



Musket DEF

Safety Data Sheet

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

Date of issue: 13 July 2015 Revision date: 26 September 2019 Supersedes: 13 July 2015 Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Musket DEF

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Diesel Exhaust Fluid

1.3. Supplier

Manufacturer/Supplier:
Musket Corporation
2929 Allen Parkway, Suite 4100
Houston, Texas
77019, USA
Phone: 713-332-5727

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300; Outside the US/Canada +1-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Water	(CAS-No.) 7732-18-5	28 – 58.8	Not classified
Urea	(CAS-No.) 57-13-6	40.0 – 70.0	Not classified

Full text of hazard classes and H-statements : see section 16

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 : When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Discontinue use and obtain medical attention if irritation develops and persists.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.

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

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4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Prolonged exposure to liquid may cause a mild irritation.
Symptoms/effects after skin contact	: May cause mild skin irritation.
Symptoms/effects after eye contact	: Prolonged exposure to liquid may cause a mild irritation.
Symptoms/effects after ingestion	: Ingestion of small amounts would not be expected to produce toxicity.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Specific hazards arising from the chemical

Fire hazard	: The product is not flammable. Hazardous combustion products. carbon oxides (CO and CO2). Nitrogen oxides (NOx). Ammonia.
Explosion hazard	: Product is not explosive.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.
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	: Avoid breathing dust, mist or spray. Avoid prolonged contact with eyes, skin and clothing.
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6.1.1. For non-emergency personnel

Protective equipment	: Personal protective equipment. For further information refer to section 13.
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up	: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: When heated to decomposition, emits toxic fumes.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Comply with applicable regulations.
Storage conditions	: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from extremely high or low temperatures, incompatible materials.

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Incompatible materials : Strong acids. Strong bases. Strong oxidizers. Strong alkalis.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Musket DEF	
No additional information available	
Water (7732-18-5)	
No additional information available	
Urea (57-13-6)	
USA - AIHA - Occupational Exposure Limits	
WEEL TWA (mg/m ³)	10 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

In case of splash hazard: safety glasses.

Materials for protective clothing:

Not applicable

Hand protection:

Wear chemically resistant protective gloves.

Eye protection:

In case of splash hazard: chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn

Personal protective equipment symbol(s):



Other information:

When using do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear, colorless liquid.
Color	: Colorless
Odor	: Faint odor of ammonia
Odor threshold	: No data available
pH	: 7 – 10 (depending upon free ammonia)
Melting point	: 33 - 135 °F (0.56 - 57°C) (50% urea solution salts out at 62°F; 70% urea solution salts out 135°F)
Freezing point	: Not available

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Boiling point	: 223°F (50% urea solution boiling point)
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.087 - 1.903 g/cm ³ @ 20°C (68°F)
Specific gravity / density	: 9.28lb/gal (50% urea solution); 9.80lb/gal (70% urea solution)
Solubility	: Water: Soluble
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Extremely high or low temperatures. Incompatible materials.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers. Strong alkalis.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Nitrogen oxides (NO_x). Ammonia.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

Water (7732-18-5)	
LD50 oral rat	> 90 ml/kg
Urea (57-13-6)	
LD50 oral rat	5000 - 15000 mg/kg
LC50 inhalation rat (mg/l)	Urea dust at 22 mg/m ³ caused mild irritation (species not specified)

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7 – 10 (depending upon free ammonia)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7 - 10
Respiratory or skin sensitization	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)

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Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic	: No data available
Likely routes of exposure	: Ingestion. Inhalation. Skin and eye contact.
Potential Adverse human health effects and symptoms	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Prolonged exposure to liquid may cause a mild irritation.
Symptoms/effects after skin contact	: May cause mild skin irritation.
Symptoms/effects after eye contact	: Prolonged exposure to liquid may cause a mild irritation.
Symptoms/effects after ingestion	: Ingestion of small amounts would not be expected to produce toxicity.

SECTION 12: Ecological information

12.1. Toxicity

Urea (57-13-6)	
LC50 fish 1	16200 - 18300 mg/l (Exposure time: 96 h - Species: Poecilia reticulata)
EC50 Daphnia 1	3910 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Urea (57-13-6)	
BCF fish 1	< 10
Log Pow	-1.59 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Comply with local regulations for disposal.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

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SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Urea (57-13-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

Urea (57-13-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Water (7732-18-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Urea (57-13-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Water (7732-18-5)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Urea (57-13-6)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

No additional information available

SECTION 16: Other information

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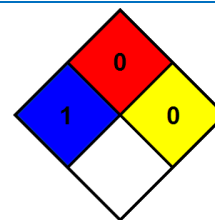
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Other information : None.

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- NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.
- NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



- Hazard 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.

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.