

**PRODUCT NAME:** ABRO Water Remover Fuel Dryer  
**PRODUCT NUMBER/SIZE:** WR-503-6-R

**Rev Date:** 2/13/2015

## SECTION 1 Identification of the Substance and of the Company/Undertaking

**MANUFACTURER'S NAME:** ABRO INDUSTRIES, INC.  
**ADDRESS:** 3580 Blackthorn Court  
South Bend, IN 46628  
USA  
**PRODUCT DESCRIPTION:** Fuel Additive  
**COMPANY PHONE:** 574-232-8289  
**EMERGENCY 24-HR TELEPHONE:** Chemtrec: US/Canada 1-800-424-9300  
International +1-703-527-3887

## SECTION 2 Hazards Identification

### Classification:

Flammable Liquids, Category 2  
Serious Eye Damage/Eye Irritation, Category 2A  
Specific Target Organ Toxicity (single exposure), Category 3

### Label Pictogram(s):



**Signal Word:** Danger

**Hazard Phrases:** Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.

**Precautionary Phrases:** Keep container tightly closed. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid breathing fume/gas/mist/vapors/spray.

**Response:** In case of fire, use approved materials to extinguish. IF ON SKIN: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. Call a POISON CENTER or doctor/physician if exposed or you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**Storage / Disposal:** Store in cool/well-ventilated place. Dispose of contents/container to approved locations in compliance with all applicable regulations. Store locked up. Store container tightly closed in well-ventilated place - if product is as volatile as to generate hazardous atmosphere.

**Other:** Keep out of reach of children.

### SECTION 3

#### Composition/Information on Ingredients

<b>COMPONENTS</b>	<b>CAS Number</b>	<b>Percent by weight</b>
Isopropanol	67-63-0	0.0 -100.0 %

### SECTION 4

#### First Aid Measures

##### **In Case of Inhalation**

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen. If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

##### **In Case of Skin Contact**

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

##### **In Case of Eye Contact**

Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for 15 minutes. If effects occur, consult a physician, preferably an ophthalmologist.

##### **In Case of Ingestion**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

##### **Note to Physician**

Maintain adequate ventilation and oxygenation of the patient. The decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Hemodialysis may be of benefit if substantial amounts have been ingested and the patient is showing signs of intoxication. Consider hemodialysis for patients with persistent hypotension or coma unresponsive to standard therapy (isopropanol levels >400 - 500 mg/dl). No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

##### **Signs and Symptoms of Exposure**

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue,

nausea, headache, unconsciousness), low blood pressure, mild, temporary changes in the liver, effects on heart rate, respiratory depression (slowing of the breathing rate), loss of coordination, confusion, lung edema (fluid buildup in the lung tissue), kidney damage, coma

## SECTION 5

### Fire Fighting Measures

**Flammability Classification:** Flammable Liquid Class IB

**Flash Pt:** 12.00 C (53.6 F) Method Used: Closed Cup

LEL: 2.5% at 25.0 C (77.0 F) UEL: 12% at 25.0 C (77.0 F)

**Explosive Limits:**

**Autoignition Pt:** 399.00 F (203.9 C)

#### Fire Fighting Instructions

Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water may not be effective in extinguishing fire. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Use caution and test if material is burning before entering area. Material burns with invisible flame. Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves) If protective equipment is not available or not used, fight fire from a protected location or safe distance.

#### Flammable Properties and Hazards

Container may vent and/or rupture due to fire. When product is stored in closed containers, a flammable atmosphere can develop. Electrically ground and bond all equipment. Flammable mixtures of this product are readily ignited even by static discharge. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Flammable mixtures may exist within the vapor space of containers at room temperature. Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9.

#### Hazardous Combustion Products

May form carbon dioxide and carbon monoxide.

#### Suitable Extinguishing Media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Straight or direct water streams may not be effective to extinguish fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

#### Unsuitable Extinguishing Media

Do not use direct water stream.

## SECTION 6

### Accidental Release Measures

#### Steps To Be Taken In Case Material Is Released or Spilled

Per good environmental management practices, prevent run-off to sewers, streams and other bodies of water. Stop spill at the source. Cover sewer grates and dike the spill. Absorb spilled material on to absorbents. Shovel materials into container. Close container tightly and dispose of properly. For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up

has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water.

**Protective Precautions, Protective Equipment and Emergency Procedures**

Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

**Environmental Precautions**

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

## SECTION 7

### Handling and Storage

**Precautions to Be Taken in Handling**

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

**Precautions to Be Taken in Storing**

Small quantities of peroxides may form on prolonged storage. Exposure to light and/or air significantly increases the rate of peroxide formation. If evaporated to a residue, the mixture of peroxides and isopropanol may explode when exposed to heat or shock.

## SECTION 8

### Exposure Controls/Personal Protection

<b>COMPONENTS</b>	<b>CAS Number</b>	<b>OSHA PEL</b>	<b>ACGIH TWA</b>	<b>Other Limits</b>
Isopropanol	67-63-0	PEL: 400 ppm	TLV: 200ppm STEL: 400 ppm	No data

**Respiratory Equipment (Specify Type)**

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

**Eye Protection**

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses.

**Protective Gloves**

Wear chemical-resistant gloves such as those made from nitrile rubber, PVC, latex, or neoprene.

**Other Protective Clothing**

To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**Engineering Controls (Ventilation etc.)**

Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

**Work/Hygienic/Maintenance Practices**

Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face before smoking or eating.

**SECTION 9**  
**Physical and Chemical Properties**

<b>Physical States:</b>	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid
<b>Melting Point:</b>	-89.00 C (-128.2 F)
<b>Boiling Point:</b>	82.00 C (179.6 F)
<b>Autoignition Pt:</b>	399.00 F (203.9 C)
<b>Flash Pt:</b>	12.00 C (53.6 F) Method Used: Closed Cup LEL: 2.5% at 25.0 C (77.0 F) UEL: 12% at 25.0 C (77.0F)
<b>Explosive Limits:</b>	
<b>Specific Gravity (Water = 1):</b>	0.787 at 20.0 C (68.0 F)
<b>Density:</b>	6.65 LBS/GAL at 60.0 F (15.6 C)
<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.
<b>Vapor Density (vs. Air = 1):</b>	2.1 G/CM3 at 77.0 F (25.0 C)
<b>Evaporation Rate:</b>	No data.
<b>Solubility in Water:</b>	Soluble
<b>Percent Volatile:</b>	No data.
<b>Viscosity:</b>	2.4 CPS at 20.0 C (68.0 F)
<b>Appearance and Odor:</b>	Colorless liquid with a pleasant odor.

**SECTION 10**  
**Stability and Reactivity**

**Stability:** Unstable ☐ Stable ☒

**Conditions to Avoid - Instability**

Exposure to elevated temperatures can cause product to decompose. Avoid static discharge.

**Incompatibility - Materials to Avoid**

Avoid contact with acetaldehyde, acids, aldehydes, alkalis, amines, chlorinated hydrocarbons, chlorine, ethylene oxide, halogens, isocyanates, strong acids, strong oxidizing agents, Do not use with aluminum equipment at temperatures above 120 degrees F.

**Hazardous Decomposition or Byproducts**

May form carbon dioxide and carbon monoxide

**Possibility of Hazardous Reactions:** Will occur ☐ Will not occur ☒

**Conditions to Avoid - Hazardous Reactions**

Hazardous polymerization will not occur.

## SECTION 11

### Toxicological Information

In animals, effects have been reported on the following organs: Liver. Kidney. Kidney effects have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans. Observations in animals include: Lethargy.

#### Developmental Toxicity:

Isopropanol has been toxic to the fetus in laboratory animals at doses toxic to the mother.

#### Reproductive Toxicity

In animal studies, did not interfere with reproduction.

#### Genetic Toxicology

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

CAS# 67-63-0:

Acute toxicity, LD50, Oral, Rat, 5045. MG/KG.

#### Results:

Behavioral: Altered sleep time (including change in righting reflex).

Behavioral: Somnolence (general depressed activity).

- Gigiena i Sanitariya, Mezhdunarodnaya Kniga, ul. B. Yakimanka, 39, 113095, Moscow 113095 Russia, Vol/p/yr: 43(1), 8, 1978

Acute toxicity, LD50, Oral, Mouse, 3600. MG/KG.

#### Results:

Behavioral: Altered sleep time (including change in righting reflex).

Behavioral: Somnolence (general depressed activity).

- Gigiena i Sanitariya, Mezhdunarodnaya Kniga, ul. B. Yakimanka, 39, 113095, Moscow 113095 Russia, Vol/p/yr: 43(1), 8, 1978

#### Sensitization

Did not demonstrate the potential for contact allergy in mice.

#### Carcinogenicity/Other Information

Did not cause cancer in laboratory animals.

<b>COMPONENTS</b>	<b>CAS Number</b>	<b>NTP</b>	<b>IARC</b>	<b>ACGIH</b>	<b>OSHA</b>
Isopropanol	67-63-0	n.a.	3	A4	n.a.

**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

## SECTION 12

### Ecological Information

#### General Ecological Information

Material is practically non-toxic to aquatic organisms on an acute basis.

CAS# 67-63-0:

LC50, Water Flea (Daphnia magna), 10000. MG/L, 24 H, Intoxication, Water temperature: 20.00 C (68.0 F) - 22.00 C (71.6 F) C, pH: 7.70, Hardness: 16.00 dH.

#### Results:

Age Effects.

- Results of the Damaging Effect of Water Pollutants on Daphnia magna (Befunde der Schadwirkung

Wassergefährdender Stoffe Gegen Daphnia magna), Bringmann, G., and R. Kuhn, 1977

#### **Results of PBT and vPvB assessment**

No data available.

#### **Persistence and Degradability**

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

#### **Bioaccumulative Potential**

Bioconcentration potential is low (BCF less than 100 or log Pow less than 3)

#### **Mobility in Soil**

Potential for mobility in soil is very high (Koc between 0 and 50).

Henry's Law Constant (H): 3.38E-6 - 8.07E-6 atm\*m3/mole; 25 deg C Estimated

Partition coefficient, n-octanol/water (log Pow) 0. 05 Measured

Partition coefficient, soil organic carbon/water (Koc): 1.1 Estimated

### **SECTION 13** **Disposal Considerations**

#### **Waste Disposal Method**

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

**RCRA Waste ID Code:** D001

### **SECTION 14** **Transport Information**

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

**U.S. DOT**      UN/ID Number: UN1219  
Proper shipping name: Isopropanol [or] Isopropyl alcohol  
Hazard class: 3  
Packing Group: II  
Exceptions: May be shipped as a limited quantity or consumer commodity  
Environmental Hazards:  
Transport in Bulk:  
Special Precautions:

**IMO/IMDG**      UN/ID Number: UN1219  
Proper shipping name: Isopropanol [or] Isopropyl alcohol  
Hazard class: 3  
Packing Group: II  
Exceptions: May be shipped as a limited quantity

Environmental Hazards:  
Transport in Bulk:  
Special Precautions:

**ICAO/IATA** UN/ID Number: UN1219  
Proper shipping name: Isopropanol [or] Isopropyl alcohol  
Hazard Class: 3  
Packing Group: II  
Exceptions: May be shipped as a limited quantity  
Environmental Hazards:  
Transport in Bulk:  
Special Precautions:

**Canada (TDG)** UN/ID Number: UN1219  
Proper shipping name: Isopropanol [or] Isopropyl alcohol  
Hazard class: 3  
Packing Group: II  
Exceptions: May be shipped as a limited quantity or consumer commodity  
Environmental Hazards:  
Transport in Bulk:  
Special Precautions:

**Europe (ADR/RID)** UN/ID Number: UN1219  
Proper shipping name: Isopropanol [or] Isopropyl alcohol  
Hazard class: 3  
Packing Group: II  
Exceptions: May be shipped as a limited quantity  
Environmental Hazards:  
Transport in Bulk:  
Special Precautions:

## SECTION 15 Regulatory Information

### US EPA SARA Title III

<u>COMPONENTS</u>	<u>CAS Number</u>	<u>Sec.302 (EHS)</u>	<u>Sec.304 RQ</u>	<u>Sec.313 (TRI)</u>	<u>Sec.110</u>
Isopropanol	67-63-0	No	No	Yes	No

### US EPA CAA, CWA, TSCA

<u>COMPONENTS</u>	<u>CAS Number</u>	<u>EPA CAA</u>	<u>EPA CWA NPDES</u>	<u>EPA TSCA</u>	<u>CA PROP 65</u>
Isopropanol	67-63-0	No	No	Inventory, 4 Test	No

### SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:

**Sec.302:** EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. \* indicates 10000 LB TPQ if not volatile.

**Sec.304:** EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. \*\* indicates statutory RQ



**Sec.313:** EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.

**Sec.110:** EPA SARA 110 Superfund Site Priority Contaminant List

**TSCA (Toxic Substances Control Act) Lists:**

**Inventory:** Chemical Listed in the TSCA Inventory.

**5A (2):** Chemical Subject to Significant New Rules (SNURS)

**6A:** Commercial Chemical Control Rules

**8A:** Toxic Substances Subject To Information Rules on Production

**8A CAIR:** Comprehensive Assessment Information Rules - (CAIR)

**8A PAIR:** Preliminary Assessment Information Rules - (PAIR)

**8C:** Records of Allegations of Significant Adverse Reactions

**8D:** Health and Safety Data Reporting Rules

**8D TERM:** Health and Safety Data Reporting Rule Terminations

**12(b):** Notice of Export

**Other Important Lists:**

**CWA NPDES:** EPA Clean Water Act NPDES Permit Chemical

**CAA HAP:** EPA Clean Air Act Hazardous Air Pollutant

**CAA ODC:** EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)

**CA PROP 65:** California Proposition 65

**International Regulatory Lists:**

**EPA Hazard Categories:**

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

☒ Yes ☐ No Acute (immediate) Health Hazard

☐ Yes ☒ No Chronic (delayed) Health Hazard

☒ Yes ☐ No Fire Hazard

☐ Yes ☒ No Sudden Release of Pressure Hazard

☐ Yes ☒ No Reactive Hazard

**HMIS**

Health – 1

Flammability – 3

Physical – 0

PPE – B

**NFPA**

Health – 1

Flammability – 3

Instability – 0

Special Hazard -

## SECTION 16

### Other Information

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no

representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

**ABBREVIATIONS:**

NG="NOT GIVEN"

<="LESS THAN"

ND = Not Determined

BT="BETWEEN"

>="GREATER THAN"

NA = Not Applicable