



## Section 1: IDENTIFICATION

**Product Identifier:** Denatured Alcohol

**Other Means of Identification:** E98, E95, Fuel Ethanol, Denatured Ethyl Alcohol.

**SDS Number:** 4033.

**Product Code:** Not available.

**Product Use:** Automotive spark ignition engine fuel; Motor fuel additive.

**Restrictions on Use:** Not available.

**Manufacturer/Supplier:** U.S. OIL & REFINING CO.  
3001 Marshall Ave.  
Tacoma, WA 98421

**Emergency Phone:** U.S. OIL & REFINING CO.: (253) 383-1651  
CHEMTREC: 800-424-9300  
NATIONAL POISON CENTER: 1-800-222-1222

**Date of Preparation of SDS:** October 13, 2021

## Section 2: HAZARD(S) IDENTIFICATION

**CLASSIFICATION:** Flammable Liquids, Category 2  
Eye Irritation, Category 2B  
Specific Target Organ Toxicity (Single Exposure), Category 3 - Respiratory Irritation  
Specific Target Organ Toxicity (Single Exposure), Category 3 - Narcotic Effects

### LABEL ELEMENTS

**Hazard Symbol(s):**



**Signal Word:** Danger

**Hazard Statements:** H225: Highly flammable liquid and vapor.  
H320: Causes eye irritation.  
H335: May cause respiratory irritation.  
H336: May cause drowsiness or dizziness.

### PRECAUTIONARY STATEMENTS

**Prevention:** P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233: Keep container tightly closed.  
P240: Ground and bond container and receiving equipment.  
P241: Use explosion-proof electrical, ventilating, and lighting equipment.  
P242: Use non-sparking tools.



### SAFETY DATA SHEET

- P243: Take action to prevent static discharges.
- P261: Avoid breathing mist, vapors, or spray.
- P264: Wash hands thoroughly after handling.
- P271: Use only outdoors or in a well-ventilated area.
- P280: Wear protective gloves, protective clothing and eye protection.

**Response:** P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P312: Call a POISON CENTER or doctor if you feel unwell.  
 P337 + P313: If eye irritation persists: Get medical attention.  
 P370 + P378: In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish.

**Storage:** P403 + P233: Store in a well-ventilated place. Keep container tightly closed.  
 P235: Keep cool.  
 P405: Store locked up.

**Disposal:** P501: Dispose of contents and container in accordance with applicable regional, national and local laws and regulations.

**Hazards Not Otherwise Classified:** No applicable information was found.

**Ingredients with Unknown Acute Toxicity:** 5% of this product mixture consists of ingredient(s) of unknown acute toxicity.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

This material is considered hazardous by the Hazardous Products Regulations.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	Common name / Synonyms	CAS No.	% wt./wt.
Ethanol	Not available.	64-17-5	95 - 98
Gasoline (natural gas), natural	Not available.	68425-31-0	2 - 5
Gasoline	Not available.	86290-81-5	2 - 5
Benzene	Not available.	71-43-2	< 0.1

### Section 4: FIRST-AID MEASURES

**Inhalation:** If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. If breathing or the heart stops, trained personnel should immediately begin artificial respiration (AR) or cardiopulmonary resuscitation (CPR) respectively. Get medical attention immediately.



### SAFETY DATA SHEET

**Acute and delayed symptoms and effects:** May cause respiratory irritation. May cause drowsiness or dizziness. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Excessive inhalation may cause headache, dizziness, confusion, loss of appetite and/or loss of consciousness.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Call a poison center or doctor if you feel unwell.

**Acute and delayed symptoms and effects:** May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

**Eye Contact:** If in eyes: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Acute and delayed symptoms and effects:** Causes eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Ethanol may cause painful sensitization to light, chemical conjunctivitis and corneal damage.

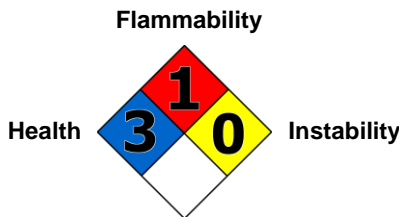
**Ingestion:** If swallowed: Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If breathing or the heart stops, trained personnel should immediately begin artificial respiration (AR) or cardiopulmonary resuscitation (CPR) respectively. Get medical attention immediately.

**Acute and delayed symptoms and effects:** May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

**Note to Physicians:** Symptoms may not appear immediately.

### Section 5: FIRE-FIGHTING MEASURES

#### NFPA 704



#### SUITABLE/UNSUITABLE EXTINGUISHING MEDIA

**Suitable Extinguishing Media:** Small Fire: Dry chemical, CO2, water spray or alcohol-resistant foam.

Large Fire: Water spray, fog or alcohol-resistant foam. Move containers from fire area if you can do it without risk.



# Par Pacific

## Denatured Alcohol

Date of Preparation: October 13, 2021

### SAFETY DATA SHEET

**Unsuitable Extinguishing Media:** Do not use straight streams. CAUTION: This product has a very low flash point: Use of water spray when fighting fire may be inefficient.

### SPECIFIC HAZARDS

Highly flammable liquid and vapor. Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Liquid is lighter than water.

If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Fire involving Tanks or Car/Trailer Loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

**Products of Combustion:** Oxides of Carbon.

**Sensitivity to Mechanical Impact:** This material is not sensitive to mechanical impact.

**Sensitivity to Static Discharge:** Take action to prevent static discharges. This material is sensitive to static discharge.

### SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Runoff from fire control may cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

## Section 6: ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

**Personal Precautions:** Do not touch or walk through spilled material. Use personal protection recommended in Section 8.

**Protective Equipment:** Emergency eyewash capability should be available. Wear respiratory protection as conditions warrant.

**Emergency Procedures:** As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded.



### SAFETY DATA SHEET

#### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

**Methods for Containment:** Stop leak if it can be done without risk. A vapor suppressing foam may be used to reduce vapors.

**Methods for Clean-Up:** Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

### Section 7: HANDLING AND STORAGE

#### PRECAUTIONS FOR SAFE HANDLING:

Do not swallow. Avoid breathing mist, vapors, or spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use non-sparking tools. Take action to prevent static discharges. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. See Section 8 for information on Personal Protective Equipment.

#### CONDITIONS FOR SAFE STORAGE:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Store away from incompatible materials. See Section 10 for information on Incompatible Materials.

### Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

#### EXPOSURE LIMITS

Component	ACGIH	OSHA
Ethanol [CAS No. 64-17-5]	1000 ppm (STEL); A3 (2008)	1000 ppm (TWA), 1900 mg/m <sup>3</sup> (TWA)
Gasoline (Natural Gas), Natural [CAS No. 68425-31-0]	300 ppm (TWA); 500 ppm (STEL); A3 (1990)	300 ppm (TWA); 500 ppm (STEL) [Vacated]
Gasoline [CAS No. 86290-81-5]	300 ppm (TWA); 500 ppm (STEL); A3 (1990)	300 ppm (TWA); 500 ppm (STEL) [Vacated]
Benzene [CAS No. 71-43-2]	0.5 ppm (TWA); 2.5 ppm (STEL); Skin; A1; BEI (1996)	1 ppm (TWA); 5 ppm (STEL);

**TWA:** Time-Weighted Average

**STEL:** Short-Term Exposure Limit

#### ENGINEERING CONTROLS

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits. Use explosion-proof electrical, ventilating, and lighting equipment.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)





# Par Pacific

## Denatured Alcohol

Date of Preparation: October 13, 2021

### SAFETY DATA SHEET

<b>Eye/Face Protection:</b>	Wear chemical safety goggles. Ensure that eyewash stations are close to the workstation location. Use equipment for eye protection that meets the standards referenced by CSA Standard CAN/CSA-Z94.3 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.
<b>Hand Protection:</b>	Wear protective gloves. Consult manufacturer specifications for further information.
<b>Skin and Body Protection:</b>	Wear protective clothing. Flame resistant clothing that meets the NFPA 2112 and CAN/CGSB 155.20 standards is recommended in areas where material is stored or handled.
<b>Respiratory Protection:</b>	If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4, with organic vapor cartridge, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.
<b>General Hygiene Considerations:</b>	Handle according to established industrial hygiene and safety practices. Consult a competent industrial hygienist to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear, colorless, volatile liquid.
<b>Color:</b>	Colorless.
<b>Odor:</b>	Alcohol.
<b>Odor Threshold:</b>	Not available.
<b>Physical State:</b>	Liquid.
<b>pH:</b>	6 to 9
<b>Melting Point / Freezing Point:</b>	-114 °C (-173 °F) (Ethanol)
<b>Initial Boiling Point:</b>	72 °C (162 °F)
<b>Boiling Range:</b>	Not available.
<b>Flash Point:</b>	-7 °C (19 °F) (ASTM D3278)
<b>Evaporation Rate:</b>	1.9 (n-BuAc = 1)
<b>Flammability (solid, gas):</b>	Not applicable.
<b>Lower Flammability Limit:</b>	3.5 %





# Par Pacific

## Denatured Alcohol

Date of Preparation: October 13, 2021

### SAFETY DATA SHEET

<b>Upper Flammability Limit:</b>	16.8 %
<b>Vapor Pressure:</b>	3.17 psi (DVPE)
<b>Vapor Density:</b>	1.6 (Air = 1) Ethanol
<b>Relative Density:</b>	0.787 to 0.797 (Water = 1) at 16 °C (60 °F)
<b>Solubilities:</b>	Soluble in water.
<b>Partition Coefficient: n-Octanol/Water:</b>	Not available.
<b>Auto-ignition Temperature:</b>	376 °C (709 °F)
<b>Decomposition Temperature:</b>	Not available.
<b>Viscosity:</b>	1.08 cP at 25 °C (77 °F) (Ethanol)
<b>Percent Volatile, wt. %:</b>	Not available.
<b>VOC Content, wt. %:</b>	Not available.

### Section 10: STABILITY AND REACTIVITY

<b>Reactivity:</b>	Contact with incompatible materials. Sources of ignition. Exposure to heat.
<b>Chemical Stability:</b>	Stable under normal storage conditions.
<b>Possibility of Hazardous Reactions:</b>	None known.
<b>Conditions to Avoid:</b>	Contact with incompatible materials. Sources of ignition. Exposure to heat.
<b>Incompatible Materials:</b>	Strong acids. Strong oxidizers.
<b>Hazardous Decomposition Products:</b>	Not available.

### Section 11: TOXICOLOGICAL INFORMATION

**LIKELY ROUTES OF EXPOSURE:** Eye contact. Skin contact. Inhalation. Ingestion. Skin absorption.

#### ACUTE EXPOSURE

##### PRODUCT TOXICITY

<b>Oral:</b>	Not available.
<b>Dermal:</b>	Not available.
<b>Inhalation:</b>	Not available.



# Par Pacific

## Denatured Alcohol

Date of Preparation: October 13, 2021

### SAFETY DATA SHEET

#### COMPONENT TOXICITY

Component	CAS No.	LD <sub>50</sub> oral	LD <sub>50</sub> dermal	LC <sub>50</sub>
Ethanol	64-17-5	7060 mg/kg (rat)	20000 mg/kg (rabbit)	20000 ppm (rat); 10H
Gasoline (Natural Gas), Natural Gasoline	68425-31-0	Not available.	Not available.	Not available.
Gasoline	86290-81-5	60 mL/kg (mouse)	Not available.	Not available.
Benzene	71-43-2	930 mg/kg (rat)	> 9400 µL/kg (rabbit)	10000 ppm (rat); 7H

**Target Organs:** Skin. Eyes. Gastrointestinal tract. Respiratory system. Blood. Bone marrow. Liver. Kidneys. Central nervous system.

#### SYMPTOMS (including delayed and immediate effects)

**Inhalation:** May cause respiratory irritation. May cause drowsiness or dizziness. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Excessive inhalation may cause headache, dizziness, confusion, loss of appetite and/or loss of consciousness.

**Eye:** Causes eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Ethanol may cause painful sensitization to light, chemical conjunctivitis and corneal damage.

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

**Ingestion:** May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

**Skin Sensitization:** Not available.

**Respiratory Sensitization:** Not available.

**Medical Conditions Aggravated By Exposure:** Not available.

#### CHRONIC EFFECTS (from short and long-term exposure)

**Target Organs:** Skin. Eyes. Gastrointestinal tract. Respiratory system. Blood. Cardiovascular system. Bone marrow. Liver. Kidneys. Reproductive system. Central nervous system.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation. High vapor concentrations, generally greater than 10% by volume, may sensitize the heart and lead to lethal cardiac arrhythmias. Long term inhalation of Benzene vapors can result in bone marrow abnormalities with damage to blood forming tissues and may cause anemia and other blood cell abnormalities. Immunodepressive effects have also been reported. Prolonged exposure to Ethanol





# Par Pacific

## Denatured Alcohol

SAFETY DATA SHEET

Date of Preparation: October 13, 2021

may cause liver, kidney, and heart damage.

**Carcinogenicity:**

Product is not classified as a carcinogen. See Component Carcinogenicity table below for information on individual components. Animal studies with Ethanol have reported the development of tumours. Long-term exposure to Gasoline vapors has caused cancer in laboratory animals. Chronic exposure to benzene has been associated with an increased incidence of leukemia and multiple myeloma (tumour composed of cells of the type normally found in the bone marrow).

**Component Carcinogenicity**

Component	ACGIH	IARC	NTP	OSHA	Prop 65
Ethanol	A3	Group 1	Not listed.	OSHA Carcinogen.	Not listed.
Gasoline (Natural Gas), Natural Gasoline	A3	Group 2B	Not listed.	OSHA Carcinogen.	Listed.
Benzene	A1	Group 1	List 1	OSHA Carcinogen.	Listed.

**Mutagenicity:**

Laboratory experiments with Ethanol have resulted in mutagenic effects.

**Reproductive Effects:**

Ethanol may cause reproductive effects.

**Developmental Effects**

**Teratogenicity:**

Not available.

**Embryotoxicity:**

Ethanol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals. Prenatal exposure to ethanol is associated with a distinct pattern of congenital malformations that have collectively been termed the "fetal alcohol syndrome". Benzene has caused adverse fetal effects in laboratory animals.

**Toxicologically Synergistic Materials:**

Not available.

**Section 12: ECOLOGICAL INFORMATION**

<b>Ecotoxicity:</b>	Not available.
<b>Persistence / Degradability:</b>	Not available.
<b>Bioaccumulation / Accumulation:</b>	Not available.
<b>Mobility in Environment:</b>	Not available.
<b>Other Adverse Effects:</b>	Not available.

**Section 13: DISPOSAL CONSIDERATIONS**

**Disposal Instructions:** Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.



### Section 14: TRANSPORT INFORMATION

REGULATORY INFORMATION	ID NUMBER	EMERGENCY RESPONSE GUIDEBOOK	PROPER SHIPPING NAME	CLASS	PACKING GROUP	PLACARD
DOT Classification	UN1987	Guide 127	UN1987, ALCOHOLS, N.O.S. (Ethanol)	3	II	
TDG Classification	UN1987	Guide 127	UN1987, ALCOHOLS, N.O.S. (Ethanol)	3	II	
IATA/ICAO	UN1987	Guide 127	UN1987, ALCOHOLS, N.O.S. (Ethanol)	3	II	

### Section 15: REGULATORY INFORMATION

#### CHEMICAL INVENTORIES

##### US (TSCA)

The components of this product are in compliance with the chemical notification requirements of TSCA.

##### Canada (DSL)

The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

#### FEDERAL REGULATIONS

##### United States

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

##### SARA Title III

Component	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313	RCRA CODE	CAA 112(r) TQ (lbs.)
Benzene	Not listed.	Not listed.	10	313	U019	Not listed.

##### SARA SECTION 311/312 - EPA HAZARD CATEGORIES

<u>ACUTE HEALTH</u>	<u>CHRONIC HEALTH</u>	<u>FIRE</u>	<u>SUDDEN RELEASE OF PRESSURE</u>	<u>REACTIVE</u>
X	-	X	-	-



# Par Pacific

## Denatured Alcohol

Date of Preparation: October 13, 2021

### SAFETY DATA SHEET

#### State Regulations

California

California Prop 65:



**WARNING** This product can expose you to chemicals including Gasoline and Benzene, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### Section 16: OTHER INFORMATION

#### Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for their own particular use.

**Date of Preparation of SDS:** October 13, 2021

**Version:** 1.2

**GHS SDS Prepared by:** Deerfoot Consulting Inc.

**Phone: (403) 720-3700**