Peak

# BlueDEF Diesel Exhaust Fluid

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product form : Mixture

Product name : BlueDEF Diesel Exhaust Fluid

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Solution for NOx reduction in SCR systems

### 1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC
4065 Commercial Ave.
Northbrook, IL 60062 - USA
T (847) 559-2000
www.oldworldind.com

### 1.4. Emergency telephone number

Emergency number : (800) 424-9300; (703) 527 3887 (International)
Chemtrec

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

GHS-US classification

Not classified

### 2.2. Label elements

GHS-US labelling

Signal word (GHS-US) : None

Hazard statements (GHS-US) : None

Precautionary statements (GHS-US) : None

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

| Name | Product identifier | % by wt | GHS-US classification |
|---|---|---|---|
| water | (CAS No) 7732-18-5 | 67.5 | Not classified |
| urea | (CAS No) 57-13-6 | 32.5 | Not classified |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

No additional information available

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : The EPA has no established reportable quantity for spills for this material, secondary containment is not specified.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. For minor spillages wash down with excess of water. Mop up small spills.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective goggles.

| | |
|---|---|
| Hand protection | : Wear protective gloves. |
| Eye protection | : Chemical goggles or safety glasses. |
| Respiratory protection | : Wear appropriate mask. |
| Other information | : Do not eat, drink or smoke during use. |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Color | : Colorless |
| Odor | : characteristic ammonia odor |
| Odor threshold | : No data available |
| pH | : 9 - 10 |
| Relative evaporation rate (butylacetate=1) | : < 1 |
| Freezing point | : -11 °C (12 °F) |
| Boiling point | : > 100 °C (212 °F) |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : Not Applicable |
| Relative vapor density at 20 °C | : 0.6 H2O, >1 |
| Specific Gravity | : 1.09 |
| Solubility | : Soluble in water.<br>Water: 100 % |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosive limits | : No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

Strong acids. Strong bases. oxidizing agents (peroxides, chromates, dichromates).

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| urea (57-13-6) | |
|---|---|
| LD50 oral rat | 8,471.00 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 14300 mg/kg bodyweight; Rat; Experimental value) |
| LD50 dermal rat | > 3,200.00 mg/kg (Rat; Literature study) |
| LD50 dermal rabbit | > 21,000.00 mg/kg (Rabbit; Literature study) |
| ATE US (oral) | 8,471.00 mg/kg bodyweight |

Skin corrosion/irritation : Not classified
pH: 9 - 10

Serious eye damage/irritation : Not classified
pH: 9 - 10

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

| urea (57-13-6) | |
|---|---|
| LC50 fish 1 | > 6,810.00 mg/l (96 h; Leuciscus idus; Nominal concentration) |
| EC50 Daphnia 1 | > 10,000.00 mg/l (48 h; Daphnia magna; Nominal concentration) |
| LC50 fish 2 | 17,500.00 mg/l (96 h; Poecilia reticulata) |
| EC50 Daphnia 2 | > 10,000.00 mg/l (24 h; Daphnia magna) |
| TLM fish 1 | 17500 ppm (96 h; Poecilia reticulata) |
| Threshold limit other aquatic organisms 1 | 120000 mg/l (16 h; Bacteria; Toxicity test) |
| Threshold limit other aquatic organisms 2 | > 10000 mg/l (Pseudomonas putida) |
| Threshold limit algae 1 | > 10000 mg/l (168 h; Scenedesmus quadricauda; Growth rate) |
| Threshold limit algae 2 | 47 mg/l (192 h; Microcystis aeruginosa; Growth rate) |

### 12.2. Persistence and degradability

| urea (57-13-6) | |
|---|---|
| Persistence and degradability | Inherently biodegradable. Hydrolysis in water. Highly mobile in soil. |
| ThOD | 0.27 g $O_2$/g substance |

### 12.3. Bioaccumulative potential

| urea (57-13-6) | |
|---|---|
| BCF fish 1 | 1.00 (72 h; Brachydanio rerio; Fresh water) |
| BCF other aquatic organisms 1 | 11,700.00 (Chlorella sp.) |
| Log Pow | < -1.73 (Experimental value; EU Method A.8: Partition Coefficient) |
| Bioaccumulative potential | Bioaccumulation: not applicable. |

### 12.4. Mobility in soil

| urea (57-13-6) | |
|---|---|
| Mobility in soil | Not applicable |

### 12.5. Other adverse effects

Effect on ozone layer : No additional information available

Effect on global warming : No known ecological damage caused by this product.
No additional information available

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : 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.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT

Not a dangerous good in sense of transport regulations

Other information : Not regulated by DOT.

ADR

UN-No. (ADR) : Not regulated by ADR

Transport by sea

UN-No. (IMDG) : Not regulated by IMDG

Air transport

UN-No. (IATA) : Not regulated by IATA

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| **BlueDEF Diesel Exhaust Fluid** | |
|---|---|
| EPA TSCA Regulatory Flag | Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | None. This material is not classified as hazardous under U.S. EPA regulations. |
| SARA Section 302 Threshold Planning Quantity (TPQ) | No extremely hazardous substances are in this product. |
| SARA Section 311/312 Hazard Classes | Urea. No hazards resulting from the material as supplied. |

| **urea (57-13-6)** | |
|---|---|
| EPA TSCA Regulatory Flag | Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

### 15.2. International regulations

CANADA

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

| **urea (57-13-6)** | |
|---|---|
| WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |

EU-Regulations
No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]
No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Not classified

National regulations

| BlueDEF Diesel Exhaust Fluid |
|---|
| DSL (Canada): The intentional ingredients of this product are listed |

| urea (57-13-6) |
|---|
| DSL (Canada): The intentional ingredients of this product are listed<br>EINECS (Europe): The intentional ingredients of this product are listed |

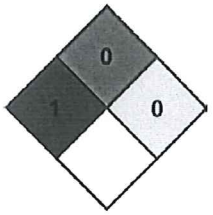
15.3. US State regulations

## SECTION 16: Other information

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.




HMIS III Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection : B - Safety glasses, Gloves

SDS GHS US (GHS HazCom 2012) OWI

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