

Material Safety Data Sheet**1. MATERIAL AND COMPANY IDENTIFICATION**

Material Name : Ultra Low Sulfur Diesel Fuel 2 (S-15 ppm)
Uses : Fuel for on-road diesel-powered engines.

Manufacturer/Supplier : Motiva Enterprises LLC
PO BOX 4540
Houston, TX 77210-4540
USA

MSDS Request : 877-276-7285

Emergency Telephone Number

Spill Information : 877-242-7400

Health Information : 877-504-9351

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity	CAS No.	Concentration
Fuels, diesel, no.2	68476-34-6	100.00 %

Dyes and markers can be used to indicate tax status and prevent fraud.

Contains/may contain full range straight run middle distillate, CAS # 68814-87-9.

Contains/may contain light catalytic cracked distillate, CAS # 64741-59-9.

Contains/may contain hydrotreated middle distillate, CAS # 64742-46-7.

Contains organic sulfur compounds.

Contains Benzene, CAS # 71-43-2.

3. HAZARDS IDENTIFICATION

Emergency Overview	
Appearance and Odour	: Clear, bright liquid. Hydrocarbon.
Health Hazards	: Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness. A component or components of this material may cause cancer. This product contains benzene which may cause leukaemia (AML acute myelogenous leukaemia).
Safety Hazards	: Combustible liquid. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire.
Environmental Hazards	: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Health Hazards**Inhalation**

: Slightly irritating to respiratory system. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache and nausea.

Skin Contact

: May cause moderate irritation to skin. Repeated exposure may cause skin dryness or cracking.

Material Safety Data Sheet

- (smoke). Carbon monoxide. Oxides of sulphur. Unidentified organic and inorganic compounds. Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. Flammable vapours may be present even at temperatures below the flash point.
- Suitable Extinguishing Media** : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable Extinguishing Media** : Do not use water in a jet.
- Protective Equipment for Firefighters** : Wear full protective clothing and self-contained breathing apparatus.
- Additional Advice** : Keep adjacent containers cool by spraying with water.

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 the relevant local and international regulations. Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly.

- Protective measures** : Do not breathe fumes, vapour. Do not operate electrical equipment. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.
- Clean Up Methods** : For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.
- Additional Advice** : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. Maritime spillages should be dealt with using a Shipboard Oil Pollution Emergency Plan (SOPEP), as required by MARPOL Annex 1 Regulation 26. U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Chapter 15) to the National

Material Safety Data Sheet

- ignition. Partly filled containers present a greater hazard than those that are full, therefore handling, transfer and sampling activities need special care.
- Recommended Materials** : For containers, or container linings use mild steel, stainless steel. Aluminium may also be used for applications where it does not present an unnecessary fire hazard. Examples of suitable materials are: high density polyethylene (HDPE) and Viton (FKM), which have been specifically tested for compatibility with this product. For container linings, use amine-adduct cured epoxy paint. For seals and gaskets use: graphite, PTFE, Viton A, Viton B.
- Unsuitable Materials** : Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene. However, some may be suitable for glove materials.
- Container Advice** : Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.
- Additional Information** : Ensure that all local regulations regarding handling and storage facilities are followed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Occupational Exposure Limits**

Material	Source	Type	ppm	mg/m3	Notation
Fuels, diesel, no.2	ACGIH	TWA(Vapor and aerosol.)		100 mg/m3	as total hydrocarbons
Fuels, diesel, no.2	ACGIH	SKIN_DES(Vapor and aerosol.)			Can be absorbed through the skin.as total hydrocarbons
Fuels, diesel, no.2	ACGIH	TWA(Inhalable fraction and vapor.)		100 mg/m3	as total hydrocarbons
Fuels, diesel, no.2	ACGIH	SKIN_DES(Inhalable fraction and vapor.)			Can be absorbed through the skin.as total hydrocarbons
Benzene	ACGIH	TWA	0.5 ppm		
Benzene	ACGIH	STEL	2.5 ppm		
Benzene	ACGIH	SKIN_DES			Can be absorbed through the skin.
Benzene	OSHA	TWA	1 ppm		
Benzene	OSHA	STEL	5 ppm		
Benzene	OSHA	OSHA_ACT	0.5 ppm		
Benzene	OSHA Z1A	TWA	1 ppm		
Benzene	OSHA Z1A	STEL	5 ppm		
Benzene	SHELL IS	TWA	0.5 ppm	1.6 mg/m3	
Benzene	SHELL IS	STEL	2.5 ppm	8 mg/m3	

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Appearance : Clear, bright liquid.
Odour : Hydrocarbon.
Flash point : > 52 °C / 126 °F (ASTM D-93 / PMCC)
Lower / upper Flammability : 0.5 - 4.4 %(V)
or Explosion limits
Auto-ignition temperature : 260 °C / 500 °F
Specific gravity : 0.85

10. STABILITY AND REACTIVITY

Stability : Stable under normal conditions of use.
Conditions to Avoid : Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid : Strong oxidising agents.
Hazardous Decomposition : Hazardous decomposition products are not expected to form
Products during normal storage.
Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment : Information given is based on product data, a knowledge of the components and the toxicology of similar products.
Acute Oral Toxicity : Low toxicity: LD50 >2000 mg/kg , Rat
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Acute Dermal Toxicity : Low toxicity: LD50 >2000 mg/kg , Rabbit
Acute Inhalation Toxicity : Low toxicity: LC50 >20 mg/l / 1.00 h, Rat
High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin Irritation : May cause moderate skin irritation (but insufficient to classify).
Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.
Eye Irritation : Slightly irritating.
Respiratory Irritation : Slightly irritating.
Sensitisation : Not a skin sensitizer.
Repeated Dose Toxicity : Kidney: caused kidney effects in male rats which are not considered relevant to humans
Mutagenicity : Mutagenic; positive in in-vivo and in-vitro assays.
Carcinogenicity : Repeated skin contact has resulted in irritation and skin cancer in animals.
Known human carcinogen. (Benzene)
May cause leukaemia (AML - acute myelogenous leukemia).
(Benzene)

Material	: Carcinogenicity Classification
Fuels, diesel, no.2	: ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans.

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- Container Disposal** : Send to drum recoverer or metal reclaimer. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION**US Department of Transportation Classification (49CFR)**

Identification number UN 1202
Proper shipping name Diesel fuel
Class / Division 3

Packing group III

Emergency Response Guide No. 128

IMDG

Identification number UN 1202
Proper shipping name DIESEL FUEL
Class / Division 3
Packing group III
Marine pollutant: Yes

IATA (Country variations may apply)

Identification number UN 1202
Proper shipping name Diesel fuel
Class / Division 3
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15. REGULATORY INFORMATION

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

Federal Regulatory Status

- Additional Information** : IARC has classified diesel exhaust emissions as a Class 2A carcinogen - probably carcinogenic to humans. Steps should be taken to prevent personal exposure to diesel exhaust emissions.

Material Safety Data Sheet

safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters.

- NFPA Rating (Health, Fire, Reactivity)** : 1, 2, 0
- MSDS Version Number** : 5.0
- MSDS Effective Date** : 05/07/2010
- MSDS Revisions** : A vertical bar (|) in the left margin indicates an amendment from the previous version.
- MSDS Regulation** : The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- Uses and Restrictions** : This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier.
This product is not to be used as a solvent or cleaning agent; for lighting or brightening fires; as a skin cleanser.
- MSDS Distribution** : The information in this document should be made available to all who may handle the product.
- Disclaimer** : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.

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Occupational Exposure Limits

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Lower / upper Flammability : 0.5 - 4.4 %(V)
or Explosion limits
Auto-ignition temperature : 260 °C / 500 °F
Specific gravity : 0.85

10. STABILITY AND REACTIVITY

Stability : Stable under normal conditions of use.
Conditions to Avoid : Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid : Strong oxidising agents.
Hazardous Decomposition Products : Hazardous decomposition products are not expected to form during normal storage.
Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment : Information given is based on product data, a knowledge of the components and the toxicology of similar products.
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Respiratory Irritation : Slightly irritating.
Sensitisation : Not a skin sensitiser.
Repeated Dose Toxicity : Kidney: caused kidney effects in male rats which are not considered relevant to humans
Mutagenicity : Mutagenic; positive in in-vivo and in-vitro assays.
Carcinogenicity : Repeated skin contact has resulted in irritation and skin cancer in animals.
Known human carcinogen. (Benzene)
May cause leukaemia (AML - acute myelogenous leukemia).
(Benzene)

Material	Carcinogenicity Classification
Fuels, diesel, no.2	ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans.

Material Safety Data SheetAccording to OSHA Hazard Communication Standard, 29 CFR
1910.1200

- Container Disposal** : Send to drum recoverer or metal reclaimer. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations.
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Identification number UN 1202
Proper shipping name Diesel fuel
Class / Division 3

Packing group III

Emergency Response Guide No. 128

IMDG

Identification number UN 1202
Proper shipping name DIESEL FUEL
Class / Division 3
Packing group III
Marine pollutant: Yes

IATA (Country variations may apply)

Identification number UN 1202
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Class / Division 3
Packing group III

15. REGULATORY INFORMATION

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

Federal Regulatory Status

- Additional Information** : IARC has classified diesel exhaust emissions as a Class 2A carcinogen - probably carcinogenic to humans. Steps should be taken to prevent personal exposure to diesel exhaust emissions.

Material Safety Data Sheet

safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters.

NFPA Rating (Health, Fire, Reactivity) : 1, 2, 0

MSDS Version Number : 2.0

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Disclaimer : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.