

# Safety Data Sheet

Issue Date: 01-Sept-2016

Revision Date: N/A

Version 1

## 1. IDENTIFICATION

### Product Identifier

Product Name

PURUS EMERGENCY THAW DIESEL FUEL ADDITIVE

### Other means of identification

SDS #

PUR-035 , PIN4931,PIN4933, PIN4939, PIN4937, PIN4934, PIN4940

### Recommended use of the chemical and restrictions on use

Recommended Use

Diesel Fuel Additive.

### Details of the supplier of the safety data sheet

#### Supplier Address

Warren Oil Company, Inc.  
2340 U.S. 301 North  
Dunn, NC 28335

#### Manufactured for:

AIOD  
P.O. BOX 1861  
Montrose, CO 81402-1861  
970-249-6336 [www.purusproducts.com](http://www.purusproducts.com)

### Emergency Telephone Number

Company Phone Number

1-800-428-9284

Emergency Telephone (24 hr)

CHEMTREC 1-800-424-9300 (North America) 1-703-527-3887 (International)

## 2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:

Flammable Liquids – Category 3  
Germ Cell Mutagenicity – Category 2  
Acute Toxicity (Inhalation) – Category 2  
Acute Toxicity (Oral) – Category 4  
Acute Toxicity (Skin) – Category 4  
Skin Corrosion / Irritation – Category 2  
Serious Eye Damage/Eye Irritation – Category 1  
Carcinogenicity – Category 2  
Specific target organ toxicity – single exposure (Category 3), Respiratory system, Central Nervous system, H335, H336  
Specific target organ toxicity – repeated exposure (Category 2)  
Reproductive Toxicity – 1B  
Aspiration Hazard - Category 1

Label Elements:

Signal Word:

Pictogram:

Danger



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<b>GHS Hazard Phrases:</b>	H226: Flammable liquid and vapor. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H318: Causes serious eye damage H335: May cause respiratory irritation H336: May cause drowsiness or dizziness H341: Suspected of causing genetic defects. H351: Suspected of causing cancer. H360: May damage fertility or the unborn child. H373: May cause damage to organs – liver/kidneys.
<b>GHS Precaution Phrases:</b>	P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. 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 equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P260: Do not breathe dust / fume / gas / mist / vapors / spray. 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. P280: Wear protective gloves / protective clothing / eye protection / face protection. P362: Take off contaminated clothing and wash before reuse. P363: Wash contaminated clothing before reuse.
<b>GHS Response Phrases:</b>	P301 + P312 + P330: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse skin with water/shower. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. P312: Call a POISON CENTER or doctor / physician if you feel unwell. P330: Rinse mouth. P331: Do NOT induce vomiting. P332 + P313: If skin irritation occurs, get medical advice / attention. 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.
<b>GHS Storage and Disposal Phrases:</b>	P403 + P233: Store in a well ventilated place. Keep container tightly closed. P235: Keep cool. P405: Store locked up. P501: Dispose of contents/container to an approved waste disposal plant.
<b>Other:</b>	Under United States Regulations (29 CFR 1910.1200 – Hazard Communication Standard), this product is considered hazardous.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number	EC Number	Index Number	Hazardous Components (Chemical Name)	Concentration
8052-41-3	232-489-3	8052-41-3	Stoddard Solvent	65 – 70%
71-36-3	200-751-6	603-004-00-6	1-Butanol	20 – 25 %
67-63-0	200-661-7	603-117-00-0	Isopropyl alcohol	5 – 10%
95-63-6	202-436-9	601-043-00-3	1,2,4-Trimethylbenzene	1 – 5 %
60-33-3	200-470-9	NA	Linoleic acid	< 2 %
112-80-1	204-007-1	NA	Oleic acid (TOFA)	< 0.5 %
Trade Secret	NA	NA	Proprietary Ester	< 0.5 %
1130-20-7	215-535-7	601-022-00-9	Xylene	< 0.1

### 4. FIRST-AID MEASURES

<b>In Case of Inhalation:</b>	Remove to fresh air. If not breathing, give artificial respiration and contact a physician immediately. If breathing is difficult, administer oxygen and contact a physician immediately.
<b>In Case of Skin Contact:</b>	Wash skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.
<b>In Case of Eye Contact:</b>	Immediately flush with plenty of water, alternately lifting the upper and lower eyelids. If appropriate, after 5 minutes, remove contact lenses and continue flushing the eyes for an additional 15 minutes. Get medical attention if irritation persists.
<b>In Case of Ingestion:</b>	If swallowed, DO NOT induce vomiting, but have the victim rinse mouth with water, and then drink 2-4 cups of water. Get immediate medical attention. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
<b>Note To Physician:</b>	Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mls of water and mix thoroughly. Administer 5 ml/kg or 350 ml for an average adult. Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk justified by the presence of additional toxic substances. Activated charcoal may induce vomiting, but may be given after emesis or lavage to absorb toxic additives. Steroid therapy in mild to moderate cases does not improve outcome. Bacterial pneumonia often occurs after exposure, but prophylactic antibiotics are not indicated and should be reserved for documented bacterial pneumonia. Light hydrocarbons have been associated with cardiac sensitization in abuse situations. Hypoxia or the injection of adrenaline-like substances enhanced these effects.
<b>Protection of first-aiders:</b>	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### 5. FIRE-FIGHTING MEASURES

<b>Flash Point:</b>	23.9 °C (75 °F)
<b>Explosive Limits:</b>	When heated above 100 °C, may undergo a self-accelerating, exothermic reaction which causes a rapid rise in temperature and pressure. Rupture of storage vessels and fire should be anticipated in case of such temperatures. Spray storage vessels with water to maintain temperature below 100 C.
<b>Autoignition Point:</b>	Not determined
<b>Suitable Extinguishing Media:</b>	Dry chemical, water spray (fog), carbon dioxide, foam.
<b>Fire Fighting Instructions:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand MSHA / NIOSH (approved or equivalent) and full protective gear.

**Flammable Properties And Hazards:** Flammable liquid. Vapors will burn releasing toxic vapors, fumes and smoke, including carbon monoxide and organic vapors. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture or explosion.

## 6. ACCIDENTAL RELEASE MEASURES

**Protective Precautions, Protective Equipment And Emergency Procedures:** Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Eliminate all ignition sources. Keep unnecessary and unprotected personnel from entering.

**Environmental Precautions: Steps To Be Taken In Case Material Is Released Or Spilled:** **Initial Containment:** Eliminate all sources of ignition – heat, sparks, flame, electricity, and impact. Contain spilled material with dikes or absorbents. Marine Pollutant. Do not allow material to enter soil, surface water, or sewer system.

**Large Spills Procedure:** Stop the source of the leak, if it is safe to do so. Contain spilled material. Vacuum or sweep up material and place in a disposal container. Absorb residue with inert material (e.g. dry sand or earth) then place in a chemical waste container. Do not flush to sewer. Use explosion-proof equipment during clean-up.

**Small Spills Procedure:** Absorb spills with inert material. Transfer to a chemical waste container and dispose of properly. Spills are extremely slippery and should be cleaned up immediately.

**Miscellaneous:** Treat or dispose of in accordance with all federal, state, and local requirements.

## 7. HANDLING AND STORAGE

**Precautions To Be Taken In Handling:** Ground and bond containers when transferring material. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Keep away from food and drinking water. Secure container after each use. Store in a cool dry, secure area. Keep out of reach of children. Ground containers when transferring material. Avoid contact with strong oxidizing agents. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner, or properly disposed of.

**Precautions To Be Taken In Storing:** Store in a tightly closed container. Store in a cool dry place. Eliminate all sources of ignition – heat, sparks, flame, electricity, impact and friction. Contact with hot surfaces may ignite the product.

**Other Precautions:** DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

**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, by themselves be sufficient. Review all operations that may have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitating, and vacuum truck operations) and use appropriate mitigating procedures.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

n-Butanol	ACGIH TWA: 20 ppm, OSHA PEL: 100 ppm
Isopropyl alcohol	OSHA TWA: 400 ppm; ACGIH TWA: 200 ppm; STEL: 400 ppm
Oleic acid (TOFA)	OSHA TWA: 5 mg/m <sup>3</sup> (oil mist) / ACGIH TWA: 5mg/m <sup>3</sup> (oil mist); ACGIH TWA: 3 mg/m <sup>3</sup> (respirable); 10 mg/m <sup>3</sup> (inhalable)
1,2,4-Trimethylbenzene	ACGIH TWA: 25 ppm
Xylene	OSHA TWA: 100 ppm / ACGIH TWA: 100 ppm / OSHA STEL: 150 ppm / ACGIH STEL: 150 ppm
Stoddard Solvent	ACGIH TWA: 100 ppm; NIOSH TWA: 350 mg/m <sup>3</sup> (180 mg/m <sup>3</sup> ceiling); OSHA TWA: 500 ppm

<b>Respiratory Equipment (Specify Type):</b>	Under normal use conditions, with adequate ventilation, no special handling equipment is required. If anticipating close contact with this product or its mist, local ventilation may be required to keep exposure below limits.
<b>Eye Protection:</b>	Wear safety glasses with side shields (or goggles) and a face shield.
<b>Skin Protection:</b>	Wear protective gloves to minimize skin contamination. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material. Wash hands thoroughly after handling.
<b>Engineering Controls (Ventilation, etc.):</b>	Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form:</b>	Liquid
<b>Appearance (Color):</b>	Clear, light-amber; straw-yellow (2.0)
<b>Odor:</b>	Mild petroleum distillate odor
<b>Odor Threshold:</b>	Not determined
<b>Melting Point:</b>	Not determined
<b>Pour Point:</b>	<-30 °F
<b>Boiling Point:</b>	Not determined
<b>Autoignition Point:</b>	Not determined
<b>Flash Point:</b>	23.9 °C (75 °F)
<b>Explosive Limits:</b>	Not determined
<b>Upper / Lower Flammability or Explosive Limits:</b>	Not determined
<b>Specific Gravity (Water = 1):</b>	0.788 @ 60 °F (16 °C)
<b>Vapor Pressure (vs. Air or mm Hg):</b>	Not determined
<b>Vapor Density (vs. Air = 1):</b>	Not determined
<b>Relative Density:</b>	6.58 lbs/gal
<b>Evaporation Rate:</b>	Not determined
<b>Solubility in Water:</b>	Negligible
<b>pH:</b>	Not determined
<b>Percent Volatile:</b>	Not determined
<b>Partition Coefficient: n-octanol / water :</b>	Not determined
<b>Decomposition Temperature:</b>	Not determined

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under ordinary conditions of use and storage.
<b>Incompatibility – Materials To Avoid:</b>	Avoid contact with strong oxidizing agents, such as nitric and sulfuric acids, halogens, hydrogen peroxide and chlorinating agents.
<b>Hazardous Decomposition or Byproducts:</b>	In the case of fire, a complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide, smoke and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Conditions to Avoid:</b>	Sources of ignition and temperature above 50 °C (122 °F) – 60 °C (140 °F).

## 11. TOXICOLOGICAL INFORMATION

Stoddard solvent	Acute Toxicity: Inhalation-Rat LCSO • >1400 ppm 8 Hour(s); Irritation: Eye-Human • 100 ppm – Mild irritation; Eye-Rabbit • SOO mg 24 Hour(s) • Moderate irritation; Multi-dose Toxicity: Inhalation-Rat TClO • 330 ppm 65 Day(s) – Intermittent: <i>Kidney, Ureter, and Bladder</i> changes in tubules (including acute renal failure, acute tubular necrosis); Blood: Other changes.
Xylene	Acute Toxicity: Ingestion/Oral-Rat LOSO • 4300 mg/kg; <i>Liver. Other changes; Kidney, Ureter, and Bladder. Other changes;</i> Inhalation-Rat LCSO • 5000 ppm 4 Hour(s); Inhalation-Man LCLo • 10000 ppm 6 Hour(s); <i>Behavioral: General anesthetic; Lungs, Thorax, or Respirat1on.Cyanosis; Blood. Other changes;</i> Inhalation-Human TClO • 200 ppm; <i>Sense Organs and Special Senses: Olfaction: Other changes; Sense Organs and Special Senses Eye: Conjunctive irritation; Lungs, Thorax, or Respirat10n: Other changes;</i> Skin-Rabbit LOSO • >1700 mg/kg; Irritation: Eye-Rabbit • 5 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; Reproductive: Inhalation-Rabbit TClO • 1g/m• 24 Hour(s)(7-200 preg); <i>Reproductive Effects: Specific Developmental Abnormal ties: Musculoskeletal system; Reproductive Effects: Effects on Newborn: Behavioral</i>
1,2,4-Trimethylbenzene	Acute Toxicity: Ingestion/Oral-Rat L050 • 5 g/kg; Inhalation-Rat LC50 • 18000 <i>mg/m</i> • 4 Hour(s), Mutagen: Sister chromatid exchange • Intra-peritoneal-Mouse • 900 mg/kg

<b>Acute Toxicity:</b>	Harmful if swallowed.
<b>Potential Health Effects:</b>	Irritation to eyes, skin, nose, throat; burning sensation in chest, headache, nausea, lassitude (weakness, exhaustion), restlessness, incoordination, confusion, drowsiness; vomiting, diarrhea; dermatitis; chemical pneumonitis (aspiration liquid).
<b>Skin Corrosion Property/Stimulativeness:</b>	Practically non-toxic if absorbed following acute (single) exposure. May cause skin irritation with prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.
<b>Eye Critical Damage/Stimulativeness:</b>	Contact with eyes may cause irritation.
<b>Ingestion:</b>	Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.
<b>Inhalation:</b>	Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure and death. WARNING: the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.
<b>Generative Cell Mutagenicity:</b>	This material has been positive in a mutagenicity study.
<b>Respiratory Organs Sensitization/Skin Sensitization:</b>	This product is not reported to have any skin sensitization effects.
<b>Carcinogenicity:</b>	Studies have shown that similar products produce skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Other studies with active skin carcinogens have shown that washing the animal's skin with soap and water between applications reduced tumor formation. Fuels, diesel, no. 2 (68476-34-6) ACGIH: A3 – Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed under Diesel Fuel)

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	General Product Information – Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable, under Federal and State regulations. Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment. The product hasn't been tested. The statement derived from the properties of the individual components.
<b>Persistence and Degradability:</b>	No data available.
<b>Bioaccumulative Potential:</b>	No data available
<b>Mobility in Soil:</b>	No data available.
<b>PBT/VPvB Assessment:</b>	No data available.
<b>Other Adverse Effects:</b>	No data available.

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method:</b>	Do not dispose of into waste water treatment facilities. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements. This material, if discarded, is considered a hazardous waste under RCRA Regulation 40 CFR 261.
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## 14. TRANSPORT INFORMATION

<b>UN Number:</b>	UN1993
<b>UN Proper Shipping Name:</b>	FLAMMABLE LIQUID, N.O.S. (Contains Petroleum Distillates)
<b>Packing Group:</b>	III
<b>Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)</b>	
<b>Transport Hazard Class(es):</b>	3*
<b>Maritime Transport IMDG/GGVSea</b>	
<b>Transport Hazard Class(es):</b>	3*
<b>Marine Pollutant:</b>	Yes**
<b>Air Transport ICAO-TI and IATA-DGR</b>	
<b>Transport Hazard Class(es):</b>	3

\* This material is not regulated for US DOT transportation in quantities less than 119 gallons per 49 CFR 173:120 (b)(1). Does not apply to transportation by vessel, aircraft or package shipping services.

\*\* This material is a marine pollutant when shipped in quantities greater than 119 gallons.

## 15. REGULATORY INFORMATION

<b>EPCRA 311/312 Categories:</b>	<ol style="list-style-type: none"> <li>1. Immediate (Acute) Health Effects: Yes</li> <li>2. Delayed (Chronic) Health Effects: Yes</li> <li>3. Fire Hazard: Yes</li> <li>4. Sudden Release of Pressure Hazard: No</li> <li>5. Reactivity Hazard: No</li> </ol>
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### State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Components	CAS Number	State Right-to-Know				
		NJ	PA	MA*	MN	RI
Isopropyl alcohol	67-63-0	Yes	Yes	Yes	Yes	Yes
Linoleic acid	60-33-3	No	No		No	No
Oleic acid	112-80-1	No	Yes		No	Yes
1-Butanol	71-36-3	Yes	Yes	Yes	Yes	Yes
1,2,4-Trimethylbenzene	95-63-6	Yes	Yes		No	No
Xylene	1330-20-7	Yes	Yes		Yes	Yes
Stoddard Solvent	8052-41-3	Yes	Yes		Yes	Yes

\* Massachusetts: All known ingredients of this product which could be on the Massachusetts Right-to-Know list are fully disclosed in the “chemical ingredients” section of this SDS.

**Proposition 65 (California):** This product contains a chemical known to the state of California to cause cancer.

Components	CAS Number	Canadian Disclosure List	Clean Air Act – Section 112 SC Toxic Air Pollutants List	Title V
Isopropyl alcohol	67-63-0	DSL	Yes	Yes
Linoleic acid	60-33-3			
Oleic acid	112-80-1			
1-Butanol	71-36-3	DSL	Yes	Yes
1,2,4-Trimethylbenzene	95-63-6	DSL		Yes
Xylene	1330-20-7		Yes	Yes
Stoddard Solvent	8052-41-3		No	No

Components	CAS Number	Section 302 (EHS) TPQ	Section 304 EHS RQ lbs	CERCLA RQ lbs	Section 313	RCRA CODE	CAA 112(r) TQ
Isopropyl alcohol	67-63-0				313		
Linoleic acid	60-33-3						
Oleic acid	112-80-1						
1-Butanol	71-36-3			5,000	313	U031	
1,2,4-Trimethylbenzene	95-63-6				313		
Xylene	1330-20-7			100	313	U239	
Stoddard Solvent	8052-41-3						

Components	CAS Number	TSCA	EEC
Isopropyl alcohol	67-63-0	Yes	EINECS
1-Butanol	71-36-3	Yes	EINECS
1,2,4-Trimethylbenzene	95-63-6	Yes	EINECS
Xylene	1330-20-7	Yes	EINECS
Stoddard Solvent	8052-41-3	Yes	EINECS

## 16. OTHER INFORMATION

### Hazardous Material Information System (U.S.A.)



Issue Date: 01-Sept-2016  
Revision Date: N/A  
Revision Note: New Formula

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet