



**NORTH AMERICAN
LUBRICANTS, CO.**

MSDS

Material Safety Data Sheet

Page 1 of 9

Puratech Diesel Exhaust Fluid (DEF)

1. PRODUCT AND COMPANY IDENTIFICATION

Synonyms: DEF

Product Code: 11016X1DEF – PURATECH DEF 6X1 Case
1101DRUMDEF - PURATECH DEF Drum
1101TOTEDEF – PURATECH DEF Tote
1101DEF – PURATECH DEF Bulk

Generic Name: Diesel Exhaust Fluid/Urea
Responsible Party: North American Lubricants Company
8502 E. Via De Ventura, Suite 240
Scottsdale, AZ 85258

Help Desk: Mon. – Fri. 7 a.m. – 5 p.m. PST, 1-800-430-6252

EMERGENCY OVERVIEW

24 Hour Emergency Telephone Numbers:

Spill, Leak, Fire or Accident	California Poison
Call CHEMTREC	Control System
North America: (800) 424-9300	Cont. US: (800) 356-3129
Others: (703) 527-3887 (collect)	Outside US: (415) 821-5338

Appearance and Odor : Clear Liquid. Ammonia odor.

Health Hazards : Not classified as dangerous for supply or conveyance.

Safety Hazards : Not classified as flammable but will burn.

Environmental Hazards : Not classified as dangerous for the environment.

- Physical Form: Liquid
- Appearance: Clear
- Odor: ammonia odor

NFPA HAZARD CLASS: Health: 1 (Slight)
Flammability: 0 (Slight)

Issue Date: 3/10/10

Revised Sections: New MSDS

Status: Final New

Product Name: Puratech Diesel Exhaust Fluid (DEF)

Page 2 of 8

Reactivity: 0 (Stable)

Specific Hazard 0 (None)

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS

	<u>CAS number</u>	<u>% by weight</u>
Urea	57-13-6	32.5
Water	7732-18-5	67.5

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

Health Hazards : Not expected to be a health hazard when used under normal conditions.

Inhalation : May cause irritation to the nose, throat and upper respiratory area. Symptoms may include sore throat, sneezing, shortness of breath and coughing when inhaled in high concentrations.

Skin Contact : Prolonged or repeated skin contact without proper cleaning may cause mild skin irritation.

Eye Contact : May cause irritation to eyes.

Ingestion : May be harmful if swallowed. May cause irritation of mouth, throat, and stomach. Can cause headache, nausea, vomiting, dizziness, drowsiness and affect the central nervous system.

Environmental Hazards : Not classified as dangerous for the environment.

Additional Information : Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

4. FIRST AID MEASURES

General Information : Not expected to be a health hazard when used under normal conditions.

Inhalation : Move to fresh air. If symptoms persist, obtain medical advice.

Skin Contact : Remove contaminated clothing. Wash affected area thoroughly with soap and water. If persistent irritation occurs, obtain medical attention. Launder clothing prior to reuse.

Eye Contact : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

Ingestion : Do not induce vomiting, seek medical attention.

Advice to Physician : Treat symptomatically.

5. FIRE FIGHTING MEASURES

Issue Date: 3/10/10

Status: Final New

Revised Sections: New MSDS

Product Name: Puratech Diesel Exhaust Fluid (DEF)

Page 3 of 8

Non flammable under normal conditions. Clear fire area of all non-emergency personnel.

Flash point : > N/A

Upper / lower Flammability or Explosion limits: N/A

Auto ignition temperature : N/A

Oxidizing properties: None known.

Specific Hazards : Hazardous combustion products may include: carbon oxides, nitrogen oxides, ammonia, biuret, cyanuric acid and other irritating fumes and smoke

Suitable Extinguishing Media: Foam, water spray or fog, dry chemical powder, or carbon dioxide.

Protective Equipment for Firefighters: Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

Fire Fighting Instructions: Isolate immediate hazard area, 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 and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe all relevant local and international regulations.

Protective Measures : Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Clean Up Methods : Slippery when spilled. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Additional Advice : Local authorities should be advised if significant spillages cannot be contained. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center(phone number 800-424-8802).

7. HANDLING AND STORAGE

General Precautions : Use local exhaust ventilation if there is risk of inhalation of vapors, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to

Issue Date: 3/10/10

Status: Final New

Revised Sections: New MSDS

Product Name: Puratech Diesel Exhaust Fluid (DEF)

Page 4 of 8

prevent fires. Never use torch or fire near product. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Handling : Avoid prolonged or repeated contact with skin. Avoid inhaling vapor and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. "Empty" containers retain residue and may be dangerous. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Storage : Keep container tightly closed and in a cool, well-ventilated area. Storage Temperature: 12 - 86 °F. Protect container(s) against physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures : No specific ventilation requirements. Appropriate measures include: Adequate ventilation to control worker exposure to airborne contaminants. Use local exhaust ventilation if needed.

Personal Protective Equipment

Respiratory Protection : No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker specific conditions of use and meeting relevant legislation then use of respiratory protective equipment is recommended. Check with respiratory protective equipment suppliers.

Hand Protection : Where hand contact with the product may occur the use of gloves approved to relevant standards may provide suitable chemical protection. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly.

Eye Protection : Wear safety glasses or full face shield if splashes are likely to occur.

Protective Clothing : Skin protection not ordinarily required beyond standard issue work clothes.

Environmental Exposure Controls: Minimize release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear

Odor : ammoniacal

pH : 9.5

Issue Date: 3/10/10

Status: Final New

Revised Sections: New MSDS

Product Name: Puratech Diesel Exhaust Fluid (DEF)

Page 5 of 8

Initial Boiling Point and Boiling Range: N/A, Decomposition if stored above 86 °F ambient temperature

Freezing point : 12 °F

Vapor pressure : 6.4 kPa at 40 °C

Specific gravity : 1.094 @ 25 °C / 77 °F

Water solubility : Complete

Vapor density (air=1) : N/Av

Evaporation rate (nBuAc=1) : N/Av

10. STABILITY AND REACTIVITY

Stability : S table.

Conditions to Avoid : Extremes of temperature and direct sunlight.

Materials to Avoid : Strong oxidizing agents.

Hazardous Decomposition Products: Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment : Information given is based on data on the components and not the product itself

Skin Irritation : Expected to be slightly irritating to skin.

Eye Irritation : Expected to be slightly irritating to eyes.

Respiratory Irritation : Inhalation of vapors or mists may cause irritation.

Sensitization : Not expected to be a skin sensitizer.

Repeated Dose Toxicity : Not expected to be a hazard.

Mutagenicity : Not considered a mutagenic hazard.

Carcinogenicity : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP

Reproductive and Developmental Toxicity: Not expected to be a hazard.

12. ECOLOGICAL INFORMATION

The ecological characteristics of this product have not been fully investigated. While the product is biodegradable, it should not be allowed to enter drains, water sources, or deposited where it can affect ground or surface waters.

Bioaccumulation : This product does not show any bioaccumulation phenomena.

13. DISPOSAL CONSIDERATIONS

Issue Date: 3/10/10

Status: Final New

Revised Sections: New MSDS

Handling Disposal : Handle waste according to recommendations in Section 7.

Material Disposal : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.

Container Disposal : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

Local Legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

14. TRANSPORT INFORMATION

US Department of Transportation Classification (49CFR)

This material is not subject to DOT regulations.

IMDG

This material is not classified as dangerous under IMDG regulations.

IATA (Country variations may apply)

This material is not classified as dangerous under IATA regulations.]

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

U.S. Federal Regulations :

OSHA – This material is not classified as hazardous under OSHA regulations (29 CFR Part 1910.12000)

TSCA – All listed ingredients appear on the Toxic Substances Control Act inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302) – There are no ingredients present above reportable levels, which have reportable quantities.

SARA TITLE III Sec.302/304/311/312, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present.

SARA TITLE III Sec. 302/304 Emergency Planning and Notification: No hazards resulting from the material as supplied.

SARA TITLE III Sec. 302/304//311/312 Hazardous Chemicals: Urea

Issue Date: 3/10/10

Status: Final New

Revised Sections: New MSDS

Product Name: Puratech Diesel Exhaust Fluid (DEF)

Page 7 of 8

SARA TITLE III Sec. 311/312 MSDS Distribution – Chemical Inventory – Hazard Identification:
Urea: Immediate (acute) health hazard, Delayed (chronic) health hazard.
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 122 Accidental Release Prevention: No products were found.
Clean Air Act (CAA) 112 Regulated Flammable Substances: No products were found.
Clean Air Act (CAA) 112 Regulated Toxic Substances: No products were found.

State Regulatory Status

Connecticut Carcinogen Reporting: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida Substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Right-To-Know Chemical List: This product contains the following substances required to be disclosed on product labeling: Water (CAS # 7732-18-5, >60%), Urea (CAS # 57-13-6, 32.5%) Ammonia is considered a hazardous substance in the State of New Jersey.
New York Acutely Hazardous Substances: None of the components are listed.
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: None of the components are listed.
Rhode Island Hazardous Substances: None of the components are listed.
United States Inventory (TSCA 8b): all components are listed or exempted.

16. DOCUMENTARY INFORMATION

Issue Date: 3/10/10

17. DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. **HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE,**

Issue Date: 3/10/10 Status: Final New
Revised Sections: New MSDS

Product Name: Puratech Diesel Exhaust Fluid (DEF)

Page 8 of 8

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Issue Date: 3/10/10

Status: Final New

Revised Sections: New MSDS