

	<h1 style="text-align: center;">MATERIAL SAFETY DATA SHEET</h1>	<p>Date of Revision: 13th August 2014</p> <p>Revision: 0001</p>
		<p>MSDS No: 0001</p>

ECON HFO



1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Trade name:	ECON HFO
Synonyms:	Light Oil, Oil Distillate, LO10
Usages:	Heating Fuel, Fuel for boilers, industrial furnaces and other combustion equipment.
Restrictions:	This product should not be used in applications other than those recommended by the manufacturer without first seeking the advice.
Company:	Mido House Corner Jochem van Bruggen & Uys Krige street Randhart Alberton 1449
Information (Product safety)	
Telephone:	+27 (11) 867 7522
E-mail address:	info@econoil.co.za
Emergency telephone:	TBA
Spill Response:	TBA

2. HAZARDS IDENTIFICATION

Identification of the risks

R40 Limited evidence of a carcinogenic effect (Annex III of European Union Directive 67/548/EEC)

	<p>COMBUSTIBLE LIQUID. HARMFUL IF SWALLOWED. ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. KEEP AWAY FROM HEAT, SPARKS AND FLAME. AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE. DO NOT BREATHE VAPOR OR MIST. DO NOT INGEST. IF INGESTED, DO NOT INDUCE VOMITING. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA. RISK OF CANCER DEPENDS ON DURATION AND LEVEL OF EXPOSURE. USE ONLY WITH ADEQUATE VENTILATION. KEEP CONTAINER TIGHTLY CLOSED AND SEALED UNTIL READY FOR USE. WASH THOROUGHLY AFTER HANDLING.</p>
	

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Particular risks to human beings and the environment

Harmful

Emergency response data

Light Amber Liquid. Material is combustible. Product can accumulate a static charge and release vapours which may cause a fire or explosion. DOT ERG No. : 128

3. COMPOSITION/INFORMATION ON INGREDIENTS

Physical State: Liquid

Preparation description: Streams obtained from the atmospheric distillation of crude oil and containing saturated and aromatic hydrocarbons, mainly in the range C9 to C25 and boiling in the range 150 to 400°C, and additives

4. FIRST AID MEASURES

Inhalation: Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with mechanical device or use mouth-to-mouth resuscitation.

Skin contact: Remove contaminated clothing. Dry wipe exposed skin and cleanse with hand cleaner, soap and water. Launder contaminated clothing before reuse.

Eye contact: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Ingestion: Seek immediate medical attention. Do not induce vomiting.

Note to doctors: Material if aspirated into the lungs may cause chemical pneumonitis. Skin contact may aggravate an existing dermatitis. Treat appropriately.

5. FIRE FIGHTING MEASURES

Flammability of the product: Combustible liquid

Extinguishing media: Carbon dioxide, foam, dry chemical and water fog.

Special fire fighting procedure: Water spray should only be used to keep fire-exposed containers cool, flush spills away from exposures, disperse vapors and protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, municipal sewers, or drinking water supply.

Special protective equipment for firefighters: For fires in enclosed areas, fire fighters must use Self-Contained

Breathing Apparatus. Unusual fire and explosive hazards: Hydrogen sulphide may be present which can accumulate to hazardous levels in enclosed spaces.

Products of decomposition: Fumes, smoke, carbon monoxide, sulphur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

Flash Point: > 55 °C (ASTM D-93)

NFPA Hazard Id : Health: 3; Flammability: 2; Reactivity: 0

Hazardous combustion products: Combustion products may include the following: carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide

Protective clothing (fire): Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist.

Environmental precautions:

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up:

Soak up with inert absorbent material and dispose of as hazardous waste.

Additional advice

Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

Handling

Safe handling advice:

Avoid inhalation of vapour or mist. Wear personal protective equipment.

Advice on protection against fire and explosion:

Keep away from heat and sources of ignition.

Do not ingest. Never siphon by mouth. If ingested, do not induce vomiting. Put on appropriate personal Protective equipment. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Storage

Requirements for storage areas and containers

Keep containers tightly closed in a dry, cool and well-ventilated place.

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Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Eliminate all ignition sources. Separate from oxidizing materials. 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Contains no substances with occupational exposure limit values.

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

Contains no substances with occupational exposure limit values.

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator with combination filter for vapour/particulate

Hand protection

Impervious gloves

Eye protection

Safety glasses with side-shields

Skin and body protection

Protective suit, Safety shoes

Hygiene measures

Wash hands before work breaks and immediately after handling the product.

Protective measures

Wear suitable protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	dark brown
Form	liquid
State of matter	liquid
Odour	Hydrocarbon-like
Boiling point/boiling range	204 °C
Flash point	> 55 °C; Closed cup
Density	0.9850 g/cm ³ ; 20 °C
Water solubility	Immiscible
Kinematic viscosity	90 -150 mm ² /s at 50 °C

10. STABILITY AND REACTIVITY

Stability : Stable under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : (Rats): Harmful (LD50: Greater than 200 but 2000 mg/kg or less).Based on testing of similar products and/or components.

Acute inhalation toxicity : (Rats): Practically non-toxic (LC50: greater than 5mg/l). Based on testing of similar products and/or the components.

Acute dermal toxicity : (Rabbits): Practically non-toxic (LD50: greater than 2000 mg/kg).Based on testing of similar products and/or the components.

Skin irritation : (Rabbits): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). Based on testing of similar products and/or the components.

Eye irritation : (Rabbits): Practically non-irritating. (Draize score: greater than 0 but 6 or less). Based on testing of similar products and/or the components.

Sensitization : Aromatic oils contain polycyclic compounds implicated in allergic skin sensitization and photosensitization studies in both animals and humans. Repeated dose toxicity : Repeated dermal application to rats for 13 weeks was carried out with aromatic oils similar to components used in this product. Resulting effects included increased mortality, increased liver weight, decreased thymus gland weight and lymphoid tissue and blood disorders. Kidney and bone marrow toxicity and cases.

Toxicity to reproduction : Repeated dermal application to rats using similar aromatic oils resulted in maternal toxicity, decreased foetal body weights and survival. In some cases male rats showed malformations and decreased sperm count

Mutagenicity : Modified Ames Test indicates that fuel oils containing significant levels of carcinogenic polycyclic aromatic compounds are mutagenic.

Carcinogenicity : Aromatic oils and extracts are carcinogenic in lifetime mouse skin painting bioassays.

12. ECOLOGICAL INFORMATION

Biodegradability: The majority of the components in this product would be expected to be inherently biodegradable through photo degradation. Physico-chemical removability: Dissolution of the higher molecular weight hydrocarbon components in water will be limited, but losses through sediment adsorption may be significant.

Bioaccumulation: Log Kow values above 3 have been estimated for residual fuels constituents. Persistence in the environment is low based on volatility and biodegradability; hence, the long-term aquatic effects are minimal.

13. DISPOSAL CONSIDERATIONS

Product Dispose of in accordance with local regulations.

Contaminated packaging Store containers and offer for recycling of material when in accordance with the local regulations.

14. TRANSPORT INFORMATION

ADR UN number: 1202; Class: 3; Packaging group: III; F1; Description of the goods: FUEL
RID UN number: 1202; Class: 3; Packaging group: III; F1; Description of the goods: FUEL
ADNR UN number: 1202; Class: 3; Packaging group: III; F1; Description of the goods: FUEL
IMDG UN number: 1202; Class: 3; EmS: F-E, S-E; Packaging group: III; Description of the goods: FUEL
ICAO/IATA UN number : 1202; Class: 3; Packaging group: III; Description of the goods: fuel

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15. REGULATORY INFORMATION

Labelling

Regulatory base: 67/548/EEC
 Symbol(s) Xn: Harmful
 R-phrases R40: Limited evidence of a carcinogenic effect.
 S-phrases S36/37: Wear suitable protective clothing and gloves.
 Hazardous components which must be listed on the label: Fuels



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WARNING!

COMBUSTIBLE LIQUID AND VAPOUR. RESPIRATORY IRRITATION, HEADACHE, DIZZINESS, NAUSEA, LOSS OF CONSCIOUSNESS, AND IN CASES OF EXTREME EXPOSURE, POSSIBLY DEATH. LOW VISCOSITY MATERIAL-IF SWALLOWED, MAY BE ASPIRATED AND CAN CAUSE SERIOUS OR FATAL LUNG DAMAGE.

MAY CAUSE SKIN CANCER ON PROLONGED, REPEATED SKIN CONTACT. ANIMAL SKIN ABSORPTION STUDIES RESULTED IN INCREASED MORTALITY, EFFECTS ON BODY WEIGHT, THE IMMUNE SYSTEM AND THE UNBORN CHILD. PROLONGED, REPEATED SKIN CONTACT MAY CAUSE IRRITATION. DIESEL FUMES MAY CAUSE LUNG CANCER.

SAFETY:

KEEP AWAY FROM HEAT AND FLAME. AVOID PROLONGED OR REPEATED OVEREXPOSURE BY SKIN CONTACT OR INHALATION. USE WITH ADEQUATE VENTILATION. KEEP CONTAINER CLOSED. KEEP OUT OF REACH OF CHILDREN.

FIRST AID:

IF INHALED, REMOVE FROM FURTHER EXPOSURE. IF RESPIRATORY IRRITATION, DIZZINESS, NAUSEA, OR UNCONSCIOUSNESS OCCURS, SEEK IMMEDIATE MEDICAL ASSISTANCE. IF BREATHING HAS STOPPED, ASSIST VENTILATION WITH A MECHANICAL DEVICE OR USE MOUTH-TO-MOUTH RESUSCITATION. IN CASE OF CONTACT, REMOVE CONTAMINATED CLOTHING. DRY WIPE THE EXPOSED SKIN AND CLEANSE WITH WATERLESS HAND CLEANER AND FOLLOW BY WASHING THOROUGHLY WITH SOAP AND WATER. FOR THOSE PROVIDING ASSISTANCE, AVOID FURTHER SKIN CONTACT TO YOURSELF AND OTHERS. WEAR IMPERVIOUS GLOVES. IF SWALLOWED, SEEK IMMEDIATE MEDICAL ATTENTION. DO NOT INDUCE VOMITING. ONLY INDUCE VOMITING AT THE INSTRUCTION OF A PHYSICIAN.

DISCLAIMER:

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

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