



# Safety Data Sheet

## Section 1 – Identification of the Mixture and of the Company

### Product Identification

#### Primary Identifier(s) Used on the Label

Berryman *ALL-SEASON DIESEL FUEL TREATMENT*

#### Product Synonym(s)

blend "ASD"

#### Product Number(s)

0512

### Relevant Identified Uses and Uses Advised Against

#### Recommended Uses

diesel fuel additive

#### Uses Advised Against

not for use in gasoline

### Manufacturer/Supplier Details

Berryman Products, Inc.

3800 E Randol Mill Rd

Arlington, TX 76011

(800) 433-1704 (USA/Canada)

(817) 640-2376 (international)

www.BerrymanProducts.com

### Emergency 24-Hour Telephone Number(s) – InfoTrac, Inc.

(800) 535-5053 (USA/Canada)

(352) 323-3500 (international)

## Section 2 – Hazards Identification

### Classification of the Substance or Mixture (29 CFR 1910.1200)

#### Physical Hazards

Flammable Liquid – Category 3

#### Health Hazards

Acute Inhalation – Category 4

Eye Irritant – Category 2A

Carcinogen – Category 2

Specific Target Organ Toxicity - Single Exposure – Category 3 (respiratory tract irritant and narcotic effects)

Specific Target Organ Toxicity - Repeated Exposure – Category 2 (blood/blood system, central nervous system, hearing, kidneys, liver)

Aspiration Hazard – Category 1

Environmental Hazard - Chronic – Category 1

### Allocation of Label Elements

#### Chemical Identity

Berryman *ALL-SEASON DIESEL FUEL TREATMENT*

#### Pictograms



#### Signal Word

DANGER

**Hazard Statements**

H226 – Flammable liquid and vapor.

H304 – May be fatal if swallowed and enters airways.

H319 – Causes serious eye irritation.

H321 – Specific treatment (see supplemental first aid instructions this label/document).

H332 – Harmful if inhaled.

H335 – May cause respiratory irritation.

H336 – May cause drowsiness or dizziness.

H351 – Suspected of causing cancer.

H373 – May cause damage to blood/blood system, central nervous system, hearing, kidneys, and liver through prolonged or repeated exposure.

H410 – Very toxic to aquatic life with long-lasting effects.

**Prevention Precautionary Statements**

P101 – Keep out of reach of children.

P102 – Read label before use.

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, and hot surfaces. No smoking.

P235 – Keep cool.

P240 – Ground/bond container and receiving equipment. Special precautions may be necessary for non-conductive containers.

P241 – Use explosion-proof electrical, ventilation, and lighting equipment.

P242 – Use only non-sparking tools, such as brass or bronze.

P243 – Take precautionary measures against static discharge.

P260 – Do not breathe fumes, gas, mist, vapor, or spray.

P264 – Wash thoroughly with soap and water after handling.

P271 – Use only outdoors or in a well-ventilated area.

P273 – Avoid release to the environment.

P280 – Wear protective gloves, protective clothing, and eye or face protection.

**Response Precautionary Statements**

P312 – Call POISON CONTROL CENTER, hospital emergency room, or doctor if you feel unwell.

P314 – Get medical advice/attention if you feel unwell.

P321 – Specific treatment available in this document in “Section 4 – First Aid Measures.”

P331 – Do NOT induce vomiting.

P391 – Collect spillage.

P301/P310 – IF SWALLOWED: Immediately call POISON CONTROL CENTER, hospital emergency room, or doctor.

P303/P361/P353 – IF ON SKIN (OR HAIR): Immediately take off all contaminated clothing. Rinse skin with soap and 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.

P308/P313 – If exposed or concerned, get medical advice/attention.

P337/P313 – If eye irritation persists, get medical advice/attention.

P370/P378 – In case of fire, use water fog, dry chemical, alcohol-resistant foam, or carbon dioxide to extinguish.

**Storage Precautionary Statements**

P405 – Store locked-up.

P403/P233 – Store in a well-ventilated place. Keep container tightly closed.

**Disposal Precautionary Statements**

P501 – Dispose of contents/container in accordance with local, regional, national, and international regulations, as applicable.

**Hazards Not Otherwise Classified**

none known

**Ingredients of unknown acute toxicity**

<5% of this mixture consists of an ingredient(s) of unknown acute toxicity.

**Section 3 – Composition/Information on Ingredients**

<u>Component</u>	<u>CAS RN</u>	<u>Weight</u>
Petroleum Distillates	64742-88-7	80-85%
Petroleum Distillates	64742-94-5	5-10%
1,2,4-Trimethylbenzene	95-63-6	2-6%
2-Ethylhexanol	104-76-7	<2%
Naphthalene	91-20-3	<1%

## Section 4 – First Aid Measures

### Description of First Aid Measures

#### Ingestion

Immediately call poison control center, hospital emergency room, or doctor. Do NOT induce vomiting. Drink 1-2 glasses of milk or water.

#### 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.

#### Skin Contact

Immediately take off all contaminated clothing. Rinse skin with soap and water or shower.

#### Inhalation

Remove person to fresh air and keep comfortable. If experiencing respiratory symptoms or if breathing is difficult, administer oxygen and call poison control center, hospital emergency room, or doctor.

### Most Important Symptoms and Effects

#### Acute/Immediate

respiratory tract irritation; headache and lightheadedness; narcotic effects, including dizziness, drowsiness, and loss of coordination; nausea and vomiting

#### Delayed

drying, cracking, or defatting of the skin

### Indications of Need for Immediate Medical Attention and Specific Treatment Required

#### Indications of Need for Immediate Medical Attention

In the event of shortness of breath, difficulty breathing, spontaneous vomiting, severe headache, or loss of consciousness, seek immediate medical attention.

#### Specific Treatment and Notes to Physician

If performing lavage, endotracheal and/or esophageal control is recommended. If spontaneous vomiting occurs, keep head below hips to avoid aspiration.

## Section 5 – Firefighting Measures

### Fire Extinguishing Media

#### Support for Combustion

Product supports combustion.

#### Suitable Extinguishing Media

water fog, dry chemical, alcohol-resistant foam, or carbon dioxide

#### Unsuitable Extinguishing Media

water jet/spray (may cause product to float to surface and reignite)

### Special Hazards/Considerations

#### Combustion Products

Combustion in the presence of air may yield hydrocarbons, organic oxygenates, ammonia, amines, and oxides of carbon and nitrogen.

### Special Protective Equipment and Precautions for Firefighters

#### Special Protective Equipment

Firefighters should employ SCBA and full protective gear, including shield, as product may vent, rupture, or explode violently at elevated temperatures.

#### Precautions and Procedures

Flammable liquid and vapor. Vapors heavier than air. Remove product from area if safe to do so. Use water spray to cool nearby containers.

### Additional Information

#### National Fire Protection Association (NFPA)

flammable liquid classification II

## Section 6 – Accidental Release Measures

### Personal and Environmental Precautions

#### Personal Precautions

Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Special precautions may be necessary for non-conductive containers. Use explosion-proof electrical, ventilation, and lighting equipment. Use only non-sparking tools, such as brass or bronze. Do not breathe fumes, gas, mist, vapor, or spray. Wash thoroughly with soap and water after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, and eye or face protection.

#### Environmental Precautions

Avoid release to the environment.

**Materials and Methods for Containment****Small Spills**

Use socks/absorbent mini-booms or other inert barrier if necessary to contain small spills.

**Large Spills**

Utilize large socks/absorbent booms or other inert barrier to form dam/dike in order to contain spill and prevent further loss.

**Materials and Methods for Cleanup****Small Spills**

Remove source from area if safe to do so. Use granular sorbent, gel sorbent, vermiculite, cat litter, dirt/earth, pads/rolls, or pillows to absorb spilled material. Other useful supplies may include a mop and mop bucket. Remediate affected area as necessary.

**Large Spills**

Keep upwind from spill. Remove source from area if safe to do so. Use a mop and mop bucket or explosion-proof transfer equipment to recover spilled material. Use granular sorbent, gel sorbent, vermiculite, cat litter, dirt/earth, pads/rolls, or pillows to absorb residual material. Remediate affected area as necessary.

**Section 7 – Handling and Storage****Precautions for Safe Handling****Personal Precautions**

Do not handle until all safety precautions have been read and understood. Do not breathe fumes, gas, mist, vapor, or spray. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, and eye or face protection. Wash thoroughly with soap and water after handling.

**Environmental Precautions**

Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Special precautions may be necessary for non-conductive containers. Use explosion-proof electrical, ventilation, and lighting equipment. Use only non-sparking tools, such as brass or bronze. Avoid release to the environment.

**Conditions and Considerations for Safe Storage**

Flammable liquid and vapor. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Keep out of reach of children. Store locked-up and in accordance with NFPA flammable liquid classification II recommendations.

**Section 8 – Exposure Controls/Personal Protection**

<u>Component</u>	<u>CAS RN</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Petroleum Distillates (as "Stoddard Solvent")	64742-88-7	500 ppm	500 ppm
1,2,4-Trimethylbenzene	95-63-6	25 ppm	25 ppm
Naphthalene	91-20-3	10 ppm	10 ppm

**Exposure Controls****Appropriate Engineering Controls**

If practical, use outside with adequate ventilation to minimize exposure.

**PPE Overview****Hand Protection**

Use of chemical-resistant gloves (EVAL, neoprene, nitrile/Buna-N, PVA, PVC, or Viton) is recommended.

**Eye Protection**

Use of safety glasses with wrap-around lens or goggles is recommended.

**Respiratory Protection**

If necessary, use respiratory protection sufficient to reduce exposure to permissible limits.

**Additional Protection**

For industrial settings, access to a chemical safety shower with eye wash station is strongly recommended.

**Section 9 – Physical and Chemical Properties****Information on Basic Physical and Chemical Properties****Physical State**

liquid

**Appearance**

clear, light amber

**Odor**

mild, solvent

**Odor Threshold**

<1 ppm

**pH**

not relevant

**Freezing Point**

<-6°F

**Boiling Range**

300 - 410°F

**Flash Point and Method**

105°F by closed-cup tester

**Explosion Limits in Air**

0.7 - 7.0% by volume

**Evaporation Rate**

0.1 (n-Butyl Acetate=1.0)

**Vapor Pressure, as supplied**

0.8 mm of Hg at 68°F

**Vapor Density**

>1.0

**Specific Gravity**

0.80 at 68°F

**Density**

6.7 lb/gal at 68°F

**Water Solubility**

insoluble

**n-Octanol/Water Partition Coefficient (log P<sub>ow</sub>)**

4.4 (composite)

**Viscosity**

2 cSt at 68°F

**Volatility**

90 - 95% by weight

**Auto-ignition temperature**

570°F (composite)

## Section 10 – Stability and Reactivity

### Chemical Stability under Normal Conditions of Use

**Chemical Stability**

Stable under normal conditions of use.

**Conditions Affording Instability**

none known

### Reactivity

not expected

### Possibility of Hazardous Reactions

none known

### Conditions to Avoid

Keep away from heat, sparks, open flames, and hot surfaces. No smoking. If practical, avoid temperatures exceeding flash point.

### Incompatible Materials

strong acids; oxidizers; reducing agents

### Hazardous Decomposition Products

none known

## Section 11 – Toxicological Information

### Likely Routes of Exposure

ingestion, skin contact, eye contact, inhalation

### Symptoms Related to Physical, Chemical, and Toxicological Characteristics

**Ingestion**

**Large Quantity**

gastrointestinal disturbances, including upset stomach, cramping, nausea, vomiting, and diarrhea

**Small Quantity/Incidental Contact**

gastrointestinal disturbances, including upset stomach and cramping

**Skin Contact**

mild skin irritation

**Eye Contact**

blurred vision, moderate eye irritation

**Inhalation**

respiratory tract irritation; headache, lightheadedness; narcotic effects, including dizziness, drowsiness, and loss of coordination; nausea and vomiting

**Immediate, Delayed, and Chronic Effects**

***SHORT-TERM EXPOSURE***

**Potential Immediate Effects**

**Ingestion**

gastrointestinal disturbances; nausea and vomiting

**Skin Contact**

drying of the skin

**Eye Contact**

blurred vision, temporary corneal damage

**Inhalation**

shortness of breath or difficulty breathing, headache, dizziness, nausea and vomiting, drowsiness, fatigue, and death

**Potential Delayed Effects**

**Ingestion**

aspiration pneumonitis, cyanosis, death

**Skin Contact**

defatting of the skin, drying and cracking of the skin, aggravation of pre-existing skin conditions

**Eye Contact**

temporary corneal damage

**Inhalation**

fatigue

***LONG-TERM EXPOSURE***

**Potential Immediate Effects**

none known

**Potential Delayed Effects**

brain/central nervous system (CNS) effects, hearing loss, kidney damage, liver damage

**Potential Chronic Health Effects**

**Carcinogenicity**

**International Agency for Research on Cancer (IARC) Monographs**

Group 2B – Possible Human Carcinogen (Naphthalene)

**National Toxicology Program (NTP) Report on Carcinogens**

Reasonably Anticipated to Be a Human Carcinogen (Naphthalene)

**Occupational Safety & Health Administration (OSHA)**

not listed

**Mutagenicity / Genetic Toxicity**

not suspected of being a human mutagen / genetic toxicant

**Teratogenicity**

not suspected of being a human teratogen

**Developmental Effects**

not suspected of being a developmental toxicant

**Fertility Effects**

not suspected of being a reproductive/fertility toxicant

**Effects on Lactation**

not suspected of affecting lactation

***SPECIFIC TARGET ORGAN TOXICITY (STOT)***

**Single Exposure**

central nervous system (narcotic effects), respiratory tract (irritation)

**Repeated Exposure**

blood/blood system, brain/central nervous system (CNS), hearing, kidneys, and liver effects

**Numerical Measures of Acute Toxicity**

**Oral**

LD<sub>50</sub>: >5000 mg/kg (derived)

**Dermal**

LD<sub>50</sub>: 2090 mg/kg (derived)

**Inhalation**

LC<sub>50</sub>: 20 mg/L (derived)

## Additional Toxicological Information

### Skin Irritation/Corrosion (Rabbit)

slight skin irritant

### Serious Eye Damage/Irritation (Rabbit)

eye irritant

### Respiratory Sensitization

does not cause respiratory sensitization

### Skin Sensitization

does not cause skin sensitization

### Aspiration Hazard

known aspiration hazard

## Section 12 – Ecological Information

### General Ecological Assessment/Overview

Very toxic to aquatic life with long-lasting effects.

### Aquatic Toxicity

#### Vertebrates (Fish)

##### Acute Toxicity

LC<sub>50</sub>: 18 mg/L (derived)

##### Chronic Toxicity

NOEC: not available

#### Invertebrates (Water Flea)

##### Acute Toxicity

LC<sub>50</sub>: 3.2 mg/L (derived)

##### Chronic Toxicity

NOEC: not available

#### Aquatic Plants (Freshwater Algae)

##### Acute Toxicity

EC<sub>50</sub>: 3.4 mg/L (derived)

##### Chronic Toxicity

NOEC: not available

### Terrestrial Toxicity

#### Invertebrate (Earthworm)

LC<sub>50</sub>: not available

### Persistence and Degradability

#### Persistence

not expected to be persistent

#### Degradability

non-rapidly degradable

### Bioaccumulative Potential

#### Bioaccumulation Potential Assessment

does not bioaccumulate

#### Bioaccumulation Factor

180 (“Petroleum Distillates”)

### Mobility in Soils

#### Mobility in Soils Assessment

not mobile in soils

#### Soil Organic Carbon/Water Partition Coefficient (log K<sub>oc</sub>)

not available

### Results of PBT and vPvB Assessment

not a persistent, bioaccumulative, toxic chemical (PBT)

not very persistent and very bioaccumulative (vPvB)

### Other Adverse Effects

none known

## Section 13 – Disposal Considerations

### General Assessment/Overview

Dispose of waste in accordance with all applicable regulations. Very toxic to aquatic life with long-lasting effects—do not pour into waterways. Flammable liquid and vapor—do not pour down drain.

### RCRA Hazardous Waste Code(s) (40 CFR 261.20-33)

Based on this material as-supplied, used or unwanted product may be subject to RCRA regulations and classified as D001 – ignitable waste

## Section 14 – Transportation Information

### Transportation by Ground – US Department of Transportation

#### Shipping Description

UN1993, Flammable Liquids, n.o.s., (contains Petroleum Distillates), 3, PG III

#### Exemption Eligibility

When shipped by ground, this product may be eligible for a “Limited Quantity” exception per §49 CFR 173.150.

### Transportation by Air – ICAO/IATA

#### Shipping Description

UN1993, Flammable Liquids, n.o.s., (contains Petroleum Distillates), 3, PG III

### Transportation by Water – IMO/IMDG

#### Shipping Description

UN1993, Flammable Liquids, n.o.s., (contains Petroleum Distillates), 3, PG III

#### Exemption Eligibility

When shipped by water, this product may be eligible for a “Limited Quantity” exception.

## Section 15 – Regulatory Information

### Safety, Health, and Environmental Regulations/Legislation

#### *UNITED STATES – SELECT FEDERAL REGULATIONS*

#### Environmental Protection Agency (EPA)

##### **Toxic Substances Control Act (TSCA) (15 USC 2601, et seq.)**

All chemicals known to be present in this product are either listed on the TSCA inventory or are not required to be.

##### **SARA Title III (42 USC 9601, et seq.)**

###### **Section 302 – Extremely Hazardous Substances (40 CFR 355)**

none

###### **Section 304 – Emergency Release Notification (40 CFR 302.4)**

Naphthalene

###### **Section 311/312 – Hazard Categorization (40 CFR 370.40)**

acute toxicity, chronic toxicity, fire hazard

###### **Section 313 – Toxic Chemicals (40 CFR 372.65)**

Naphthalene

##### **Clean Air Act (42 USC 7401, et seq.)**

###### **Section 112 – Hazardous Air Pollutants**

none

###### **Regulation of Fuels and Fuel Additives**

This product complies with the requirements of §40 CFR 80 and must be used in a manner consistent with the directions on the product label.

#### Occupational Safety & Health Administration (OSHA)

##### **Hazard Communication Standard**

This safety data sheet (SDS) is provided for compliance with applicable regulations of the Hazard Communication Standard of 2012 (HCS/HAZCOM 2012) found in §29 CFR 1910.1200. Federal law requires persons receiving this document to study it carefully, become aware of the hazards of this product, and notify all employees, visitors, agents, and contractors of the information contained herein.

#### Consumer Product Safety Commission

##### **Federal Hazardous Substances Act**

This product is regulated under the Federal Hazardous Substances Act, is subject to the labeling requirements of 16 CFR 1500, and must include at minimum the following cautionary statements: DANGER: Combustible. Harmful or fatal if swallowed. Eye and skin irritant. Keep out of the reach of children.



**UNITED STATES – SELECT REGIONAL CONSIDERATIONS****Ozone Transport Commission (OTC) – Model Rule VOC Limit and Category**

not regulated as a fuel additive

**Lake Michigan Air Directors Consortium (LADCO) – Model Rule VOC Limit and Category**

not regulated as a fuel additive

**UNITED STATES – SELECT STATE REGULATIONS****California**

Office of Environmental Health Hazard Assessment (OEHHA)

**Proposition 65 – Safe Drinking Water and Toxic Enforcement Act of 1986**

This product is subject to the labeling requirements of Proposition 65 – Safe Drinking Water and Toxic Enforcement Act of 1986 and must bear the cautionary statement: WARNING! This product contains a chemical known to the State of California to cause cancer.

Air Resources Board (ARB/CARB)

**Regulation for Reducing Emissions from Consumer Products – VOC Limit and Category**

not regulated as a fuel additive

**Massachusetts****"Right-to-Know" Legislation – Substance List (105 CMR 670.000)**

2-Ethylhexanol, 1,2,4-Trimethylbenzene, Naphthalene

**New Jersey****"Right-to-Know" Legislation – Hazardous Substance List (34:5A-1, et seq.)**

1,2,4-Trimethylbenzene, Naphthalene

**Pennsylvania****"Right-to-Know" Legislation – Hazardous Substance List (Chapter 323)**

2-Ethyl-1-hexanol, 1,2,4-Trimethylbenzene, Naphthalene

**INTERNATIONAL – SELECT REGULATIONS****Canada**

Environment Canada – Domestic Substances List (DSL)

All chemicals known to be present in this product are either listed on the DSL or are not required to be.

**China**

Ministry of Environmental Protection – Inventory of Existing Chemical Substances Produced or Imported in China (IECSC)

All chemicals known to be present in this product are either listed on the IECSC or are not required to be.

**European Union**

European Chemical Agency – European Inventory of Existing Chemical Substances (EINECS)

All chemicals known to be present in this product are either listed on the EINECS or are not required to be.

**Chemical Safety Assessment**

has not been conducted on product, as-supplied

**Section 16 – Other Information****Hazardous Materials Information System (HMIS)**

Health	* 2	<b>Hazard Index</b>
Flammability	2	Least - 0
Reactivity	0	Slight - 1
Protective Equipment	B	Moderate - 2
		High - 3
		Extreme - 4

**Index of Abbreviations**

ACGIH – American Council of Governmental and Industrial Hygienists

CAS RN – Chemical Abstracts Service Registry Number

EC<sub>50</sub> – Median Effective Concentration

IATA – International Air Transport Association

ICAO – International Civil Aviation Organization

IMDG – International Maritime Dangerous Goods

IMO – International Maritime Organization

LC<sub>50</sub> – Median Lethal ConcentrationLD<sub>50</sub> – Median Lethal Dose

N/A – Not Applicable

NE – Not Established

NOEC – No Observable Exposure Concentration

PEL – Permissible Exposure Limit (as required by OSHA)

TLV – Threshold Limit Value (as recommended by ACGIH)

VOC – Volatile Organic Compound

**Relevant Dates and Applicability**

**Date of Issuance**

July 13, 2015

**Date of Previous Revision**

not applicable—initial Safety Data Sheet

**Primary Revision Change(s)**

not applicable

**Document Applicability**

This safety data sheet only applies to part number 0512 manufactured on or after January 1, 2015.

**Document Author**

Dan Nowlan

**Legal Disclaimer**

The information contained in this document is, to the best of Berryman Products, Inc.'s knowledge, complete and accurate but is not warranted. All materials may present unknown hazards and should be used with caution. It is the responsibility of the user to evaluate the information in a prudent manner and to use it in a manner consistent with its intended purpose. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.