



7035077-60 ESSO DIESEL/DIESEL ULS/GAS OIL  
MATERIAL SAFETY DATA BULLETIN

### 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ESSO DIESEL/DIESEL ULS/GAS OIL  
23/05/2003

SUPPLIER: Esso Petroleum Company  
ExxonMobil House  
Ermyrn Way, Leatherhead  
Surrey, KT22 8UX  
UK

Environmental/Health Emergency telephone: 01372 222 000 (UK)  
44 1372 222 000 (Ireland)

INTENDED USE: DIESEL FUEL

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: HYDROCARBONS AND ADDITIVES

GLOBALLY REPORTABLE MSDS INGREDIENTS:

Substance Name	Approx. Wt%	EU Classification
FUEL OIL NO. 2.. 32.6 TO 37.9 SSU (CAS 68476-30-2) (EINECS 270-671-4)	100	Xn;R40 Xn;R65 R66 N;R51/53

NOTE: Composition may contain up to 0.5% performance additive.

### 3. HAZARDS IDENTIFICATION

This product is considered hazardous according to EU regulatory guidelines (see Section 15).

Symbol: Xn N Harmful, Dangerous for the environment..

Risk Phrase(s): R40-65-66-51/53.

POTENTIAL HEALTH EFFECTS: Respiratory irritation, dizziness, nausea, loss of consciousness, and in cases of extreme exposure, possibly death. Diesel exhaust may cause lung cancer. Prolonged, repeated skin contact may result in skin irritation or more serious skin disorders. Low viscosity material-if swallowed may enter the lungs and cause lung damage. Note: This product contains polycyclic aromatic hydrocarbons, some of which have been reported to cause skin cancer in test animals and in humans under conditions of poor personal hygiene and prolonged repeated contact.

POTENTIAL ENVIRONMENTAL EFFECTS: Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

For further health effects/toxicological data, see Section 11.

NOTE: This product should not be used for any other purpose without expert advice.

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#### 4. FIRST AID MEASURES

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EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a doctor.

SKIN CONTACT: Remove contaminated clothing. Dry wipe exposed skin and cleanse yourself with waterless handcleaner and follow by washing thoroughly with soap and water. For those providing assistance, avoid further contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. (See Section 16 - Injection Injury)

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.

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

NOTE TO DOCTORS: Material if aspirated into the lungs may cause chemical pneumonitis. PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE: Hydrocarbon solvents/Petroleum Hydrocarbons- Skin contact may aggravate an existing dermatitis.

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#### 5. FIRE-FIGHTING MEASURES

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EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water may be ineffective, but water should be used to keep fire-exposed containers cool. Prevent runoff from fire control or dilution from entering waterways or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, firefighters MUST use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Material is combustible. Liquid can release vapors that readily form flammable mixtures at or above the flash point. Product can accumulate a static charge

which may cause a fire or explosion.  
COMBUSTION PRODUCTS: Fumes, smoke, carbon monoxide, sulfur oxides,  
aldehydes and other decomposition products, in the case of  
incomplete combustion.  
Flash Point C(F): > 55(131) (IP 34 / ASTM D-93).  
Flammable Limits (approx.% vol.in air) - LEL 0.6%, UEL: 7.0%  
NFPA HAZARD ID: Health: 1 , Flammability: 2 , Reactivity: 0

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## 6. ACCIDENTAL RELEASE MEASURES

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NOTIFICATION PROCEDURES: Report spills/releases as required to  
appropriate authorities. In case of accident or road spill,  
contact the Police and Fire Brigade and, if appropriate, the Area  
Water Authority.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED:

LAND SPILL: Eliminate sources of ignition. Shut off source  
taking normal safety precautions. Take measures to minimize the  
effects on ground water. Recover by pumping using  
explosion-proof equipment or contain spilled liquid with sand or  
other suitable absorbent and remove mechanically into containers.  
If necessary, dispose of adsorbed residues as directed in Section  
13.

WATER SPILL: Eliminate sources of ignition and warn other ships  
in the vicinity to stay clear. Notify port and other relevant  
authorities. Confine with booms if skimming equipment is  
available to recover the spill. Otherwise disperse in unconfined  
waters, if permitted by local authorities and environmental  
agencies. If permitted by regulatory authorities the use of  
suitable dispersants should be considered where recommended in  
local oil spill procedures.

ENVIRONMENTAL PRECAUTIONS: Prevent material from entering sewers,  
water sources or low lying areas; advise the relevant authorities  
if it has, or if it contaminates soil/vegetation.

PERSONAL PRECAUTIONS: See Section 8

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## 7. HANDLING AND STORAGE

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SPECIFIC USES: DIESEL FUEL

HANDLING: Keep product away from high energy ignition sources, heat,  
sparks, pilot lights, static electricity, and open flame.  
Harmful in contact with or if absorbed through the skin. Avoid  
inhalation of vapours or mists. Use in well ventilated area away  
from all ignition sources. See Section 8 for additional personal  
protection advice when handling this product. PORTABLE

CONTAINERS approved for storing fuel must be placed on the ground  
and the nozzle must stay in contact with the container when  
filling to prevent build up and discharge of static electricity.

STORAGE: Store in a cool area. Avoid sparking conditions. Ground and  
bond all transfer equipment.

SPECIAL PRECAUTIONS: To prevent and minimize fire or explosion risk  
from static accumulation and discharge, effectively bond and/or  
ground product transfer system. Do not use electronic devices  
(including but not limited to cellular phones, computers,

calculators, pagers, etc.) in or around any fueling operation or storage area unless the devices are certified intrinsically safe by an approved national testing agency and to the safety standards required by national and/or local laws and regulations. Electrical equipment and fittings must comply with local fire prevention regulations for this class of product. Use the correct grounding procedures. Refer to national or local regulations covering safety at petroleum handling and storage areas for this product.

EMPTY CONTAINER WARNING: Empty containers retain residue (liquid and/or vapour) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### OCCUPATIONAL EXPOSURE LIMITS:

ExxonMobil recommends an 8-hour time-weighted average (TWA) exposure of 500 mg/m<sup>3</sup> total vapor (approx. 100 ppm) or 5 mg/m<sup>3</sup> stable aerosols.

VENTILATION: Use in well ventilated area. Local exhaust ventilation may be necessary to minimise excessive vapour or mist release into the working environment. Ventilation equipment must be explosion proof. Use away from all ignition sources.

RESPIRATORY PROTECTION: Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the recommended exposure limit. Self-contained breathing apparatus may be required for use in confined or enclosed spaces.

EYE PROTECTION: If splash with liquid is possible, chemical type goggles should be worn.

SKIN PROTECTION: Impervious gloves MUST be worn. If contact is likely, oil impervious clothing MUST be worn. Good personal hygiene practices should always be followed.

ENVIRONMENTAL CONTROLS: SEE SECTION 7

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Typical physical properties are given below. Consult Product Data Sheet for specific details.

### GENERAL:

PHYSICAL STATE: Liquid

COLOUR: Light Colored

ODOUR: Petroleum Hydrocarbon

ODOUR THRESHOLD-ppm: NE

IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION:

pH: NE  
BOILING POINT C(F): > 180(356)  
FLASH POINT C(F): > 55(131) (IP 34 / ASTM D-93)  
FLAMMABILITY (solids): NE  
AUTO FLAMMABILITY C(F): > 250(482)  
EXPLOSIVE PROPERTIES: NA  
OXIDIZING PROPERTIES: NA  
VAPOUR PRESSURE-mmHg 20 C: < 0.3  
RELATIVE DENSITY, 15/4 C: 0.85  
SOLUBILITY IN WATER: Negligible  
PARTITION COEFFICIENT: > 3.5  
VISCOSITY AT 40 C, cSt: 3.0  
VISCOSITY AT 100 C, cSt: NE  
VAPOUR DENSITY: > 2.0  
EVAPORATION RATE: NE

OTHER INFORMATION:

MELTING POINT C(F): NA  
POUR POINT C(F): < -7(20)  
FREEZING POINT C(F): NE  
DMSO EXTRACT, IP-346 (WT.%): NA  
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

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10. STABILITY AND REACTIVITY  
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STABILITY (THERMAL, LIGHT, ETC.): Stable.  
CONDITIONS TO AVOID: Extreme heat and high energy sources of ignition.  
INCOMPATIBILITY (MATERIALS TO AVOID): Halogens, strong acids, alkalies and oxidisers.  
HAZARDOUS DECOMPOSITION PRODUCTS: Product does not decompose at ambient temperatures.  
HAZARDOUS POLYMERISATION: Will not occur.

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11. TOXICOLOGICAL DATA  
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---ACUTE TOXICOLOGY---

ORAL TOXICITY: Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.  
DERMAL TOXICITY: Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.  
INHALATION TOXICITY: Practically non-toxic (LC50: greater than 5 mg/l). ---Based on testing of similar products and/or the components.  
EYE IRRITATION: Practically non-irritating. (Draize score: greater than 6 but 15 or less). ---Based on testing of similar products and/or the components.  
SKIN IRRITATION: Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Repeated dermal application of middle distillates, heating oils and diesel oils to rabbits for 2-4 weeks at up to 1 mg/kg resulted in strong to severe skin irritation with some weight loss at the higher dose. Toxic effects ranging from weight loss to mortality was observed in rabbits treated repeatedly with very high doses (6 mg/kg) of these oils. Repeated inhalation exposure of middle distillate and diesel vapor and aerosol to rats for 2-4 weeks at up to 6 mg/l resulted in respiratory tract irritation, lung changes/infiltration/accumulation, and some reduction in lung function.

---REPRODUCTIVE TOXICOLOGY (SUMMARY)---

Diesel fuel vapors were tested in an inhalation teratology (developmental toxicity) study in rats and when only minimal maternal toxicity was observed, no fetotoxic or developmental effects were observed. A developmental toxicity study of dermally applied middle distillates did indicate fetotoxicity (reduced litter size, litter weight, increased resorptions) at doses that also caused significant maternal toxicity.

---CHRONIC TOXICOLOGY (SUMMARY)---

Diesel fuel, heating oil and middle distillates have been shown to be carcinogenic in lifetime mouse skin painting bioassays. While in some cases, the tumor incidence is low in the test populations and possibly associated with skin irritation, concurrent evidence from short-term predicative tests (Modified Ames) does indicate some level of mutagenic activity associated with levels of polycyclic aromatic compounds in certain test samples.

---SENSITIZATION (SUMMARY)---

Middle distillate oils were not skin sensitizers when tested in a Modified Buehler Guinea Pig Sensitization Assay.

---OTHER TOXICOLOGY DATA---

Overexposure to diesel exhaust fumes may result in eye irritation, headaches, nausea, and respiratory irritation. Laboratory studies involving lifetime exposure to high levels of diesel exhaust have produced variable results, with some studies indicating a potential for lung cancer. Limited evidence from epidemiological studies suggest an association between long-term occupational exposure to diesel engine emissions and lung cancer. Diesel engine exhaust typically consists of gases and particulates, including carbon dioxide, carbon monoxide, nitrogen compounds, oxides of sulphur, and hydrocarbons. Diesel exhaust composition will vary with fuel, engine type, load cycle, engine maintenance, tuning and exhaust gas treatment. Use of adequate ventilation and/or respiratory protection in the presence of diesel exhaust is recommended to minimize exposures. This product contains ethylbenzene. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as possibly carcinogenic to humans (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans.

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## 12. ECOLOGICAL INFORMATION

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### ENVIRONMENTAL FATE AND EFFECTS:

In the absence of specific environmental data for this product, this assessment is based on information for representative substances.

**ECOTOXICITY:** This product is expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**MOBILITY:** Dissolution of the higher molecular weight hydrocarbon components in water will be limited, but losses through sediment adsorption may be significant.

**PERSISTENCE AND DEGRADABILITY:** The majority of the components in this product are expected to be inherently biodegradable. The constituents of diesel fuels/heating oil which are volatilized will photodegrade in the atmosphere. The less volatile, more water-soluble components which are aromatic hydrocarbons will also undergo aqueous photodegradation.

**BIOACCUMULATIVE POTENTIAL:** Not established.

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## 13. DISPOSAL CONSIDERATIONS

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**WASTE DISPOSAL:** Product is suitable for burning for fuel value in compliance with applicable laws and regulations.

**EUROPEAN WASTE CODE:** 13 07 01 (fuel oil and diesel) Waste generated from the intended use of this product is assigned the above waste disposal code. However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user. This waste is considered as a hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of the Directive applies.

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## 14. TRANSPORT INFORMATION

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### USA DOT:

SHIPPING NAME:	Diesel Fuel
HAZARD CLASS & DIV:	COMBUSTIBLE LIQUID
ID NUMBER:	NA1993
ERG NUMBER:	128
PACKING GROUP:	PG III
STCC:	NE
DANGEROUS WHEN WET:	No
POISON:	No
LABEL(s):	NA
PLACARD(s):	Combustible
PRODUCT RQ:	NA

MARPOL III STATUS: NA

RID/ADR:

HAZARD CLASS: 3  
PACKING GROUP: III  
LABEL: 3  
DANGER NUMBER: 30  
UN NUMBER: 1202  
SHIPPING NAME: Gas Oil  
REMARKS: NA

IMO:

HAZARD CLASS & DIV: 3  
UN NUMBER: 1202  
PACKING GROUP: PG III  
SHIPPING NAME: Gas Oil  
LABEL(s): Flammable Liquid  
MARPOL III STATUS: NA

ICAO/IATA:

HAZARD CLASS & DIV: 3  
ID/UN Number: 1202  
PACKING GROUP: PG III  
SHIPPING NAME: Gas Oil  
SUBSIDIARY RISK: NA  
LABEL(s): Flammable Liquid

STATIC ACCUMULATOR (50 picosiemens or less): YES

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15. REGULATORY INFORMATION  
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EU Labelling: Product is dangerous as defined by the European Union  
Dangerous Substances/Preparations Directives.

Symbol: Xn N Harmful, Dangerous for the environment..

Risk Phrase(s): R40-65-66-51/53.

Limited evidence of a carcinogenic effect. Harmful: may cause lung damage if swallowed. Repeated exposure may cause skin dryness or cracking. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase(s): S24-2-36/37-62-61.

Avoid contact with skin. Keep out of the reach of children. Wear suitable protective clothing and gloves. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains: Gas oil - unspecified.

Substance Identification Number: 1202

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
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\*\*\* NO REPORTABLE INGREDIENTS \*\*\*

--- REGULATORY LISTS SEARCHED ---

1=IARC 1      6=NO ALLERGI    11=DE TERAT B    16=DE CARC B    21=CH CARC  
2=IARC 2A     7=SE ALLERGY    12=DE TERAT C    17=AT TERAT A  
3=IARC 2B     8=SE CARC       13=DE TERAT D    18=AT TERAT B  
4=NTP CARC    9=DK CARC       14=DE CARC A1    19=AT TERAT C  
5=NTP SUS     10=DE TERAT A   15=DE CARC A2    20=AT TERAT D

CARC=CARCINOGEN;      SUS=SUSPECTED CARCINOGEN;      TERAT=TERATOGENIC

AT = Austria                      DE = Germany                      NO = Norway  
CH = Switzerland                  DK = Denmark                      SE = Sweden

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16. OTHER INFORMATION  
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LIBRARY OF RISK PHRASES LISTED IN SECTION 2 OF THIS DOCUMENT:

R40                      Limited evidence of a carcinogenic effect.  
R51/53                    Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R65                      Harmful: may cause lung damage if swallowed.  
R66                      Repeated exposure may cause skin dryness or cracking.

NOTE: EXXONMOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. Information provided on this MSDS reflects intended use. This product should not be used for other applications. In any case, the following advice should be considered:

INJECTION INJURY WARNING: If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

COSHH Regulations: Product reviewed and considered to be potentially hazardous to health. The Regulations must be followed and measures to control exposure may be necessary.

Any sections of this Material Safety Data Sheet which are printed in bold text highlights recent significant changes which have been made to the advice or information given.

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For Internal Use Only: MHC: 1\* 1\* 1\* 1\* 1\*, MPPEC: C, TRN:  
7035077-60, ELIS: 035077  
EHS Approval Date: 23MAY2003  
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