

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product Identifier**

Chemical Identification:	Fuels, diesel
Other names:	Ultra-low Sulphur Diesel (ULSD/Gasoil/GO); Automotive Gasoil; Gasoil A, Diesel
CAS Number:	68334-30-5
EC Number:	269-822-7
Index Number:	649-224-00-6
REACH Registration Number:	01-2119484664-27-XXXX

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

Product Type and main use:	Fuel for on-road diesel-powered engines. Fuel for use in off- road diesel engines, boilers, gas turbines and other combustion equipment.
Uses advised against:	This product is intended for use in closed systems only.

1.3 Details of the Supplier of the Safety Data Sheet

Supplier:	World Fuel Services
Supplier address:	62 Buckingham Gate London SW1E 6AJ UK
Tel:	+44 207 808 5000
Email:	wfsaphysicalsupply@wfscorp.com
Emergency Telephone (24hr):	+44 (0) 333 333 9957

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance according to Regulation (EC) No 1272/2008 (CLP)**

Flam. Liquid 3 – H226
Asp. Tox. 1 – H304
STOT RE 2; H373 (Thymus, liver, bone marrow)
Skin Irrit. 2; H315
Acute Tox. 4; H332
Carc. 2 – H351
Chronic Aq. Tox. 2 – H411

2.2 Label elements according to Regulation (EC) No. 1272/2008 (CLP)

Pictogram(s): GHS02; GHS08; GHS09; GHS07



Signal Word: Danger

Hazard Statement(s):

- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H332: Harmful if inhaled.
- H351: Suspected of causing cancer
- H373: May cause damage to organs (Thymus, liver, bone marrow) through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260: Do not breathe vapours
- P273: Avoid release to the environment
- P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P331: Do NOT induce vomiting.
- P501: Dispose of contents/container to hazardous waste collection point for disposal in accordance with local, regional, national or international regulations

2.3 OTHER HAZARDS

Composition is complex and varies with the source of the crude oil. Residues and their blends with distillates can be used as heavy fuel oils and need to be heated for use. Contact with hot material can cause thermal burns which may result in permanent skin damage.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCE

Specified as a substance, however contains a range of additives including hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons with carbon numbers predominantly in the C9 to C25, <0.1% v/v each. May contain cetane improver (Ethyl Hexyl Nitrate) at <0.2% v/v. May contain catalytically cracked oils in which polycyclic aromatic compounds, mainly 3-ring but some 4- to 6-ring species are present.

SAFETY DATA SHEET – ULSD

Chemical Name	CAS No.	EC Number	Index Number	Classification
Fuels, diesel	68334-30-5	269-822-7	649-224-00-6	Flam. Liq. 3; H226 Asp Tox 1; H304 Skin Irrit. 2; H315 Acute Tox. 4 H332 Carc. 2 H351* STOT RE 2; H373 (Thymus, liver, bone marrow) Aquatic Chronic 2; H411

*H351 - Suspected of causing cancer - The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen.

Please see section 16 for full hazard statements.

Additional Information: Contains Cumene, CAS# 98-82-8 Contains Naphthalene, CAS# 91-20-3. Dyes and markers can be used to indicate tax status and prevent fraud.

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

General notes

Aspiration into the lungs may occur directly or following ingestion. This may cause chemical pneumonitis which may be fatal. If ingested may lead to irritation of the mouth, irritation of the throat, irritation of the digestive tract, and vomiting. Splashes into the eye may cause irritation.

Inhalation:

Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion:

Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact:

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye contact:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light headedness, headache, nausea and loss of coordination.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically. In cases of ingestion, consider gastric lavage. Gastric lavage must only be undertaken after cuffed endotracheal intubation in view of the risk of aspiration. Administration of carbon for medicinal use (carbo medicinalis) may reduce absorption from the digestive tract. In cases of chemical pneumonitis, antibiotic and corticosteroid therapy should be considered, but only under expert guidance and with special care facilities. High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable: Use water spray, carbon dioxide, foam or dry chemical.

Not suitable: Do not use direct water jets on the burning product as they could cause a steam explosion and spread of the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2 Special exposure hazards:

Hazardous thermal decomposition products:

It emits smokes and dangerous gases included monoxide and carbon dioxide

5.3 Advice for fire-fighters:

Wear full protective clothing and self-contained breathing apparatus.

Keep adjacent containers cool by spraying with water. If possible remove containers from the danger zone. If the fire cannot be extinguished the only course of action is to evacuate immediately.

Additional Advice:

In a fire or if heated, a pressure increase will occur and the container may burst. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

SECTION 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. Remove contaminated clothing. Evacuate the area of all non-essential personnel. Avoid contact with skin, eyes and clothing. Ventilate contaminated area thoroughly.

6.1 Personal Precautions:

Remove all possible sources of ignition in the surrounding area. Evacuate all personnel. Do not breathe fumes, vapour. Do not operate electrical equipment. Avoid contact with skin, eyes, clothing. Ventilate contaminated area thoroughly. Wear chemical resistant knee length safety boots and PVC jacket and trousers. Wear safety glasses or full face shield if splashes are likely to occur.

6.2 Environmental Precautions:

Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and firefighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.]

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.

6.3 Methods and material for containment and cleaning up

Methods -Small Spillages:

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. Do not disperse using water.

Methods -Large Spillages:

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. Do not disperse using water.

6.4 References to other sections

Section 8 (exposure controls and personal protective equipment) and Section 13 (disposal).

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Exposures in Normal Use:

Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Prevent spillages. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Maintenance and Fuelling Activities - Avoid inhalation of vapours and contact with skin.

Handling:

Avoid naked flames. The vapour is heavier than air, spreads along the ground and distant ignition is possible. When using do not eat, drink or smoke. Never siphon by mouth. Take precautionary measures against static discharges. Ensure all equipment is properly earthed. If using pressurised equipment, take extra care to avoid injection under the skin. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Avoid prolonged or repeated contact with skin. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Prevent spillages. Cloth, paper and other materials that are used to absorb spills present a fire hazard. Avoid their accumulation by disposing of them safely and immediately. In addition to any specific recommendations given for controls of risks to health, safety and the environment, an assessment of risks must be made to help determine controls appropriate to local circumstances.

SAFETY DATA SHEET – ULSD

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

This product must never be stored in buildings occupied by people. Drums and small containers should be stored in well ventilated areas, flameproof cabinets or stores. Keep container tightly closed in a dry, well ventilated place away from direct sunlight and other sources of heat or ignition. Keep in a bunded area with a sealed (low permeability) floor, to provide containment against spillage. Stack drums to a height not exceeding 3 metres without the use of racking. Locate tanks away from heat and other sources of ignition. Seek specialist advice for the design, construction and operation of bulk storage facilities.

Product Transfer: Electrostatic charges may be generated during pumping. Ensure electrical continuity by bonding all equipment. Avoid splash filling. Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Contamination resulting from product transfer may give rise to light hydrocarbon vapour in the headspace of tanks that have previously contained gasoline. This vapour may explode if there is a source of ignition. Partly filled containers present a greater hazard than those that are full, therefore handling, transfer and sampling activities need special care.

Tank Cleaning Cleaning, inspection and maintenance of storage tanks is a specialist operation that requires the implementation of strict procedures and precautions. These include issuing of work permits, gas freeing of tanks, using a manned harness, lifelines, and wearing air supplied breathing apparatus. Prior to entry and whilst cleaning is underway, the atmosphere within the tank must be monitored using an oxygen meter and explosimeter. Additional precautions are required where the tank may previously have contained leaded gasoline.

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.

7.3 SPECIFIC END USES

The product is intended for use as a fuel for on-road diesel-powered engines, fuel for use in off- road diesel engines, boilers, gas turbines and other combustion equipment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Material	Source	Type	ppm	mg/m ³	Notation
Fuels, diesel	ACGIH	TWA (Inhalable fraction and vapour.)		100 mg/m ³	as total hydrocarbons

Biological Exposure Index (BEI): No biological limit allocated.

SAFETY DATA SHEET – ULSD

Derived No Effect Levels (DNEL):

Component	Exposure Route	Exposure Type (long/short)	Application Area	Value
Fuels, diesel	DNEL	Short term inhalation (15 mins)	4300 mg/m ³	Industrial

PNEC related information: Substance is a hydrocarbon with a complex, unknown or variable composition. Conventional methods of deriving PNECs are not appropriate and it is not possible to identify a single representative PNEC for such substances.

8.2 EXPOSURE CONTROLS

8.2.1 Appropriate engineering controls

Provide adequate ventilation to ensure that occupational exposure limits are not exceeded. Local extraction may be required. Eye wash and quick-drench shower facilities should be available in the work area. Contaminated clothing and shoes should be thoroughly washed before reuse.

8.2.2 Individual protection measures, such as personal protective equipment

Eye protection: Goggles or safety glasses with side shields giving complete protection to eyes. (EN 166). Depending on conditions of use, close-fitting eye protection and a face shield may be necessary.

Skin protection: Long sleeve protective clothing, plastic apron and rubber boots.
Hand protection: Chemical-resistant gloves. (EN 374). Suitable glove material: nitrile, neoprene or PVC (breakthrough time > 240 minutes). Contact glove supplier to confirm suitable glove material, thickness and breakthrough times

Respiratory protection: Where airborne levels below the exposure limits cannot be maintained, wear an air-purifying respirator (EN 140) with a Type A/P2 filter or better suitable for organic gases and vapours with a boiling point above 65°C. (EN 14387).

Thermal hazards Wear suitable temperature resistant gloves and protective clothing if the product is heated.

8.2.3 Environmental exposure controls: Minimise release to the environment. Inform environmental manager of all incidents involving this product. Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an Occupational Exposure Limit and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Information on suitable methods is available on request.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES - TYPICAL
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9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Colour: Colourless to yellowish
 Physical State: Liquid.
 Odour: Characteristic. May contain a reodorant.
 pH: Not applicable
 Initial Boiling Point and

Boiling Range:	170 - 390 °C / 338 - 734 °F
Pour point:	≤6 °C / 43 °F
Flash point:	> 55 °C / 131 °F
Upper / lower Flammability or Explosion limits:	1 - 6 %(V)
Auto-ignition temperature:	> 220 °C / 428 °F
Vapour pressure:	1 hPa at 20 °C / 68 °F
Specific gravity:	Data not available
Density:	0.82 – 0.89 g/cm ³ at 15 °C / 59 °F
Bulk density:	Not applicable.
Water solubility:	Data not available
Solubility in other solvents:	Data not available
n-octanol/water partition coefficient (log Pow):	3 - 6
Dynamic viscosity:	Data not available
Kinematic viscosity:	1.5 – 6 mm ² /s at 40°C / 104°F
Vapour density (air=1):	Data not available
Evaporation rate (nBuAc=1):	Data not available
Decomposition Temperature:	Data not available

9.2 OTHER INFORMATION

None

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY:	Reacts with oxidising agents.
10.2 CHEMICAL STABILITY:	The product is stable under normal conditions
10.3 POSSIBILITY OF HAZARDOUS REACTIONS:	No hazardous reactions expected during normal conditions.
10.4 CONDITIONS TO AVOID:	Keep away from sources of ignition, hot surfaces, direct sunlight. Prevent accumulation of vapours. Contact with strong oxidizing agents e.g. chlorates and ammonium nitrate.
10.5 INCOMPATIBLE MATERIALS:	Oxidising agents e.g. chlorates and ammonium nitrate which may be used in agriculture. Reducing agents.
10.6 HAZARDOUS DECOMPOSITION	Combustion may liberate toxic fumes: Carbon monoxide, carbon dioxide, various hydrocarbons, nitrogen oxides, sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Basis for Assessment:	Fuels are typically made from blending several refinery streams. Toxicological studies have been carried out on a variety of hydrocarbon blends and streams but not those containing additives. Information given is based on knowledge of the components and the toxicology of similar products.
Acute Oral Toxicity:	Low toxicity: LD50 > 5000 mg/kg , Rat.
Acute Dermal Toxicity:	Low toxicity: LD50 >2000 mg/kg , Rabbit
Acute Inhalation Toxicity:	Low toxicity: LC50 >5 mg/l / 4 h, Rat
Skin Corrosion/Irritation:	Causes skin irritation
Serious Eye Damage/Irritation:	Slightly irritating.

Respiratory Irritation: Expected to be slightly irritating.
Respiratory or Skin Sensitisation: Not a skin sensitiser.
Germ Cell Mutagenicity: *In vitro* mutagenicity studies show that mutagenic activity is related to 46 ring polycyclic aromatic content.
Carcinogenicity: Suspected of causing cancer. Petroleum middle distillates have been shown to cause skin tumours in mice following repeated and prolonged skin contact.
Reproductive Toxicity: Not a developmental toxicant.
Aspiration hazard: May be fatal if swallowed and enters airways. Based on physicochemical properties of the material.

Human Effects:

Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis and may make the skin more susceptible to irritation and penetration by other materials. Under conditions of poor personal hygiene, excessive exposure may lead to irritation, oil acne and folliculitis and development of warty growths which may subsequently become malignant.

Other Information

High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

SECTION 12: ECOLOGICAL INFORMATION

Basis for Assessment: Fuels are typically made from blending several refinery streams. Ecotoxicological data have not been determined specifically for this product. Information given is based on knowledge of the components and the ecotoxicology of similar products.

12.1 TOXICITY

Acute Toxicity:

LL50 21-65 mg/l (diesel fuel)
 EL50 22 mg/l (diesel fuel)
 Microorganisms: EL50 > 1000 mg/l (modelled data)

Chronic Toxicity:

Daphnia: NOEL ≈ 0.083 mg/l (modelled data).
 NOELR ≈ 0.2mg/l (modelled data)

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

12.2 PERSISTENCE AND DEGRADABILITY:

The volatile constituents will oxidize rapidly by photochemical reactions in air. Major constituents are inherently biodegradable.

12.3 BIOACCUMULATION POTENTIAL

Contains constituents with the potential to bioaccumulate.

12.4 MOBILITY:

Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. Large volumes may penetrate soil and could contaminate groundwater. May float or sink in fresh water; floats on sea water. Contains volatile constituents.

12.5 RESULT OF PBT AND VPVB ASSESSMENT:

SAFETY DATA SHEET – ULSD

The substance does not fulfil all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS:

Films formed on water may affect oxygen transfer and damage organisms.

12.7 ADDITIONAL INFORMATION:

None

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

13.1.1 Product / Packaging disposal:

13.1 WASTE TREATMENT METHODS:

Product / packaging disposal Must be disposed of as Hazardous Waste. Waste packaging should be recycled wherever possible. Incineration or landfill should only be considered when recycling is not feasible. Care should be taken when handling emptied containers that have not been cleaned out. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally.

EU Waste Disposal Code (EWC): 13 07 01 fuel oil and diesel. The number given to waste is associated with the appropriate usage. The user must decide if their particular use results in another waste code being assigned. 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

Waste Treatment – relevant information

Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

SECTION 14: TRANSPORT INFORMATION

ADR

14.1	UN Number	1202
14.2	UN Proper shipping name	DIESEL FUEL
14.3	Transport hazard class(es)	3
14.4	Packing group	III

SAFETY DATA SHEET – ULSD

14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

ADN

14.1	UN Number	1202
14.2	UN Proper shipping name	DIESEL FUEL
14.3	Transport hazard class(es)	3
14.4	Packing group	III
14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

RID

14.1	UN Number	1202
14.2	UN Proper shipping name	DIESEL FUEL
14.3	Transport hazard class(es)	3
14.4	Packing group	III
14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

IATA/ICAO

14.1	UN Number	1202
14.2	UN Proper shipping name	DIESEL FUEL
14.3	Transport hazard class(es)	3
14.4	Packing group	III
14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

IMDG

14.1	UN Number	1202
14.2	UN Proper shipping name	DIESEL FUEL
14.3	Transport hazard class(es)	3
14.4	Packing group	III
14.5	Environmental hazards	Marine pollutant.
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	The product is not intended to be transported in bulk.

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

This Safety Data Sheet was prepared in accordance with EC Regulation (EC) No. 1907/2006 as amended. The product has been classified in accordance with Regulation (EC) No. 1272/2008 (CLP).

15.2 CHEMICAL SAFETY ASSESSMENT

REACH Information: A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: OTHER INFORMATION

List of relevant Hazard Phrases

H-statements

- H226 Flammable liquid and vapour.
- H30 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H332 Harmful if inhaled.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects

SDS Distribution

This document contains important information to ensure the 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.

Abbreviations:

CAS:	Chemical Abstracts Service;
EINECS:	European Inventory of Existing Commercial Chemical Substances
EC50:	Effective Concentration 50%
EL50:	Effective Loading rate 50%
LC50:	Lethal Concentration 50%
LD50:	Lethal Dose 50%
LL50:	Lethal Loading rate 50%
LOEL:	Lowest Observed Effect Level
NOEL:	No Observed Effect Level
PBT:	Persistent, Bioaccumulative and Toxic.
RMM:	Risk Management Measures
UVCB:	Substance of Unknown or Variable composition, Complex reaction products or Biological materials
vPvB:	Very Persistent and Very Bioaccumulative
WAF:	Water Accommodated Fraction

History

- V04 Issued: 12/4/2016: Edits made Sections 1-16 to update the format
- V03 Issued: 29/06/2015: Replaces all previous versions. This SDS is the latest issued version, and further versions shall be published whenever relevant applicable changes are available.
- V02 Issued: 28/06/2015:
- V01 Issued: 10/01/2014: First Release.

The advice given in this safety data sheet reflects the current knowledge of the hazards and risks associated with the handling of the product. If the product is mixed with other materials the users shall take these into account in identifying any additional hazards and risks might arise.