



Musket DEF

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

MUSKET

Date of issue: 07/13/2015

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : Musket DEF

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Diesel Exhaust Fluid

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Musket Corporation
1111 Bagby Street, Suite 2400
Houston, Texas 77002, 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: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Other hazards

other hazards which do not result in 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. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
Water	(CAS No) 7732-18-5	67.5	Not classified
Urea	(CAS No) 57-13-6	32.5	Not classified

Full text of 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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/injuries after inhalation : Prolonged exposure to liquid may cause a mild irritation.

Symptoms/injuries after skin contact : May cause mild skin irritation.

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- Symptoms/injuries after eye contact : Prolonged exposure to liquid may cause a mild irritation.
Symptoms/injuries after ingestion : Ingestion of small amounts would not be expected to produce toxicity.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. 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. Special hazards arising from the substance or mixture

- Fire hazard : The product is not flammable. Hazardous combustion products. Carbon oxides (CO and CO₂). Nitrogen oxides (NO_x). Ammonia.
Explosion hazard : Product is not explosive.
Reactivity : Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.
Protective equipment for firefighters : 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.

6.1.1. For non-emergency personnel

- Protective equipment : Personal protective equipment. For further information refer to section 8: Exposure-controls/personal protection.
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 practices. 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.
Incompatible materials : Strong acids. Strong bases. Strong oxidizers. Strong alkalis.

7.3. Specific end use(s)

Refer to section 1.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure 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.
- 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.
- 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 : 9.8 - 10
- Melting point : No data available
- Freezing point : -12°C (11°F)
- Boiling point : 104°C (219°F)
- Flash point : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Flammability (solid, gas) : No data available
- Explosive limits : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available
- Vapor pressure : No data available
- Relative density : No data available
- Relative vapor density at 20 °C : No data available
- Specific gravity / density : 9.0909 lbs./USG - 4.13 kg / 3.785L @ 20°C (68°F)
- Specific Gravity : 1.087 – 1.903 @ 20°C (68°F)
- Solubility : 100%
- Log Pow : No data available
- Log Kow : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Viscosity : No data available
- Viscosity, kinematic : No data available
- Viscosity, dynamic : No data available

9.2. Other information

No additional information available

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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

Likely routes of exposure : Ingestion; Inhalation; Skin and eye contact

Acute toxicity : 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)
ATE US (oral)	5000,000 mg/kg bodyweight

Skin corrosion/irritation : Not classified
(Based on available data, the classification criteria are not met)
pH: 9.8 - 10

Serious eye damage/irritation : Not classified
(Based on available data, the classification criteria are not met)
pH: 9.8 - 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)

Reproductive toxicity : Not classified
(Based on available data, the classification criteria are not met)

Specific target organ toxicity (single exposure) : Not classified
(Based on available data, the classification criteria are not met)

Specific target organ toxicity (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)

Potential Adverse human health effects and symptoms : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/injuries after inhalation : Prolonged exposure to liquid may cause a mild irritation.

Symptoms/injuries after skin contact : May cause mild skin irritation.

Symptoms/injuries after eye contact : Prolonged exposure to liquid may cause a mild irritation.

Symptoms/injuries after ingestion : Ingestion of small amounts would not be expected to produce toxicity.

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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

Effect on the global warming : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of waste in accordance with local regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

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)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Urea (57-13-6)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

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)	

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Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

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 Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

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 Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

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