

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: NONROAD 15NR2 B2 WB

Manufacturer Information:

Philadelphia Energy Solutions
1735 Market Street LL

Philadelphia, Pennsylvania, 19103-7583
pescustomersupport@sunocoinc.com

Product Use:

BIODIESEL FUEL - B2 to B20
Min 40 Centane

Emergency Phone Numbers:

Chemtrec (800) 424-9300 24 Hours

2. HAZARDS IDENTIFICATION

• EMERGENCY OVERVIEW

Danger! Combustible liquid and vapor. Vapors may cause flash fire or explosion. Static accumulator. May form an ignitable vapor/air mixture. Harmful if inhaled. May cause headaches and dizziness. Harmful if absorbed through skin. Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage. Causes skin irritation. Can cause severe chronic toxicity. Possible cancer hazard.

Hazards Ratings:

Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme

	<u>Health</u>	<u>Fire</u>	<u>Reactivity</u>	<u>PPI</u>
NFPA	1	2	0	
HMIS	2	2	0	x

• POTENTIAL HEALTH EFFECTS

▪ PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

The following diseases or disorders may be aggravated by exposure to this product: skin, eye, nervous system, respiratory system, lung (asthma-like conditions),

▪ INHALATION

Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract. May cause headaches and dizziness. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness and even death).

LC50 (mg/l): No data

LC50 (mg/m3): No data

LC50 (ppm): No data

▪ SKIN

May be absorbed through the skin in harmful amounts. Contains a material that has caused skin tumors in laboratory animals. Causes severe skin irritation. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Draize Skin Score: 6.9 out of 8.0

LD50 (mg/kg): No data

▪ **EYES**

Mildly irritating to the eyes.

▪ **INGESTION**

Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage.

LD50 (g/kg): No data

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount (Vol%)
#2 DIESEL HIGHWAY	68476-34-6	80 - 97
Fatty Acid Methyl Ester (Fame)		2 - 20
1,2,4 TRIMETHYLBENZENE	95-63-6	0 - 2
NAPHTHALENE	91-20-3	0 - 2
XYLENE	1330-20-7	0 - 1
CUMENE	98-82-8	0 - 1
ETHYL BENZENE	100-41-4	0 - 1

EXPOSURE GUIDELINES (SEE SECTION 15 FOR ADDITIONAL EXPOSURE LIMITS)

	CAS No.	Governing Body	Exposure Limits	
Limit for the product		ACGIH	TWA	100 mg/m3
CUMENE	98-82-8	ACGIH	TWA	50 ppm
CUMENE	98-82-8	OSHA	TWA	50 ppm
ETHYL BENZENE	100-41-4	ACGIH	TWA	20 ppm
ETHYL BENZENE	100-41-4	OSHA	TWA	100 ppm
NAPHTHALENE	91-20-3	ACGIH	STEL	15 ppm
NAPHTHALENE	91-20-3	ACGIH	TWA	10 ppm
NAPHTHALENE	91-20-3	OSHA	TWA	10 ppm
XYLENE	1330-20-7	ACGIH	STEL	150 ppm
XYLENE	1330-20-7	ACGIH	TWA	100 ppm
XYLENE	1330-20-7	OSHA	TWA	100 ppm
#2 DIESEL HIGHWAY	68476-34-6	ACGIH	TWA	100 mg/m3

4. FIRST AID MEASURES

• **INHALATION**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.

• **SKIN**

Wash with soap and water for 20 minutes. Get medical attention if irritation develops or persists. Wash clothing before reuse. Destroy contaminated shoes and other leather products.

• **EYES**

Flush eye with water for 20 minutes. Get medical attention.

• **INGESTION**

If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

- **EXTINGUISHING MEDIA**

Water spray; Regular foam; Dry chemical; Carbon dioxide;

- **FIRE FIGHTING INSTRUCTIONS**

Use water spray to cool fire exposed tanks and containers. Water or foam may cause frothing. Wear structural fire fighting gear. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

- **FLAMMABLE PROPERTIES**

Combustible liquid and vapor. **STATIC ACCUMULATOR.** This liquid may form an ignitable vapor-air mixture in closed tanks or containers.

	Typical	Minimum	Maximum	Text Result	Units	Method
Flash Point				> 125	F	PMCC
Autoignition Temperature	500				F	N/A
Lower Explosion Limit				No data	%	N/A
Upper Explosion Limit				No data	%	N/A

6. ACCIDENTAL RELEASE MEASURES

Prevent ignition, stop leak and ventilate the area. Contain spilled liquid with sand or earth. **DO NOT** use combustible materials such as sawdust. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Vacuum or sweep up material and place in a disposal container.

7. HANDLING AND STORAGE

- **HANDLING**

Use only in a well-ventilated area. **STATIC ACCUMULATOR.** This liquid may form an ignitable vapor-air mixture in closed tanks or containers. This liquid may accumulate static electricity even when transferred into properly grounded containers. Bonding and grounding may be insufficient to remove static electricity. Static electricity accumulation may be significantly increased by the presence of small quantities of water. Always bond receiving container to the fill pipe before and during loading, following NFPA-77 and/or API RP 2003 requirements. Automatic gauging devices and other floats in vessels or tanks which contain static accumulating liquids should be electrically bonded to the shell. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards associated with electrostatic charges. In addition to bonding and grounding, efforts to mitigate the hazards of an electrostatic discharge may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities. Always keep the nozzle in contact with the container throughout the loading process. Do not fill any portable containers in or on a vehicle. Special precautions, such as reduced loading rates and increased monitoring, must be observed during "switch loading" operations (i.e. loading this material in tanks or shipping compartments that previously contained middle distillates or similar products). Non-equilibrium conditions may increase the risks associated with static electricity such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. Dissipation of electrostatic charges may be improved with the use of conductivity additives when used with other mitigating efforts, including bonding and grounding. Avoid breathing (dust, vapor, mist, gas). Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

- **STORAGE**

Keep away from heat, sparks, and flame. Keep container closed when not in use. NFPA class II storage. Flash point is greater than 100 degrees F and less than 140 degrees F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult With a Health and Safety Professional for Specific Selections

- **ENGINEERING CONTROLS**

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

- **PERSONAL PROTECTION**

- **EYE PROTECTION**

Splash proof chemical goggles are recommended to protect against the splash of product.

- **GLOVES or HAND PROTECTION**

Protective gloves are recommended when prolonged skin contact cannot be avoided. The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Polyvinyl chloride (PVC); Neoprene; Nitrile; Polyvinyl alcohol; Viton;

- **RESPIRATORY PROTECTION**

Concentration in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Respiratory protection is not usually needed unless product is heated or misted. Half-mask air purifying respirator with organic vapor cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with organic vapor cartridges is acceptable for exposures to fifty (50) times the exposure limit. Exposure should not exceed the cartridge limit of 1000 ppm. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures greater than fifty (50) times the exposure limit. If exposure is above the IDLH (Immediately Dangerous to Life and Health) or there is the possibility of an uncontrolled release, or exposure levels are unknown, then use a positive pressure-demand full-face supplied air respirator with escape bottle or SCBA. Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

- **OTHER**

Where splashing is possible, full chemically resistant protective clothing and boots are required. The following materials are acceptable for use as protective clothing: Polyvinyl alcohol (PVA); Polyvinyl chloride (PVC); Neoprene; Nitrile; Viton; Polyurethane; Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Remove contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Property	Typical	Units	Text Result	Reference
Appearance		other	Lt Amber Liquid	
Boiling Point		F		
Bulk Density		lb/gal	No data	
Melting Point		F	No data	
Molecular Weight		g/mole	No data	
Octanol/Water Coefficient		other	No data	
pH		other	No data	
Specific Gravity	0.87	other		
Solubility In Water		wt %	Nil	
Odor		other	Kerosene-like	
Odor Threshold		other	No data	
Vapor Pressure	1.6	mmHg		
Viscosity (F)		other	No data	
Viscosity (C)		CsT	40C	
% Volatile		wt %	No data	

10. STABILITY AND REACTIVITY

- **STABILITY**

Stable

- **CONDITIONS TO AVOID**

Avoid heat, sparks and open flame.

- **INCOMPATIBILITY**

Cutting oil Strong oxidizers

- **HAZARDOUS DECOMPOSITION PRODUCTS**
Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.
- **HAZARDOUS POLYMERIZATION**
Will not polymerize.

11. ECOLOGICAL INFORMATION

No data available

12. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. This material is a RCRA hazardous waste. Do not flush material to drain or storm sewer. Contract to authorized disposal service.

13. TRANSPORT INFORMATION

<u>Governing Body</u>	<u>Mode</u>	<u>Proper Shipping Name</u>
DOT	Ground	Diesel Fuel

<u>Governing Body</u>	<u>Mode</u>	<u>Hazard Class</u>	<u>UN/NA No.</u>	<u>Label</u>
DOT	Ground	3 (Combustible Liquid)	NA1993	

14. REGULATORY INFORMATION

This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): Maximum Wt%: Naphthalene- CAS Number 91-20-3, 2.5%; Ethyl benzene- CAS Number 100-41-4, 1.0%; Cumene- CAS Number 98-82-8, 1.0%; The remaining Sara 313 components listed in Section 14 of the MSDS are less than the reported de minimis levels. This information must be included in all MSDSs that are copied and distributed for this material.

<u>Regulatory List</u>	<u>Component</u>	<u>CAS No.</u>
ACGIH - Occupational Exposure Limits - Carcinogens	#2 DIESEL HIGHWAY	68476-34-6
ACGIH - Occupational Exposure Limits - Carcinogens	ETHYL BENZENE	100-41-4
ACGIH - Occupational Exposure Limits - Carcinogens	NAPHTHALENE	91-20-3
ACGIH - Occupational Exposure Limits - Carcinogens	XYLENE	1330-20-7
ACGIH - Occupational Exposure Limits - TWAs	#2 DIESEL HIGHWAY	68476-34-6
ACGIH - Occupational Exposure Limits - TWAs	CUMENE	98-82-8
ACGIH - Occupational Exposure Limits - TWAs	ETHYL BENZENE	100-41-4
ACGIH - Occupational Exposure Limits - TWAs	NAPHTHALENE	91-20-3
ACGIH - Occupational Exposure Limits - TWAs	XYLENE	1330-20-7
ACGIH - Short Term Exposure Limits	ETHYL BENZENE	100-41-4
ACGIH - Short Term Exposure Limits	NAPHTHALENE	91-20-3
ACGIH - Short Term Exposure Limits	XYLENE	1330-20-7
ACGIH - Skin Absorption Designation	#2 DIESEL HIGHWAY	68476-34-6
ACGIH - Skin Absorption Designation	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	CUMENE	98-82-8
CAA (Clean Air Act) - HON Rule - Organic HAPs	ETHYL BENZENE	100-41-4
CAA (Clean Air Act) - HON Rule - Organic HAPs	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	XYLENE	1330-20-7
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	CUMENE	98-82-8
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	ETHYL BENZENE	100-41-4
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	XYLENE	1330-20-7
CAA (Clean Air Act) - VOCs in SOCM1	CUMENE	98-82-8
CAA (Clean Air Act) - VOCs in SOCM1	ETHYL BENZENE	100-41-4
CAA (Clean Air Act) - VOCs in SOCM1	XYLENE	1330-20-7
CAA - 1990 Hazardous Air Pollutants	CUMENE	98-82-8

CAA - 1990 Hazardous Air Pollutants
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 CAA - 1990 Hazardous Air Pollutants
 California - Proposition 65 - Carcinogens List
 California - Proposition 65 - Carcinogens List
 Canada - WHMIS - Ingredient Disclosure
 Canada - WHMIS - Ingredient Disclosure
 CERCLA/SARA - Haz Substances and their RQs
 CERCLA/SARA - Haz Substances and their RQs
 CERCLA/SARA - Haz Substances and their RQs
 CERCLA/SARA - Haz Substances and their RQs
 CERCLA/SARA - Section 313 - Emission Reporting
 CERCLA/SARA - Section 313 - Emission Reporting
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 CERCLA/SARA - Section 313 - Emission Reporting
 CERCLA/SARA - Section 313 - Emission Reporting
 CERCLA/SARA - Section 313 - Emission Reporting
 CWA (Clean Water Act) - Hazardous Substances
 CWA (Clean Water Act) - Hazardous Substances
 CWA (Clean Water Act) - Hazardous Substances
 CWA (Clean Water Act) - Priority Pollutants
 CWA (Clean Water Act) - Priority Pollutants
 CWA (Clean Water Act) - Toxic Pollutants
 CWA (Clean Water Act) - Toxic Pollutants
 IARC - Group 2B (Possibly carcinogenic to humans)
 IARC - Group 2B (Possibly carcinogenic to humans)
 IARC - Group 3 (not classifiable)
 Inventory - Australia (AICS)
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 Inventory - Canada - Domestic Substances List
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ETHYL BENZENE 100-41-4
 NAPHTHALENE 91-20-3
~~XYLENE 1330-20-7~~
 ETHYL BENZENE 100-41-4
 NAPHTHALENE 91-20-3
 1,2,4 TRIMETHYLBENZENE 95-63-6
 ETHYL BENZENE 100-41-4
 CUMENE 98-82-8
 ETHYL BENZENE 100-41-4
 NAPHTHALENE 91-20-3
 XYLENE 1330-20-7
 1,2,4 TRIMETHYLBENZENE 95-63-6
 CUMENE 98-82-8
 ETHYL BENZENE 100-41-4
 NAPHTHALENE 91-20-3
 XYLENE 1330-20-7
 ETHYL BENZENE 100-41-4
 NAPHTHALENE 91-20-3
 XYLENE 1330-20-7
 ETHYL BENZENE 100-41-4
 NAPHTHALENE 91-20-3
 XYLENE 1330-20-7
 ETHYL BENZENE 100-41-4
 NAPHTHALENE 91-20-3
 XYLENE 1330-20-7
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 1,2,4 TRIMETHYLBENZENE 95-63-6
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 NAPHTHALENE 91-20-3
 XYLENE 1330-20-7

Title III Classifications Sections 311,312:

- Acute: **YES**
- Chronic: **YES**
- Fire: **YES**
- Reactivity: **NO**
- Sudden Release of Pressure: **NO**

15. OTHER INFORMATION

Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Following injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. 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. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner or properly disposed of. COMPONENT TOXICITY: Overexposure to naphthalene, a minor component of this product, may cause skin, eye and respiratory tract irritation, anemia, loss of vision, nervous system effects and kidney and thymus damage. Also, exposure to naphthalene has produced "respiratory tract" tumors in laboratory animals. Ethylbenzene, a component of this product, has been designated by the International Agency for Research on Cancer as "possibly carcinogenic to humans", based on increased tumor incidence in laboratory animals. Overexposure may lead to nervous system effects, including drowsiness, dizziness, nausea, headaches, paralysis, loss of consciousness and even death. Repeated overexposure has caused a hearing loss in laboratory animals. Cumene may be harmful or fatal if swallowed. Pulmonary aspiration hazard. After ingestion, may enter lungs and cause damage. May cause respiratory irritation, fluid in the lungs and lung damage. May be irritating to the skin and eyes. May cause nervous system effects, including drowsiness, dizziness, coma and even death. Overexposure has caused kidney, nose, and liver damage in laboratory animals. Following inhalation exposure, an increased tumor incidence has been observed in experimental animals. The significance of this finding to human health is presently unknown.