

Section 1: IDENTIFICATION

Product name: Diesel Exhaust Fluid (DEF) - ultra pure urea solution, 32.5%
Product type: Liquid
Product uses: Industrial application, professional application
Non-specified industry: cleaning of waste gases
Common name: Diesel Exhaust Fluid, Ultra pure urea solution, 32.5%
Manufacturer: Top!Blue DEF
17899 S Susana Rd.
Rancho Dominguez, CA 90221
Tel. 310.635.0560
Responsible party: SPF Terminals/Top!Blue USA
phone: 310.635.0560
email: info@topblueusa.com
Emergency contact: MANAGING DIRECTOR - ROBERT SANTICH
310.548.4444
POISON CONTROL (eye/skin contact, inhalation, ingestion)
800.222.1222
Validation date: **February 09, 2016**

Section 2: HAZARD(S) IDENTIFICATION

Hazard statement(s): May cause slight irritation to the eyes, skin, digestive and respiratory system. Avoid breathing vapor or mist. Avoid contact with eyes. Avoid prolonged and/or repeated contact with skin. Use only with adequate ventilation. Keep container tightly closed and sealed until ready to use. Wash thoroughly after handling.

Prevention: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe mists. Use proper personal protective equipment.

Response: If on skin - wash with plenty of water for at least 15 minutes. If skin irritation occurs, get medical advise, Take off contaminated clothing and wash it before reuse.
If in eyes - rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, get medical attention.
If swallowed - call a doctor/physician if you feel unwell. Rinse mouth.

Storage: Store in a cool dry place out of sunlight between 12°F (11°C) and 86°F (30°C).

Disposal: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

OSHA/HCS Status: This material is not considered hazardous by the OSHA Hazard Communication Standard (26 CFR 1910.1200).

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	%
Urea	57-13-6	32.5
Water	7732-18-5	67.5

There are no additional ingredients present which within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

Section 4: FIRST-AID MEASURES

Eye contact: Rinse with plenty of running water. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Skin contact: Wash with soap and water. Get medical attention if irritation develops.

Inhalation: Avoid inhalation of vapor, spray or mist. If inhaled, move victim to fresh air.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical help immediately.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

Note to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 5: FIRE-FIGHTING MEASURES

Flammable properties: Not flammable by WHMIS/OSHA criteria.

Product flammability: In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media:

- Suitable:** Treat for surrounding material (water, carbon dioxide, foam and/or powder extinguisher).
- Non suitable:** None identified.

Special exposure hazards: Fire fighters should wear full protective clothing including self-contained breathing apparatus.

Hazardous thermal

Decomposition products: Decomposition products may include the following materials:

- carbon oxides

- nitrogen oxides
- ammonia

Avoid breathing dusts, vapors or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.

Special remarks on fire hazards: Non-flammable.

Special remarks on explosion hazards: None.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Keep unnecessary personnel away. Wear appropriate protective clothing (see Section 8). Stop/contain leak(s) if you can do so without risk.

Containment methods: Prevent entry to waterways, sewers, basements or confined areas.

Clean up Methods
Small spill: May be absorbed with non-reactive absorbent and placed in suitable, covered, labeled containers. Dispose of via licensed waste disposal contractor.

Large spill: Prevent entry into sewers, water courses, basements or confined areas. 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 licensed waste disposal contractor.

Note: See Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: HANDLING & STORAGE

Handling: Use good industrial hygiene practices in handling this product. Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

Note: See also Section 8 for additional information on hygiene measures.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well - ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Ingredient</u>	<u>Exposure limits</u>
Urea	OSHA Permissible Exposure Limit (PEL): none established ACGIH Threshold Limit Values (TLV): none established

Personal protective equipment

Eye/face protection: Safety glasses with side shields are recommended if splashing or contact is likely

Hand protection: Impervious gloves (Nitrile, Viton, Butyl) are recommended if prolonged or repeated contact is likely.

Skin and body protection: Not generally required.

Respiratory protection: Not generally required. If exposure guideline levels may be exceeded and/or misty condition prevails, use NIOSH approved respirator.

Other protective measures: Avoid breathing vapors. Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

Section 9: PHYSICAL & CHEMICAL PROPERTIES

Physical state:	Liquid
Appearance:	Clear
Color:	Colorless
Form:	Liquid
Odor:	Slight (ammonia)
pH:	9.8-10
Freezing temp.:	-11°C (12.2°F)
Boiling/condensation point:	104°C (219.2°F)
Density:	4.13 kg/3.785L (9.1 lbs/USG)
Specific gravity:	1.087 - 1.093 g/cm ³ @ 20°C (68°F)
Sublimation temperature:	Not determined
Solubility in water:	>100g/l; 100%

Section 10: STABILITY & REACTIVITY

Chemical stability: Stable under recommended storage conditions.
Conditions to avoid: Avoid heating above 130°C (266°F). Avoid contamination by any source including metals, dust and organic materials.

Hazardous decomposition products: May include, but not limited to (when heated): oxides of carbon, oxides of nitrogen, ammonia, cyanic acid, cyanic acid, biuret.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Section 11: TOXICOLOGICAL INFORMATION

Component analysis - LC50

<u>Ingredient(s)</u>	<u>LC50</u>
UREA	Not available

Component analysis - Oral LD50

<u>Ingredient(s)</u>	<u>LD50</u>
UREA	11,500-13,000 mg/kg mouse; 14,300-15,000 mg/kg rat 510 mg/kg cattle

Effects of acute exposure

Eye: May cause irritation
 Skin: May cause irritation
 Inhalation: Not available
 Ingestion: May cause stomach distress, nausea or vomiting

Sensitization: Non hazardous by WHMIS/OSHA criteria
Chronic effects: Non hazardous by WHMIS/OSHA criteria
Carcinogenicity: Non hazardous by WHMIS/OSHA criteria
Mutagenicity: Non hazardous by WHMIS/OSHA criteria
Reproductive effects: Non hazardous by WHMIS/OSHA criteria
Teratogenicity: Non hazardous by WHMIS/OSHA criteria

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: No known significant effects or critical hazards.

Freshwater fish species data

UREA (57-13-6) 96 Hr LC50 Barillius barna: >9100 mg/L

Microtox data

UREA (57-13-6) 24 Hr EC50 Daphnia magna straus: >10000mg/L

Environmental effects

Not available

Aquatic toxicity

Not available

Persistence/degradability	Not available
Bioaccumulation/accumulation	Not available
Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available
Other adverse effects	Not available

Section 13: DISPOSAL CONSIDERATIONS

Methods of disposal: Dispose of contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Note: Refer to Section 7: Handling & Storage and Section 8: Exposure Controls/ Personal Protection for additional handling information and protection of employees.

Section 14: TRANSPORT INFORMATION

US Dept. of Transportation (DOT): Not regulated as dangerous goods.

Transportation of dangerous goods (TDG - Canada): not regulated as dangerous goods.

Section 15: REGULATORY INFORMATION

US Federal regulations This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are in the US EPA TSCA Inventory list.

Occupational Safety and Health Administration (OSHA)
29 CFR 1910.1200 hazardous chemical

Superfund Ammendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate hazard: yes
Delayed hazard: no
Fire hazard: no
Pressure hazard: no
Reactivity hazard: no

Section 302: Extremely hazardous substance - no
Section 311: Hazardous chemical - yes

Clean Air Act (CAA)	Not available
Clean Water Act (CWA)	Not available
Safe Drinking Water Act (SDWA)	Not available
Drug Enforcement Agency (DEA)	Not available

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RED/BOLD Indicates information that has changed from previous version.

NOTE: The information in this document is believed to be correct as of the date issued. The information and recommendation herein are taken from data contained in independent industry recognized references including NIOSH, OSHA, ANSI and NFPA.

This Safety Data Sheet is provided as an information resource only. It should not be taken as a warranty or representation for which Top!Blue assumes legal liability. Final determination of suitability of any material is the sole responsibility of the user.

All materials may present unknown hazards and should be used with caution. This information does not apply to that material when combined with other material(s) or when used otherwise than described herein. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.