Peak Blue Def Diesel Exhaust Fluid

11/10/16

Initial Preparation Date: *3/30/09*
Last Revision Date: *2/12/13*
Effective Date: *4/22/13*

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTITY: BLUE DEF™ DIESEL EXHAUST FLUID

1. CHEMICAL PRODUCT & COMPANY INFORMATION

OLD WORLD INDUSTRIES, LLC
4065 COMMERCIAL AVENUE
NORTHBROOK, ILLINOIS 60062
PHONE: 847-559-2000
EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)

2. COMPOSITION / INFORMATION ON INGREDIENTS

			TLV (ACGIH)	
Material	*CAS#*	*% by Wt.*	*STEL*	*TWA*
Urea	57-13-6	32.5	Not established	10 mg/m^3 (AIHA WEEL)
Water	7732-18-5	67.5	N/A	N/A

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Effects of overexposure may include irritation of the nose, throat and digestive tract, headaches, coughing, nausea, vomiting and transient disorientation.

Lowest Known LD50 (Oral) for Urea:	Cattle 510 mg/kg
	Mouse 11,500 – 13,000 mg/kg
	Rabbit 8,200 mg/kg
	Rat 14,300 – 15,000 mg/kg
Lowest Known LD50 (Skin):	Not known
Carcinogency:	Not identified as a carcinogen
National Toxicology Program:	Not identified as a carcinogen
International Agency for Research on Cancer:	Not identified as a carcinogen
OSHA:	Not identified as a carcinogen

HAZARD RATING SYSTEM

NPFA: HEALTH: 1 **FLAMMABILITY:** 0 **REACTIVITY:** 0
HMIS: HEALTH: 1 **FLAMMABILITY:** 0 **REACTIVITY:** 0
PERSONAL PROTECTION: B (safety glasses and gloves)

KEY: 0 - Minimal 1 - Slight 2 - Moderate 3 – Serious 4 - Severe

POTENTIAL HEALTH EFFECTS

Eye: Contact may cause mild eye irritation, including stinging, watering and redness.

Skin: Contact may cause mild skin irritation, including redness and burning. No harmful effects from skin absorption have been reported.

Inhalation (Breathing): No information available. Studies by other exposure routes suggest a low degree of toxicity by inhalation. Symptoms include sore throat, sneezing, coughing and shortness of breath.

Ingestion (Swallowing): If ingestion occurs, symptoms include sore throat, mouth and stomach irritation. Larger ingestion amounts beyond listed exposure limits may cause defects to the central nervous system (e.g. dizziness and headache).

Cancer: Not identified as a carcinogen

Target Organs: Eyes, skin, respiratory system, digestive, central nervous system.

Developmental: Inadequate evidence available for this material.

Pre-Existing Medical Conditions: Aggravation of these conditions may occur if overexposure is experienced.

4. FIRST AID MEASURES
Ensure physician has access to this MSDS.

Routes of Entry: Inhalation, Skin, Ingestion

Signs and Symptoms of Exposure: Effects of overexposure may include irritation of the nose, throat and digestive tract, headaches, coughing, nausea, vomiting and transient disorientation.

TREATMENT

Eyes: If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

Skin: Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and warm water. If irritation or redness develops and persists, seek medical attention.

Inhalation: If respiratory difficulties develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion: Do **NOT** induce vomiting. First aid is not normally required; however, if swallowed and symptoms such as dizziness and headache develop, seek medical attention. Never give anything by mouth to an unconscious person.

Notes to Physician: Treat symptomatically and monitor.

5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION HAZARD DATA

Flammable Properties: Product is not flammable. Closed containers may rupture with exposure to excess heat or flame due to internal container pressure.

Flash Point: None

Flammability Limits: Percentage of vapor concentration at which product can ignite in presence of spark:
LEL: No data
UEL: No data

Hazardous Combustion Products: Closed containers exposed to extreme heat can rupture due to pressure building. Carbon oxides, nitrogen oxides, ammonia, biuret, cyanuric acid and other irritating fumes and smoke.

Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Fire Fighting Instructions: Isolate immediate hazard area and keep unauthorized personnel out. Stop spill / release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors. Cool equipment exposed to fire with water, if it can be done with minimal risk.

Protective Equipment For Fire Fighters: Firefighters should use proper protective equipment, such as a self-contained breathing apparatus with full face piece operated in positive pressure mode, suitable for the type of fire / environment they are working to contain and extinguish.

6. ACCIDENTAL RELEASE MEASURES

Protect People: Wear appropriate protective equipment, including respiratory protection, as conditions warrant. (See Section 8.)

Protect the Environment: It is recommended that spilled material is prevented from entering sewers, storm drains or natural watercourses, contain material with a dike or with appropriate absorbent materials such as sand, clay, soil or commercially available absorbent material that is non-combustible and inert. Place reclaimed liquid and absorbent into recovery or salvage drums for disposal (Refer to Section 13 for appropriate disposal). The EPA has no established reportable quantity for spills for this material (Refer to Section 15), secondary containment is not specified.

Methods for cleanup:

Small Spill: Stop leak if without risk. Material free from contamination can be used for its original purpose. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not wear contaminated clothing or shoes.

Storage: Keep container(s) tightly closed. Do not allow product to come in contact with extreme heat and flame or with strong oxidizers. Use and store this material in cool, dry, well-ventilated areas. Store only in the container with which the product was delivered or in uncontaminated bulk containers. Keep away from any incompatible material such as strong acids or oxidizing agents (e.g. hydrogen peroxide, nitric acid). (See Section 10.) Protect container(s) against physical damage. Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: None required during normal vehicle servicing or normal conditions. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Seek advice from respiratory protection specialists.

Skin Protection: None required during normal vehicle servicing or under normal handling and storage conditions (see Section 7). To prevent skin contact, use impermeable gloves. Nitrile, Viton, Butyl.

Eye / Face Protection: Not required during normal vehicle servicing or under normal handling and storage conditions (see Section 7). If splashing might occur, wear eye protection such as chemical splash goggles.

Engineering Controls: Not required during normal vehicle servicing or under normal handling and storage conditions (see Section 7). If current ventilation practices are not adequate to minimize exposure below ACGIH limits, additional ventilation or exhaust systems may be required.

Other Protective Equipment: Not required during normal vehicle servicing or under normal handling and storage conditions (see Section 7). It is recommended that a source of clean water should be available in the work area for flushing eyes and skin if immersion or heavy splashing is expected. Impervious clothing should be worn as needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	9.0 – 10.0
Boiling Point:	>212°F
Crystallization Point:	12°F
Pounds/Gallon:	9.09
Specific Gravity (Water =1):	1.09
Vapor Pressure (mm of Hg):	Not applicable
Vapor Density (Air=1):	0.6 H20, >1
Water Solubility:	100%
Appearance:	Colorless, clear liquid
Odor:	Ammonia
Evaporation Rate:	<1

10. STABILITY & REACTIVITY DATA

Stability: Stable under normal conditions of storage and handling.

Conditions to Avoid: Avoid excessive heat, sparks and open flame. Do not mix with any other chemicals or products.

Incompatibility (Materials to Avoid): Avoid contact with strong oxidizing agents such as chlorine (bleach), peroxides, chromates, nitric acid, perchlorates, concentrated oxygen or permanganates. Contact can generate heat, fires, explosions and release toxic fumes (see Section 5). In addition, urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.

Hazardous Decomposition Products: If involved in a fire, oxides of carbon and nitrogen may be generated; exposure to heat may generate ammonia fumes.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

No identified or known information available on mutagenicity, target organs or developmental toxicity.

Toxicological data: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Ingredients	LC_{50} (4 hr) Inh, rat	LD_{50}	
		Oral	Dermal
Urea	N/Av	8,471 mg/kg (rat)	8,200 mg/kg (rabbit)

12. ECOLOGICAL INFORMATION

Environmental effects: Readily biodegradable
Microtox Data: 24 hr. EC50 Daphnia magna straus: >10,000 mg/L
Freshwater Fish Species Data: 96 hr. LC50 Barillius barna: >9,100mg/L

Aquatic Ecotoxicity Acute LC50 Test for Urea

Result	Species	Exposure
83,700 to 86,900 ug/L Fresh water	Fish – Rohu Labeo Rohita FRY – 0.8 g	96 hours
65,800 to 70,200 ug/L Fresh water	Fish – Rohu Labeo FRY – 0.8 g	96 hours
22,500 ug/L Fresh water	Fish – Mozambique Tilapia & Tilapia Mossambica	96 hours
16,700 to 19,600 ug/L Fresh water	Fish – Rohu Labeo Rohita Egg	96 hours
90,100 to 93,900 ug/L Fresh water	Fish – Rohu Labeo Rohita – FRY 0.8 g	96 hours
5,000 ug/L Fresh water	Fish – Giant Gourami Colisa Fasciata – Fingerling	96 hours

This product does not show any bioaccumulation phenomena.

13. DISPOSAL CONSIDERATIONS

This material, if discarded as produced, is not a RCRA "listed" or "characteristic" hazardous waste. Use resulting in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material. If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D. As a non-hazardous liquid waste, it should be solidified with stabilizing agents such as sand, fly ash, or clay absorbent, so that no free liquid remains before disposal to an industrial waste landfill.

RCRA # Not listed

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT): NOT CONTROLLED UNDER DOT.

ICAO/IATA: NOT CONTROLLED UNDER ICAO/IATA.

IMDG: NOT CONTROLLED UNDER IMDG.

15. REGULATORY INFORMATION

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

EPA (CERCLA) Reportable Quantity: None. This material is not classified as hazardous under U.S. EPA regulations.

SARA Title III:

SARA 302, Extremely Hazardous Substances, 40 CFR 355: No extremely hazardous substances are in this product.

SARA 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: **Urea**. No hazards resulting from the material as supplied. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA 313: SARA 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above de minimus concentrations.

California Proposition 65: This material does not contain chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS Information: This product is not a WHMIS controlled product in Canada. Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

16. OTHER INFORMATION

Contact: Thomas Cholke **Phone**: (847) 559-2225

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