

# MATERIAL SAFETY DATA SHEET

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### Product Identification

Product Name: FPS Premium Winter  
Synonyms: Diesel fuel additive  
Chemical Name: Proprietary Mixture  
Chemical Family: Diesel Fuel Additive  
CAS Number: Blend

### Company Identification

Manufactured for:  
Fuel Performance Solutions  
P.O. Box 903  
Chesterton, IN 46304 USA  
1-412-829-1990 (For product information)  
1-800-424-9300 (For emergencies)  
1-800-424-9300 or 1-703-527-3887 (CHEMTREC)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### **COMPONENT LISTING:**

<u>Chemical Name</u>	<u>Amount</u>	<u>CAS Number</u>
SOLVENT NAPHTHA, PETROLEUM, LIGHT AROM.	30.0 - 60.0 %	64742-95-6
1,2,4-TRIMETHYLBENZENE	< 20.0 %	95-63-6
2-BUTOXYETHANOL	10.0 - 30.0 %	111-76-2
XYLENE	< 3.0 %	1330-20-7
TRIMETHYLBENZENE	< 2.0 %	25551-13-7
2-ETHYLHEXYL NITRATE	1.0 - 5.0 %	27247-96-7
CUMENE	< 1.0 %	98-82-8
ETHYLBENZENE	< 0.5 %	100-41-4
NAPHTHALENE	< 0.3 %	91-20-3
VINYL ACETATE MONOMER	< 0.1 %	108-05-4

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)

### **SARA 311 Categories:**

Immediate (Acute) Health Effects....: Yes  
Delayed (Chronic) Health Effects....: Yes  
Fire Hazard.....: Yes  
Sudden Release Of Pressure Hazard...: No  
Reactivity Hazard.....: Yes

### 3. HAZARDS IDENTIFICATION

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***** EMERGENCY OVERVIEW *****  
*  
* WARNING *  
*  
* Combustible liquid. Keep away from sparks and open *  
* flames. When heated above 100 Deg C, may undergo *  
* an exothermic reaction which causes a rapid rise in *  
* temperature and pressure. Rupture of storage *  
* vessels and fire should be anticipated in case of *  
* such temperature. Can cause severe lung damage and *  
* may be fatal if swallowed. May cause central *  
* nervous system depression. *  
* *  
*****
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HMIS Rating - Health: 2  
Flammability: 2  
Reactivity: 1

NFPA Rating - Health: 2  
Flammability: 2  
Reactivity: 1

#### POTENTIAL HEALTH EFFECTS

##### EYE:

May cause eye irritation or discomfort.

##### SKIN:

Harmful if absorbed through the skin. Prolonged or repeated contact may result in drying of the skin which may result in skin irritation and dermatitis.

##### INHALATION:

Vapor inhalation and/or skin absorption can cause central nervous system effects, including dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Chronic exposures may cause hearing loss, irregular heart rhythms and potential cardiac arrest.

Moderately irritating to respiratory tract.

##### INGESTION:

Liquid can directly enter the lungs when swallowed or vomited. Serious lung damage and possibly fatal chemical pneumonia can develop if this occurs.

(section 3 continued)

**SIGNS AND SYMPTOMS OF EXPOSURE:**

Effects of overexposure may include eye and skin irritation, irritation of the nose and throat. Central nervous system effects include dizziness, headache, drowsiness, loss of coordination, fatigue, giddiness, loss of appetite and abdominal pain. Symptoms of ingestion include irritation of digestive tract, nausea, vomiting and diarrhea.

**CARCINOGENICITY INFORMATION:**

Vinyl Acetate Monomer has been classified by the International Agency for Research on Cancer as possibly carcinogenic to humans (Group 2B). This IARC classification was based upon limited evidence of carcinogenicity to animals and inadequate evidence of carcinogenicity to humans.

The National Toxicology program has reported a chronic inhalation study in rats of naphthalene, a minor component of this product. Naphthalene caused severe inflammation and an increase in tumors of the nasal epithelium in both sexes. NTP considered this to be clear evidence of carcinogenic activity in rats. The relevance to the inhalation toxicity of this product in humans is unknown.

Ethylbenzene has been classified by IARC as a possible human carcinogen (Group 2B) on the basis of sufficient evidence of carcinogenicity in experimental animals, but inadequate evidence in exposed humans.

**TARGET ORGAN:**

Target organs: Heart, Auditory System.

#### **4. FIRST AID MEASURES**

**EYE CONTACT FIRST AID:**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Remove any contact lenses if worn. Get medical attention if irritation develops or persists.

**SKIN CONTACT FIRST AID:**

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.

**INHALATION FIRST AID:**

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.

(section 4 continued)

**INGESTION FIRST AID:**

If swallowed, do NOT induce vomiting, but have the victim rinse mouth with water, and then drink 2 - 4 cupfuls 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.

**NOTES TO PHYSICIAN:**

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.

**5. FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES**

TCC Flash Point: 46.1 C (115.0 F)  
Autoignition Temperature: N/A

**FLAMMABLE LIMITS IN AIR**

LEL: N/A  
UEL: N/A

**EXTINGUISHING MEDIA:**

Dry chemical, water spray (fog), carbon dioxide, foam.

**FIRE & EXPLOSION HAZARDS:**

Combustible 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.

**FIRE FIGHTING INSTRUCTIONS:**

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.

Avoid breathing smoke and vapor.

(section 5 continued)

When heated above 100 Deg 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 Deg C.

**COMBUSTION PRODUCTS:**

Hazardous decomposition products are oxides of carbon and nitrogen including CO and CO2.

## **6. ACCIDENTAL RELEASE MEASURES**

**SAFEGUARDS (PERSONNEL):**

Wear appropriate personal protective equipment (See Section 8). Evacuate non-emergency personnel to a safe area.

If applicable, report spills to the proper environmental agencies as required by federal, state and local regulations.

**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**

**HANDLING (PERSONNEL):**

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.

(section 7 continued)

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.

**HANDLING (PHYSICAL ASPECTS):**

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.

**STORAGE PRECAUTIONS:**

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.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**ENGINEERING CONTROLS:**

Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

**EYE / FACE PROTECTION REQUIREMENTS:**

Wear safety glasses with side shields (or goggles) and a face shield.

**SKIN PROTECTION REQUIREMENTS:**

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.

**RESPIRATORY PROTECTION REQUIREMENTS:**

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.

(section 8 continued)

**EXPOSURE GUIDELINES:**

**1,2,4-TRIMETHYLBENZENE**

ACGIH TWA: 25 ppm

**2-BUTOXYETHANOL**

OSHA PEL: 25 ppm, 120 mg/m<sup>3</sup>

OSHA TWA: 25 ppm

ACGIH TWA: 25 ppm

**XYLENE**

OSHA TWA: 100 ppm

ACGIH TWA: 100 ppm

OSHA STEL: 150 ppm

ACGIH STEL: 150 ppm

**TRIMETHYLBENZENE**

OSHA TWA: 25 ppm

ACGIH TWA: 25 ppm

**CUMENE**

OSHA PEL: 50 ppm, 245 mg/m<sup>3</sup>

OSHA TWA: 50 ppm

ACGIH TWA: 50 ppm

**ETHYLBENZENE**

OSHA TWA: 100 ppm

OSHA STEL: 125 ppm

ACGIH STEL: 125 ppm

**NAPHTHALENE**

OSHA PEL: 10 ppm, 50 mg/m<sup>3</sup>

OSHA TWA: 10 ppm, 50 mg/m<sup>3</sup>

OSHA STEL: 15 ppm

**9. PHYSICAL AND CHEMICAL PROPERTIES**

FORM .....: Liquid  
COLOR .....: Amber  
ODOR .....: Aromatic hydrocarbon  
SOLUBILITY IN WATER ...: Nil  
SPECIFIC GRAVITY .....: 0.8863 (Water = 1)  
BULK DENSITY .....: 7.377 Pounds per Gallon  
PH .....: Not applicable

**10. STABILITY AND REACTIVITY**

**STABILITY:**

Stable at normal temperatures and storage conditions.

When heated above 100 Deg C, may undergo an exothermic reaction which causes a rapid rise in temperature and pressure. Rupture of storage vessels and fire should be anticipated in case of such temperature.

(section 10 continued)

**POLYMERIZATION:**

Hazardous polymerization will not occur.

**INCOMPATIBILITY WITH OTHER MATERIALS:**

Avoid contact with strong oxidizing agents, such as nitric and sulfuric acids, halogens, hydrogen peroxide and chlorinating agents. May burn or react violently with fluorine/oxygen mixtures with 50-100% fluorine. Decomposes with heat.

**DECOMPOSITION:**

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.

**CONDITIONS TO AVOID:**

Sources of ignition and temperatures above 50C (122F) - 60C (140F).

## 11. TOXICOLOGICAL INFORMATION

**EYE EFFECTS:**

Vinyl Acetate is a severe eye irritant (rabbit).

Solvent Petroleum Naphtha, slightly irritating (rabbit).

**SKIN EFFECTS:**

Vinyl Acetate is a slight skin irritant. Skin absorption LD50 is 2,335 mg/kg in rabbits for Vinyl Acetate.

Solvent Petroleum Naphtha, no deaths reported at 4 ml/kg (Rat). Slightly irritating (rabbit, 4 hour(s)).

2-Ethylhexyl Nitrate is harmful in contact with skin.

**ACUTE ORAL EFFECTS:**

Oral LD50 for Vinyl Acetate Monomer is 2,920 mg/kg in rats.

Solvent Petroleum Naphtha, LD50, 10 ml/kg in rats.

Naphthalene, Oral LD50, 2600 mg/kg (rat).

**ACUTE INHALATION EFFECTS:**

Inhalation 4 hour LC50 is 4,000 ppm in rats for Vinyl Acetate Monomer.

Solvent Petroleum Naphtha, no deaths at 710 ppm (v) (Rat) 4 Hour (s).

(section 11 continued)

**MISCELLANEOUS:**

Vinyl Acetate: No effects from repeated exposure to vinyl acetate by inhalation were observed at 100 ppm in rats. Exposure to higher concentrations of vinyl acetate by inhalation caused eye irritation and lacrimation, reduced weight gain, and irritation of the respiratory tract with breathing difficulty. The effects observed in rats and mice exposed by inhalation to 200 and 600 ppm for two years include reduced body weight. Repeated exposures by administration of vinyl acetate in the drinking water caused decreased weight gain, and low liver weights. Reduced body weight occurred in rats administered 5000 ppm in their drinking water for two years. Vinyl acetate is weakly carcinogenic in rats, but not in mice. The compound does not have an adverse effect on the development of rats and its effect on reproduction is not considered significant. The genotoxicity of vinyl acetate is equivocal. Genetic damage was produced in some types of cell cultures and in animals, but was negative in other studies. No tests for heritable genetic damage were available.

Please contact supplier for additional toxicological information.

**12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL HAZARDS:**

Toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

**MISCELLANEOUS:**

Ecotoxicity: Ingredient Name:

2-Ethylhexyl Nitrate:

Trout	24 Hours	145 mg/l
Trout	48 Hours	116 mg/l
Bluegill	96 Hours	4.5 mg/l
Bluegill	48 Hours	6 mg/l
Bluegill	72 Hours	5.4 mg/l.

**13. DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL:**

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 161.

## 14. TRANSPORTATION INFORMATION

PRODUCT LABEL .....: FPS Premium Winter  
D.O.T. SHIPPING NAME .....: Combustible Liquid, N.O.S.  
TECHNICAL SHIPPING NAME ...: Contain Petroleum Naphtha,1,2,4-Trimethylbenzene  
D.O.T. HAZARD CLASS .....: Combustible Liquid  
UN NUMBER .....: NA1993  
D.O.T. PLACARD .....: Combustible Liquid  
PACKAGE CLASS .....: Packing Group III

### MISCELLANEOUS:

This material is not regulated for US DOT transportation in quantities less than 119 Gallons.

## 15. REGULATORY INFORMATION

### REGULATORY DISCLOSURES:

New Jersey Right to Know list:

1,2,4-Trimethylbenzene, CAS #95-63-6, < 20.0 %.

Cumene, CAS# 98-82-8, < 1.0 %.

Naphthalene, CAS # 91-20-3, < 0.3 %.

Xylene, CAS # 1330-20-7, < 3.0 %.

Pennsylvania Right to Know List:

1,2,4-Trimethylbenzene, CAS #95-63-6, < 20.0 %.

Naphthalene, CAS # 91-20-3, < 0.3 %.

Xylene, CAS # 1330-20-7, < 3.0 %.

2-Butoxyethanol, CAS# 111-76-2, 10 - 20 %.

Cumene, CAS# 98-82-8, < 1.0 %.

Ethylbenzene, CAS # 100-41-4, < 0.5 %.

### Canadian Disclosure List

1,2,4-TRIMETHYLBENZENE (95-63-6)  
2-BUTOXYETHANOL (111-76-2)  
TRIMETHYLBENZENE (25551-13-7)  
ETHYLBENZENE (100-41-4)

### SARA Title III - Section 313

1,2,4-TRIMETHYLBENZENE (95-63-6)  
XYLENE (1330-20-7)  
CUMENE (98-82-8)

(section 15 continued)

**CERCLA Hazardous Substances**

XYLENE (1330-20-7) -- RQ 1000 lb  
CUMENE (98-82-8) -- RQ 5000 lb  
ETHYLBENZENE (100-41-4) -- RQ 1000 lb  
NAPHTHALENE (91-20-3) -- RQ 100 lb  
VINYL ACETATE MONOMER (108-05-4) -- RQ 5000 lb

**RCRA Hazardous Substances**

XYLENE (1330-20-7) -- RCRA Code: U239  
CUMENE (98-82-8) -- RCRA Code: U055  
NAPHTHALENE (91-20-3) -- RCRA Code: U165

**Clean Air Act - Section 112**

VINYL ACETATE MONOMER (108-05-4)

**Title V**

1,2,4-TRIMETHYLBENZENE (95-63-6)  
XYLENE (1330-20-7)  
CUMENE (98-82-8)  
ETHYLBENZENE (100-41-4)  
NAPHTHALENE (91-20-3)  
VINYL ACETATE MONOMER (108-05-4)

**SC Toxic Air Pollutants List**

XYLENE (1330-20-7)  
CUMENE (98-82-8)  
ETHYLBENZENE (100-41-4)  
NAPHTHALENE (91-20-3)  
VINYL ACETATE MONOMER (108-05-4)

**MISCELLANEOUS INFORMATION:**

This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA).

**16. OTHER INFORMATION**

APPROVAL DATE .....: September 28, 2006  
SUPERCEDES DATE ...: September 21, 2006  
RTN NUMBER .....: 00310876 (Official Copy)

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END OF MSDS

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