

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product Name:	Diesel Fuel
Synonyms:	Auto Diesel Oil (ADO) Ultra Low Sulphur Diesel (ULSD) Distillates (petroleum), hydrotreated middle
Safety Data Sheet Number:	814603
Intended Use:	Transportation Fuel
Manufacturer/Supplier:	ConocoPhillips Whitegate Refinery Ltd. Whitegate, Midleton, Co. Cork, Ireland
Emergency Health and Safety Number:	+353 (0)21 462 2 200
MSDS Information:	Internet: http://w3.conocophillips.com/NetMSDS/ Email: MSDS@conocophillips.com

2. Hazards Identification

This material is dangerous according to regulatory guidelines.

Classification: Xn; R65, R66, Xn; R20, N; R51/53

Physical Hazards: Combustible Liquid

Health Hazards: Repeated exposure may cause skin dryness or cracking. May be fatal if swallowed and enters airways. Harmful if inhaled.

Environmental Hazards: Toxic to aquatic life with long lasting effects.

3. Composition / Information on Ingredients

Component	CASRN	EINECS	Concentration*	Symbols/Risk Phrases**
Hydrotreated Middle Distillate	64742-46-7	265-148-2	100	Carc.Cat.2;R45

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

** As currently entered in Annex I of the Dangerous Substance Directive (67/548/EEC)

4. First Aid Measures

Eye Contact: If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

Skin Contact: Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention.

Inhalation (Breathing): First aid is not normally required. If breathing difficulties develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. Seek immediate medical attention.

Ingestion (Swallowing): Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

Notes to Physician: High-pressure hydrocarbon injection injuries may produce substantial necrosis of underlying tissue despite an innocuous appearing external wound. These injuries often require extensive emergency surgical debridement and all injuries should be evaluated by a specialist in order to assess the extent of injury. Early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

5. Fire-Fighting Measures

Unusual Fire & Explosion Hazards: Combustible. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). May create vapor/air explosion hazard if heated. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire.

Extinguishing Media: Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F / 100°C. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions: For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Avoid spreading burning liquid with water used for cooling purposes. Cool equipment exposed to fire with water, if it can be done safely.

Hazardous Combustion Products: Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

6. Accidental Release Measures

Personal Precautions: Combustible. The use of explosion-proof electrical equipment is recommended. Keep all sources of ignition away from spill/release. Stay upwind and away from spill/release. Notify persons and shipping down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

Environmental Precautions: Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water notify appropriate authorities and advise shipping of any hazard.

Methods for Containment and Clean-Up: Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g. skimming, booms or absorbents).

7. Handling and Storage

Precautions for safe handling: Wash thoroughly after handling. Keep away from ignition sources such as heat/sparks/open flame – No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Use good personal hygiene practices and wear appropriate personal protective equipment.

Bond and ground all equipment when transferring from one vessel to another. Can accumulate static charge by flow or agitation. Can be ignited by static discharge. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes for specific bonding/grounding requirements). Do not enter confined spaces such as tanks or pits without following proper entry procedures. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

High pressure injection of hydrocarbon fuels, hydraulic oils or greases under the skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection apparatus or from pinhole leaks in tubing of high pressure hydraulic oil equipment.

For use as a motor fuel only. Do not use as a solvent due to its flammable and potentially toxic properties. Siphoning by mouth can result in lung aspiration which can be harmful or fatal.

The use of hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of incomplete combustion products (e.g. carbon monoxide, oxides of sulfur and nitrogen, benzene and other hydrocarbons) and/or dangerously low oxygen levels. Diesel engine exhaust contains hazardous combustion products and has been classified as a probable cancer hazard in humans.

Conditions for safe storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated area away from heat and all sources of ignition. Store only in approved containers. Post area "No Smoking or Open Flame." Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this material, refer to appropriate guidance pertaining to cleaning, repairing, welding, or other contemplated operations. Outdoor or detached storage is preferred. Indoor storage should meet Country or Committee standards and appropriate fire codes.

8. Exposure Controls / Personal Protection

Component	Ireland-HSA	US-ACGIH	Other
Hydrotreated Middle Distillate			TWA: 100 mg/m ³ ConocoPhillips guidelines

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

Eye/Face Protection: The use of eye protection that meets or exceeds EN 166 is recommended to protect against potential eye contact, irritation, or injury. Depending on conditions of use, a face shield may be necessary.

Skin/Hand Protection: The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Suggested protective materials: Nitrile

Respiratory Protection: Where there is potential for airborne exposure above the exposure limit an approved air purifying respirator equipped with Type A, organic gases and vapour filters (as specified by the manufacturer) may be used.

A respiratory protection program that follows recommendations for the selection, use, care and maintenance of respiratory protective devices in EN 529:2005 should be followed whenever workplace conditions warrant a respirator's use. Air purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration (as directed by regulation or the manufacturer's instructions), in oxygen deficient (less than 19.5 percent oxygen) situations, or under conditions that are immediately dangerous to life and health.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

9. Physical and Chemical Properties

Data represent typical values and are not intended to be specifications.

Appearance: Clear red
Physical Form: Liquid

Odour:	Pungent Petroleum
Odour Threshold:	N/D
pH:	N/A
Melting/Freezing Point:	N/D
Pour Point:	-24°C
Boiling Point/Range:	180-390°C
Flash Point:	>61°C (Closed Cup)
Flammability:	Combustible
Evaporation Rate (nBuAc=1):	N/D
Vapour Pressure:	<0.1 kPa @20°C
Vapour Density (air = 1):	>1
Relative Density:	0.82-0.88 @ 15°C
Viscosity:	4.8 mm ² /s @ 20°C; 1.5-5.5 mm ² /s @ 40°C
Solubility:	Negligible
Partition Coefficient (n-octanol/water) (Kow):	N/D
LEL (vol % in air):	0.5
UEL (vol % in air):	5.0
Autoignition Temperature:	250°C
Decomposition Temperature:	N/D

10. Stability and Reactivity

Stability: Stable under normal ambient and anticipated conditions of use.

Conditions to Avoid: Avoid all possible sources of ignition.

Materials to Avoid (Incompatible Materials): Avoid contact with strong oxidizing agents and strong reducing agents.

Hazardous Decomposition Products: Not anticipated under normal conditions of use.

Hazardous Polymerization: Not known to occur.

11. Toxicological Information

Exposure Route	Hazard	Additional Information	LC50/LD50 Data
Inhalation	Harmful if inhaled		>4.65 mg/L
Ingestion (Swallowing)	Unlikely to be harmful	ASPIRATION HAZARD - This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.	>5 g/kg
Skin Absorption	Unlikely to be harmful		>2.0 g/kg

Irritation	Hazard	Additional Information
Skin Contact	Causes mild skin irritation	Prolonged or repeated contact can defat the skin, causing drying and cracking of the skin, and possibly dermatitis (inflammation).
Eye Contact	Causes mild eye irritation.	

Signs and Symptoms: While significant vapor concentrations are not likely, high concentrations can cause minor respiratory irritation, headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Ingestion can cause irritation of the digestive tract, nausea, diarrhea, and vomiting.

Other Comments: None Known

Sensitization	Hazard	Additional Information
Skin	Not expected to be a skin sensitizer	
Respiratory:	Not classified (based on information from similar materials)	

Target Organ Toxicity	Hazard	Additional Information
Single Exposure:	Not expected to cause organ effects from single exposure.	
Repeated Exposure:	Not expected to cause organ effects from repeated exposure.	

C/M/R	Hazard	Additional Information
Carcinogenicity	Not classified (based on information from similar materials)	Petroleum middle distillates have been shown to cause skin tumors in mice following repeated and prolonged skin contact. Follow-up studies have shown that these tumors are produced through a non-genotoxic mechanism associated with frequent cell damage and repair, and that they are not likely to cause tumors in the absence of prolonged skin irritation. Animal studies have also shown that washing the skin with soap and water can reduce the tumor response. Middle distillates with low polynuclear aromatic hydrocarbon content have not been identified as a carcinogen by IARC.
Germ Cell Mutagenicity	Not expected to cause heritable genetic effects.	
Reproductive Toxicity	Not expected to cause reproductive toxicity.	

12. Ecological Information

Ecotoxicity: Experimental studies show that acute aquatic toxicity values are in the range 1-100 mg/l. These values are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon compositions. Should be regarded as toxic to aquatic organisms; may cause long term adverse effects in the aquatic environment.

Mobility: Releases to water will result in films of hydrocarbons floating and spreading on the surface. For the lighter components, volatilization is an important loss process and reduces the hazard to aquatic organisms. In air, the hydrocarbon vapors react readily with hydroxyl radicals with half lives of less than one day. Photooxidation on the water surface is also a significant loss process particularly for polycyclic aromatic compounds. In water, the majority of components will be adsorbed on sediment. Adsorption is the most predominant physical process on release to soil. Adsorbed hydrocarbons will slowly degrade in both water and soil.

Persistence and degradability: The hydrocarbons in this material are regarded as inherently biodegradable since their hydrocarbon components can be degraded by microorganisms.

Bioaccumulation Potential: Log Kow values measured for the hydrocarbon components of this material are between 3.9 and 6 and therefore regarded as having the potential to bioaccumulate. In practice, metabolic processes may reduce bioconcentration.

13. Disposal Considerations

European Waste Code: 13 07 01* fuel oil and diesel

This material, if discarded as produced, would be considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

This code has been assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste generators/producers are responsible for assessing the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code.

Disposal Recommendations: Disposal must be in accordance with Directive 2006/12/EC and other applicable national or regional provisions, and based upon material characteristics at time of disposal. For incineration of waste, follow Directive 2000/76/EC. For landfill of waste, follow Directive 1999/31/EC.

Product is suitable for burning in an enclosed controlled burner for fuel value if >5000 BTU, or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Follow Directive 2000/76/EC.

Empty Containers: Container contents should be completely used and containers emptied prior to discard. Empty drums should be properly sealed and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with applicable regulations.

14. Transportation Information

Unless otherwise noted the transportation information given covers the following regulations:
IMDG (Water), ADR (Road), RID (Rail), ICAO/IATA (Air)

UN-No.:	UN1202
Proper Shipping Name:	Diesel Fuel <i>or</i> Gasoil <i>or</i> Heating Oil, Light
Hazard Class:	3
Packing Group:	III
Emergency Action Code:	3Y

15. Regulatory Information

Material hazards have been classified in accordance with the EU Dangerous Substances/Preparations Directives.

Labeling Information:

Symbol

Xn: Harmful

N: Dangerous for the Environment



Nature of Risk

R66 - Repeated exposure may cause skin dryness or cracking.

R65 - Harmful: may cause lung damage if swallowed.

R20 - Harmful by inhalation.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Advice

S 2 - Keep out of the reach of children.

S36/37 - Wear suitable protective clothing and gloves.

S62 - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Export Rating:

NLR (No License Required)

16. Other Information

References used in compiling safety data sheet information:

EC 1272/2008
EN166:2002 Eye Protection
EN 529:2005 Respiratory Protective devices
BS EN 374-1:2003 Protective gloves against chemicals and micro-organisms
Occupational Exposure Limits, Health and Safety Authority
Federal Water Act on the Classification of Substances Hazardous to Waters
Directive 91/689/EEC on hazardous waste (European Waste Codes)
Directive 2000/76/EC on incineration of waste
Directive 1999/31/EC on landfill of waste

Date of Issue:	01-May-2009
Status:	Final
Revised Sections or Basis for Revision:	Replaces Whitegate MSDS for Gas Oil dated Jun 2003.
MSDS Number:	814603

Guide to Abbreviations:

ACGIH = American Conference of Governmental Industrial Hygienists; ADR = Agreement on Dangerous Goods by Road; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit (15 minutes); EINECS - European Inventory of Existing Commercial Chemical Substances; EPA = [US] Environmental Protection Agency; Germany-TRGS = Technical Rules for Dangerous Substances; IARC = International Agency for Research on Cancer; ICAO/IATA = International Civil Aviation Organization / International Air Transport Association; IMDG = International Maritime Dangerous Goods; Ireland-HSA = Ireland's National Health and Safety Authority; LEL = Lower Explosive Limit; N/A = Not Applicable; N/D = Not Determined; NTP = [US] National Toxicology Program; RID = Regulations Concerning the International Transport of Dangerous Goods by Rail; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value; TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; UK-EH40 = United Kingdom EH40/2005 Workplace Exposure Limits

Disclaimer of Expressed and implied Warranties:

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.