

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 1.2

#### **SECTION 1: Identification**

#### 1.1. Identification

Product form : Mixture

Product name : Fuel System Dryer & Corrosion Inhibitor

Product code : 92015

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Gasoline additive

#### 1.3. Supplier

Bardahl Pro 1400 NW 52nd Street Seattle, 98107 - USA T 206-783-4851 - F 206-784-3219 www.bardahl.com Contact:Jackie Leung

#### 1.4. Emergency telephone number

Emergency number : 800-424-9300

### **SECTION 2: Hazard(s) identification**

### 2.1. Classification of the substance or mixture

#### **GHS-US** classification

Flammable liquids, Category 2

Serious eye damage/eye irritation, Category 2 Specific target organ toxicity — Single exposure, Category 3, Narcosis Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness.

#### 2.2. GHS Label elements, including precautionary statements

#### **GHS US labelling**

Hazard pictograms (GHS US)





Signal word (GHS US) : Danger

Hazard statements (GHS US) : Highly flammable liquid and vapour.

Causes serious eye irritation.

May cause drowsiness or dizziness.

Precautionary statements (GHS US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

Keep container tightly closed.

Ground/Bond container and receiving equipment. Use explosion-proof electrical equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing mist, vapours.

Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear eye protection, protective gloves.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower

If inhaled: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. Call a doctor if you feel unwell.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use alcohol resistant foam, BC-powder, carbon dioxide (CO2) to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container to hazardous or special waste collection point, in accordance

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with local, regional, national and/or international regulation.

#### 2.3. Other hazards which do not result in classification

No additional information available

#### Unknown acute toxicity (GHS US)

Not applicable

## **SECTION 3: Composition/information on ingredients**

Not applicable

#### 3.2. **Mixtures**

Name	Product identifier	%	GHS-US classification
Isopropyl Alcohol	(CAS-No.) 67-63-0	≥ 80	Flam. Liq. 2, H225 Eve Irrit. 2. H319
			STOT SE 3, H336

Full text of hazard classes and H-statements : see section 16

#### **SECTION 4: First-aid measures**

#### **Description of first aid measures**

First-aid measures general : Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing.

First-aid measures after eye contact 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 a doctor if you feel unwell. First-aid measures after ingestion

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after eye contact : Eye irritation.

# Immediate medical attention and special treatment, if necessary

Treat symptomatically.

# **SECTION 5: Fire-fighting measures**

#### Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

#### 5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapour. Hazardous decomposition products in case of

: Toxic fumes may be released.

#### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

**Emergency procedures** 

: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing mist, spray. Avoid contact with skin and eyes.

#### For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### **Environmental precautions**

Avoid release to the environment.

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#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters.

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

## **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing mist, spray. Avoid contact with skin and

eyes

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

Fuel System Dryer & Corrosion Inhibitor	
No additional information available	
Isopropyl Alcohol (67-63-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Propanol
ACGIH TWA (ppm)	200 ppm
ACGIH STEL (ppm)	400 ppm
Remark (ACGIH)	Eye & URT irr; CNS impair
USA - OSHA - Occupational Exposure Limits	
Local name	Isopropyl alcohol
OSHA PEL (TWA) (mg/m³)	980 mg/m³
OSHA PEL (TWA) (ppm)	400 ppm

# 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

# 8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

# Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

## Personal protective equipment symbol(s):

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# **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

: Liquid Physical state Colour : Colourless Odour : characteristic Odour threshold No data available No data available pΗ Melting point : Not applicable Freezing point No data available Boiling point : No data available Flash point ≥ 12 °C minimum Relative evaporation rate (butylacetate=1) : No data available Flammability (solid, gas) : Not applicable. Vapour pressure : No data available Relative vapour density at 20 °C : No data available Relative density No data available 0.81 g/cm3 typical Density Solubility : No data available Partition coefficient n-octanol/water (Log Pow) No data available : No data available Auto-ignition temperature : No data available Decomposition temperature

Viscosity, kinematic : 1 mm²/s @ 40 C estimated

Viscosity, dynamic : No data available
Explosive limits : No data available
Explosive properties : No data available
Oxidising properties : No data available

### 9.2. Other information

No additional information available

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Highly flammable liquid and vapour.

## 10.2. Chemical stability

Stable under normal conditions.

# 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

# 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

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Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

sopropyl Alcohol (67-63-0)	
LD50 oral rat	5840 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	16400 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (ppm)	> 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (oral)	5840 mg/kg bodyweight
ATE US (dermal)	16400 mg/kg bodyweight

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

STOT-single exposure : May cause drowsiness or dizziness.

Isopropyl Alcohol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

Viscosity, kinematic : 1 mm²/s @ 40 C estimated

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after eye contact : Eye irritation.

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

Isopropyl Alcohol (67-63-0)	
LC50 fish 1	9640 – 10000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)

# 12.2. Persistence and degradability

Isopropyl Alcohol (67-63-0)	
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.19 g O₂/g substance
Chemical oxygen demand (COD)	2.23 g O₂/g substance
ThOD	2.4 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

Isopropyl Alcohol (67-63-0)	
Partition coefficient n-octanol/water (Log Pow)	0.05 (Weight of evidence approach, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

# 12.4. Mobility in soil

Isopropyl Alcohol (67-63-0)	
Surface tension	0.021 N/m (25 °C)
Partition coefficient n-octanol/water (Log Koc)	0.185 – 0.541 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

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#### 12.5. Other adverse effects

No additional information available

# **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information : Flammable vapours may accumulate in the container.

### **SECTION 14: Transport information**

### **Department of Transportation (DOT)**

In accordance with DOT

Not applicable

### **Transportation of Dangerous Goods**

#### Transport by sea

Transport document description (IMDG) : UN 1993 FLAMMABLE LIQUID, N.O.S., 3, III

UN-No. (IMDG) : 1993

Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N.O.S.

Class (IMDG) : 3 - Flammable liquids

Packing group (IMDG) : III - substances presenting low danger

Limited quantities (IMDG) : 5 L

Air transport

# **SECTION 15: Regulatory information**

# 15.1. US Federal regulations

## Isopropyl Alcohol (67-63-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

### 15.2. International regulations

# CANADA

#### **EU-Regulations**

#### **National regulations**

No additional information available

# 15.3. US State regulations

Component	State or local regulations
Isopropyl Alcohol(67-63-0)	U.S New Jersey - Right to Know Hazardous Substance List

# **SECTION 16: Other information**

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NFPA fire hazard

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NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

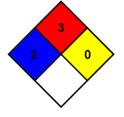
3 - Liquids and solids (including finely divided suspended

solids) that can be ignited under almost all ambient

temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even

under fire conditions.



Hazard Rating

**Physical** 

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature

conditions. Includes flammable liquids with flash points below 73 F and boiling points above

100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT

react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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