
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Trade name: Premium Blue™ DIESEL EXHAUST FLUID

Recommended use of the chemical and restrictions on use

<table>
<thead>
<tr>
<th>Details of the supplier of the safety data sheet</th>
<th>Emergency telephone number</th>
<th>Regulatory Information Number</th>
<th>Product Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashland</td>
<td>1-800-ASHLAND (1-800-274-5263)</td>
<td>1-800-325-3751</td>
<td>614-790-3333</td>
</tr>
<tr>
<td>P.O. Box 2219</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columbus, OH 43216</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States of America</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EHS Customer <a href="mailto:Requests@ashland.com">Requests@ashland.com</a></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS Label element
This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Classification</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UREA</td>
<td>57-13-6</td>
<td></td>
<td>32.50</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice: No hazards which require special first aid measures.
If inhaled: If breathed in, move person into fresh air. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact: First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.

In case of eye contact: Remove contact lenses. Protect unharmed eye.

If swallowed: Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways) Headache Dizziness

Notes to physician: No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray Foam Carbon dioxide (CO2) Dry chemical

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: acid vapors Ammonia carbon dioxide and carbon monoxide Nitrogen oxides (NOx)

Specific extinguishing methods: Product is compatible with standard fire-fighting agents.

Further information: Standard procedure for chemical fires.

Special protective equipment: In the event of fire, wear self-contained breathing apparatus.
for firefighters

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions:
Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up:
Keep in suitable, closed containers for disposal.

Other information:
Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling:
Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8.

Conditions for safe storage:
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid:
No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>UREA</td>
<td>57-13-6</td>
<td>TWA</td>
<td>10 mg/m3 Total particulate.</td>
<td>WEEL</td>
</tr>
</tbody>
</table>

Engineering measures:
General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment
Respiratory protection:
No personal respiratory protective equipment normally required.
Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection : Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Physical state : liquid
Colour : colourless
Odour : ammoniacal
Odour Threshold : No data available
pH : 10
Melting point/freezing point : No data available
Boiling point/boiling range : No data available
Flash point : Not applicable
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper explosion limit : No data available
Lower explosion limit : No data available
Vapour pressure : 293.309 hPa
Relative vapour density : No data available
Relative density : 1.09 (20 °C)
Density : 1.09 g/cm³ (20 °C)
Solubility(ies)
Water solubility : soluble
Solubility in other solvents: No data available
Partition coefficient: n-octanol/water: No data available
Thermal decomposition: No data available
Viscosity
Viscosity, dynamic: No data available
Viscosity, kinematic: No data available
Oxidizing properties: No data available

SECTION 10. STABILITY AND REACTIVITY
Reactivity: No decomposition if stored and applied as directed.
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: Product will not undergo hazardous polymerization.
Incompatible materials: Acids
Chlorine
Nitrites
Strong bases
Strong oxidizing agents
Hazardous decomposition products: acid vapors
carbon dioxide and carbon monoxide
Nitrogen oxides (NOx)
Ammonia

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure: Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity
Not classified based on available information.
Components:
UREA:
Acute oral toxicity: LD 50 (Rat): 14,300 mg/kg
Skin corrosion/irritation
Not classified based on available information.

Components:
UREA:
Species: Rabbit
Result: Not irritating to skin

Serious eye damage/eye irritation
Not classified based on available information.

Product:
Remarks: Unlikely to cause eye irritation or injury.

Components:
UREA:
Species: Rabbit
Result: Slightly irritating to eyes

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Components:
UREA:
Genotoxicity in vitro: Test Type: Ames test
Result: negative

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

Further information
Product:
Remarks: No data available

Carcinogenicity:
IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

**Product:**
- Toxicity to fish: LC 50 (Fish): > 9,100 mg/l
  Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates: EC 50 (Daphnia magna (Water flea)): >= 10,000 mg/l
  Exposure time: 24 h

**Components:**
- UREA:
  - Toxicity to fish: LC 50 (Leuciscus idus (Golden orfe)): > 6,810 mg/l
    Exposure time: 96 h
  - LC 50 (Poecilia reticulata (guppy)): 17,500 mg/l
    Exposure time: 96 h
  - Toxicity to daphnia and other aquatic invertebrates: EC 50 (Water flea (Daphnia magna)): 3,910 mg/l
    Exposure time: 48 h
    Method: Static

Persistence and degradability

**Product:**
- Biodegradability: Result: Inherently biodegradable

**Components:**
- UREA:
  - Biodegradability: Result: Readily biodegradable
    Biodegradation: 96 %
    Exposure time: 16 d
    Method: OECD Test Guideline 301B
    Remarks: Expected to be ultimately biodegradable

Bioaccumulative potential

**Components:**
- UREA:
  - Bioaccumulation: Species: Green algae (Chlorella fusca vacuolata)
    Bioconcentration factor (BCF): 11,700
    Exposure time: 24 h
    Concentration: 0.05 mg/l
    Method: Static
  - Partition coefficient: n-octanol/water: log Pow: -2.11
Mobility in soil
Components: No data available
Other adverse effects
No data available
Product:
Additional ecological information : No data available

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
General advice : Dispose of in accordance with all applicable local, state and federal regulations.
Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

<table>
<thead>
<tr>
<th>REGULATION</th>
<th>ID NUMBER</th>
<th>PROPER SHIPPING NAME</th>
<th>HAZARD CLASS</th>
<th>SUBSIDIARY HAZARDS</th>
<th>PACKING GROUP</th>
<th>MARINE POLLUTANT / LTD. QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT - ROAD</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - RAIL</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - INLAND WATERWAYS</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSPORT CANADA - ROAD</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSPORT CANADA - RAIL</td>
<td>Not dangerous goods</td>
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<td></td>
</tr>
<tr>
<td>TRANSPORT CANADA - INLAND WATERWAYS</td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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Safety Data Sheet

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Version: 1.0

Premium Blue™ DIESEL EXHAUST FLUID
728770

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS
Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO
Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER
Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES
Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant | no

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMMONIUM HYDROXIDE ((NH4)(OH))</td>
<td>1336-21-6</td>
<td>1000</td>
<td>500000</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazards: No SARA Hazards

SARA 313 Component(s) SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Pennsylvania Right To Know

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
<td>50.00 - 70.00 %</td>
</tr>
<tr>
<td>UREA</td>
<td>57-13-6</td>
<td>30.00 - 50.00 %</td>
</tr>
</tbody>
</table>
New Jersey Right To Know
WATER 7732-18-5 50.00 - 70.00 %
UREA 57-13-6 30.00 - 50.00 %

California Prop 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:
TSCA: On TSCA Inventory
DSL: All components of this product are on the Canadian DSL.
AUSTR: On the inventory, or in compliance with the inventory
ENCS: On the inventory, or in compliance with the inventory
KECL: On the inventory, or in compliance with the inventory
PICCS: On the inventory, or in compliance with the inventory
IECSC: On the inventory, or in compliance with the inventory

Inventories
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information
Revision Date: 05/23/2015

<table>
<thead>
<tr>
<th>NFPA:</th>
<th>HMIS III:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>HEALTH</td>
</tr>
<tr>
<td>Health</td>
<td>FLAMMABILITY</td>
</tr>
<tr>
<td>Special hazard.</td>
<td>PHYSICAL HAZARD</td>
</tr>
</tbody>
</table>

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic
Full text of H-Statements referred to under sections 2 and 3.

Sources of key data used to compile the Safety Data Sheet
Ashland internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet:
ACGIH : American Conference of Industrial Hygienists
BEI : Biological Exposure Index
CAS : Chemical Abstracts Service (Division of the American Chemical Society).
CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
FG : Food grade
GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
H-statement : Hazard Statement
IATA : International Air Transport Association.
IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization
ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
IMDG : International Maritime Code for Dangerous Goods
ISO : International Organization for Standardization
logPow : octanol-water partition coefficient
LCxx : Lethal Concentration, for xx percent of test population
LDxx : Lethal Dose, for xx percent of test population
ICxx : Inhibitory Concentration for xx of a substance
Ecxx : Effective Concentration of xx
N.O.S.: Not Otherwise Specified
OECD : Organization for Economic Co-operation and Development
OEL : Occupational Exposure Limit
P-Statement : Precautionary Statement
PBT : Persistent, Bioaccumulative and Toxic
PPE : Personal Protective Equipment
STEL : Short-term exposure limit
STOT : Specific Target Organ Toxicity
TLV : Threshold Limit Value
TWA : Time-weighted average
vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
DOT : Department of Transportation
FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC : Hazardous Materials Information Review Commission
HMIS : Hazardous Materials Identification System
SAFETY DATA SHEET

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NFPA : National Fire Protection Association
NIOSH : National Institute for Occupational Safety and Health
OSHA : Occupational Safety and Health Administration
PMRA : Health Canada Pest Management Regulatory Agency
RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System