

DEFendal Diesel Exhaust Fluid

MSDS Number: 4103

Revision Date: November 22, 2010

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1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

KOST USA, Inc
1000 Tennessee Ave.

Cincinnati, OH 45229

Contact: Customer Service
Telephone Number: (800) 661-9391
FAX Number: (513) 492-5555
E-Mail: sales@kostusa.com
Web: www.kostusa.com

Product Name: DEFendal Diesel Exhaust Fluid
Revision Date: November 22, 2010
Version: 2
MSDS Number: 4103
Common Name: Urea
CAS Number: 57-13-6
Product Code: 4103
Chemical Family: Urea
Product Use: NOx reducing agent

Emergency Telephone Number: 800-424-9300 (Chemtrec)

2 HAZARDS IDENTIFICATION

Route of Entry: Inhalation

Target Organs:

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin Contact: No known effects.

Eye Contact: No known effects.

Ingestion: No known effects.

HMIS® Rating H*0/F0/PH0

NFPA-ratings (scale 0-4): Health = 0, Fire = 0, Reactivity = 0

This is not a WHMIS Controlled substance.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Perc.	Chemical Name
57136	30-35%	Urea
7732185	65-70%	Water

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4 FIRST AID MEASURES

- Inhalation:** If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
- Skin Contact:** Remove contaminated clothing and wash before reuse. Promptly flush skin with water until all chemical is removed. Get medical attention if needed.
- Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Remove contact lenses after initial 1-2 minutes of flushing and continue flushing. If effects occur get immediate medical attention.
- Ingestion:** Rinse mouth with water. Do not induce vomiting. Get medical attention if needed.

Notes to Physician: 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 of 48 hours.

5 FIRE FIGHTING MEASURES

- Flash Point:** Non-flammable
- Flammability Classification:** Non-flammable

Extinguishing Media: Use an extinguishing agent suitable for the surrounding fire.

Specific Hazards: Material will not burn unless preheated. Containers exposed to intense heat from fires should be cooled with large quantities of water.

Protective Equipment: Wear full protective clothing and self-contained breathing apparatus (SCBA).

Hazardous Combustion Products: May contain the original material in addition but not limited to: Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides and Ammonia

6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Isolate area. Avoid contact with spilled material. Watch out for slippery conditions when spillage. Refer to Section 8 of this Material Safety Data Sheet for personal protective equipment.

Clean Up Methods: Contain spilled material if possible. Collect in suitable and properly labeled containers. Small spills: Pick up excess with inert absorbent material and place into separate waste container. Large Spills: Dike material. Keep away from drains and ground water. Pump into suitable and properly containers or salvage truck for recovery or safe disposal. See Section 13 for disposal considerations.

Additional Advice: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

7 HANDLING AND STORAGE

- Handling Precautions:** Do not swallow. Avoid contact with eyes, skin, or clothing. Consider normal working hygiene. Wash thoroughly after handling. Wash clothing before reuse and decontaminate or discard contaminated shoes. Do not expose containers to open flame, excessive heat, or direct sunlight. Do not puncture or drop containers. Handle with care and avoid spillage on the floor (slippage). Keep material out of reach of children. Use local exhaust over processing area.
- Storage Requirements:** Keep away from heat, sparks, and flames. Protect container and its fittings from physical damage. Store in cool/dry area. Suitable packing materials.

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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use mechanical (general) ventilation to control airborne levels below exposure guidelines.

Protective Equipment: HMIS PP, B | Goggles, Gloves

Eyes/Face Protection: Usage of safety glasses/ goggles is recommended.

Skin Protection: Personal protective equipment should be selected based on task involved. Launder contaminated clothing before use.

Hand Protection: Use of gloves approved to relevant standards made from the following materials may provide suitable protection: PVC, Neoprene rubber or nitrile rubber. Personal hygiene is a key element of effective hand care.

Respiratory Protection: If ventilation does not control airborne concentrations below exposure limits of 10 mg/m³ (WEEL, TWA), select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.

Ingestion: Use good personal hygiene. Do not consume food in the work area. Wash hands before eating, drinking, smoking or using the restroom..

Exposure Guidelines/Other:

Exposure Limits:

Component	List	Type	Value
Urea	vWEEL	TWA	10 mg/m ³

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless

Physical State: Liquid

Odor: Ammoniacal

pH: 9.0 - 10.0

Vapor Pressure: 48 mmHg @ 40°C

Vapor Density:

Boiling Point: 100°C (212°F)

Freezing/Melting Pt.: -11.5°C (11.3°F)

Solubility: Completely

Spec Grav./Density: 1.09 @ 20°C

10 STABILITY AND REACTIVITY

Stability: Product is stable under normal conditions.

Conditions to avoid: High Temperature.

Materials to avoid (incompatibility): Oxidizing Agents. Acids; Bases. Reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.

Hazardous Decomposition products: Combustion will produce oxides of carbon and nitrogen and ammonia.

Hazardous Polymerization: Will not occur.

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11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

Ingestion: No known significant effects.

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin irritation: No known significant effects.

Eye irritation: No known significant effects.

Sensitization: Not a skin sensitizer.

Chronic Toxicity and Carcinogenicity: No known significant effects.

Repeated Dose Toxicity: No specific data.

Mutagenicity: No specific data.

Reproductive and Developmental Toxicity: No specific data.

12 ECOLOGICAL INFORMATION

Acute Toxicity:

Fish: Low toxicity

Aquatic Invertebrates: Low toxicity

Algae: Low Toxicity

Microorganisms: Low Toxicity

Mobility: Dissolves in water. If product enters soil, it will be highly mobile and may contaminate ground water.

Persistence/degradability: Readily biodegradable.

Bioaccumulation: Does not bioaccumulate significantly.

13 DISPOSAL CONSIDERATIONS

This material, if discarded as produced, is not a RCRA "listed" hazardous waste. However, it should be fully characterized for toxicity and possible reactivity prior to disposal (40 CFR 261). Use which results 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.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

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14 TRANSPORT INFORMATION

US DOT Classification (49CFR)

NOT REGULATED

Canadian Road and Rail Shipping Classification

NOT REGULATED

IMDG

NOT REGULATED

IATA/ICAO

NOT REGULATED

15 REGULATORY INFORMATION

OSHA Hazard Communication Standard:

This product is not a "Hazardous Chemical" as defined by the OSHA 29CFR 1910.1200

SARA Hazardous Categories Section 311/312 (EPCRA):

Immediate (Acute): yes

Delayed (Chronic): yes

Fire: no

Reactive: no

Sudden Release: no

SARA Toxic Release Inventory Section 313 (TRI):

NONE

California Safe Water Drinking and Toxic Enforcement Act (Proposition 65)

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

Notification Status

DSL (CA) Listed

TSCA (US) Listed

COMPONENT / (CAS/PERC) / CODES

*Urea (57136 30-35%) TSCA

*Water (7732185 65-70%) TSCA

REGULATORY KEY DESCRIPTIONS

TSCA = Toxic Substances Control Act



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OTHER INFORMATION

Disclaimer:

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END OF MSDS DOCUMENT