



Initial Preparation Date: 3/30/09
Last Revision Date: 4/2/09
Effective Date: 12/11/09

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTITY: BlueDEF™ DIESEL EXHAUST FLUID

1. CHEMICAL PRODUCT & COMPANY INFORMATION

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

2. COMPOSITION / INFORMATION ON INGREDIENTS

No hazardous components identified per 29 CFR 1910.1200.

<u>Material</u>	<u>CAS#</u>	<u>% by Wt.</u>	<u>STEL</u>	<u>TLV (ACGIH)</u>	<u>TWA</u>
Urea	57-13-6	32 – 33	Not established		10 mg/m ³ (AIHA WEEL)

NOTE: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Lowest Known LD50 (Oral):	Not known
Lowest Known LD50 (Skin):	Not known
Carcinogeny:	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:

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.

Ingestion (Swallowing): No harmful effects reported from ingestion.

Cancer: Inadequate evidence available to evaluate the cancer hazard of this material.

Target Organs: No data available.

Developmental: Inadequate evidence available for this material.

Pre-Existing Medical Conditions: None known.

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 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 develop, seek medical attention.

Notes to Physician: None.

5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION HAZARD DATA

Flammable Properties

Flash Point: None to boiling

Method Used:

Flammability Limits - % 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.

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: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or

confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant. (See Section 8.)

6. ACCIDENTAL RELEASE MEASURES

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

Protect the Environment: To prevent spilled material 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. Place reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to Section 13 for appropriate disposal.

Cleanup: Stop the source of the release if it can be done without risk. Immediately isolate the hazard area and restrict access to authorized personnel only.

7. HANDLING AND STORAGE

Handling: Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits. (See Sections 2 and 8.) Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practice.

Storage: Keep container(s) tightly closed. Do not heat or contact with strong oxidizers. Use and store this material in cool, dry, well-ventilated areas. Do not store at temperatures below 40° F. Store only in approved containers. Keep away from any incompatible material. (See Section 10.) Protect container(s) against physical damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Respiratory protection is not usually required. If significant spray or mist occurs, wear a NIOSH approved or equivalent dust respirator.

Skin Protection: The use of gloves impermeable to the specific material handled is advised to prevent skin contact, possible irritation and absorption. (See glove manufacturer for information on permeability.)

Eye Protection: Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Engineering Controls: If current ventilation practices are not adequate to minimize exposure, additional ventilation or exhaust systems may be required.

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

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 H2O, >1
Water Solubility: 100%
Appearance: Colorless, clear liquid
Odor: None to slight ammonia
Evaporation Rate: <1

10. STABILITY & REACTIVITY DATA

Stability: Stable under normal conditions of storage and handling.

Conditions to Avoid: None known.

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.

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 definitive information available on carcinogenicity, 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	8471 mg/kg (rat)	8200 mg/kg (rabbit)

12. ECOLOGICAL INFORMATION

No data available.

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.

Proper Shipping Name:	Labels Required:
Hazard Class:	Placard:
UN Identification:	Exemption:
Packing Group:	Reportable Quantity:

ICAO/IATA: NOT CONTROLLED UNDER ICAO/IATA.

Proper Shipping Name:	Labels Required:
Hazard Class:	Placard:
UN Identification:	Exemption:
Packing Group:	Reportable Quantity:

IMDG: NOT CONTROLLED UNER IMDG.

Proper Shipping Name:	Labels Required:
Hazard Class:	Placard:
UN Identification:	Exemption:
Packing Group:	Reportable Quantity:

15. REGULATORY INFORMATION

Sara Title III: This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372: **None**

California Proposition 65: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5): **None known**

EPA (CERCLA) Reportable Quantity: **None**

Canadian Regulations:

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. All ingredients appear on the Domestic Substances List (DSL).

16. OTHER INFORMATION

Contact: Thomas Cholke

Phone: (847) 559-2225

Old World Industries, Inc. makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, Inc. as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, Inc. assume liability arising out of the use by others of this product referred to herein. The data in this MSDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.