol CAS-No. 64-17-5; tert-Butyl alcohol CAS-No. 75-65-0; Denatonium Benzoate CAS 3734-33-6 are listed on the TSCA Inventory.

SECTION 16: OTHER INFORMATION:

HMIS (Hazardous Materials Identification System) Hazard Rating:

4-Extreme
3-High
2-Moderate
1-Slight
0-Insignificant

HMIS RATINGS (SCALE 0-4):	Health=2	Fire=3	Reactivity=0
NFPA RATINGS (SCALE 0-4):	Health=2	Fire=3	Reactivity=0 PPE=G

Date of preparation: June 1, 2016 Reviewed: June 11, 2018

Revision number 1

Acronyms:

ACGIH - American Conference of Governmental Industrial Hygienists
AIHA - American Industrial Hygiene Association
ANSI - American Nation Standards Institute
API - American Petroleum Institute
CERCLA - Comprehensive Emergency Response, Compensation, and Liability Act
DOT - U.S. Department of Transportation
EPA - U.S. Environmental Protection Agency
HMIS - Hazardous Materials Information System
IARC - International Agency For Research On Cancer
MSHA - Mine Safety and Health Administration
NFPA - National Fire Protection Association
NIOSH - National Institute of Occupational Safety and Health
NOIC - Notice of Intended Change (Proposed change to ACGIH TLV)
NTP - National Toxicology Program
OPA - Oil Pollution Act of 1990
OSHA - U.S. Occupational Safety & Health Administration
PEL - Permissible Exposure Limit (OSHA)
RCRA - Resource Conservation and Recovery Act
REL - Recommended Exposure Limit (NIOSH)
SARA - Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA - Self-Contained Breathing Apparatus
STEL - Short-Term Exposure Limit (generally 15 minutes)
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average (8hr.)
WHMIS - Canadian Workplace Hazardous Materials Information System

This information is furnished without warranty, representation, inducement of license of any kind, except that it is accurate to the best of Hollowick's knowledge, or obtained from sources believed by Hollowick, Inc. to be accurate, and Hollowick, Inc. does not assume any legal responsibility for use or reliance upon same. Users are encouraged to conduct their own tests. Before using any product, read its label. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.