TEDCASTLES OIL PRODUCTS LTD
SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY / UNDERTAKING	
1.1 Product Name:	**DERV/AUTO DIESEL/ULTRA LOW SULPHUR DIESEL (ULSD)**
1.2 Intended Use:	Fuel for use in stationary diesel engines in industrial markets, for off-road use and fuel for boilers and gas turbines. ULSD is a gas oil for use in on-road automotive vehicles.
1.3 Name of Distributor:	Tedcastles Oil Products Ltd Promenade Road Dublin Port Dublin 3 Phone: 00353-1-8198000 Fax: 00353-1-8786635 safety@top.ie
1.4 Emergency Contact Details:	Day: 00353-1-8198000 (Office hours 09:00 – 17:00)
2. HAZARD IDENTIFICATION	
2.1 Classification	**CLP Classification (EC No 1272/2008)** H226 – Flammable Liquids – Category 3 H304 – Aspiration Hazard – Category 1 H315 – Skin Corrosion/Irritation Hazard – Category 2 H332 – Acute Toxicity Inhalation – Category 4 H350 – Carcinogenicity – Category 1B H373 - Specific target organ toxicity (repeated exposure) – Category 2 H411 - Hazardous to the aquatic environment, chronic toxicity – Category 2
	Supersedes DSD Classification (67/548/EEC and 1999/45/EC): R10, Xn; R20, Xi;R38, Carc Cat1;R45 , Xn;R48/21 ,Xn;R65, N;R51/53
2.2 Label Elements	
Signal Word	Danger
Hazard Statements	H226 - Flammable liquid and vapour. H351 - Suspected of causing cancer when inhaled H332 - Harmful if inhaled. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H373 - May cause damage to organs through prolonged or repeated exposure. H411 - Toxic to aquatic life with long lasting effects.

	P201 - Obtain special instructions before use P210 - Keep away from heat/sparks/open flames, hot surfaces – no smoking P260 - Do not breathe dust/fumes/mist/vapour/spray P301 + P310 - IF SWALLOWED. Immediately call a POISON CENTER, Doctor/Physician P331 - Do NOT induce vomiting P501 - Dispose of contents to approved disposal facility
2.3 Other hazards	Does not meet the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) substances.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Name	Conc.[1]	CAS No.	EINECS No.	REACH No.	CLP[2] Classification	DSD[3] Classification
Diesel Oil C9-20	90 – 100	68334-30-5	269-822-7	01-2119484664-27	H351	Carc Cat 3;R40
Fatty acids, tallow, Me esters	0 – 10	61788-61-2	262-989-7		—	—
Fatty acids, vegetable oil, Me esters	0 – 10	68990-52-3	262-989-7		—	—
Naphthalene	<1	91-20-3	202-049-5		H351, H302 H410	Carc Cat 3;R40, Xn; R22, N; R50-53

[1] All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are a percent by volume.
[2] Regulation EC1272/2001
[3] Superceded Directives 67/548/EEC and 1999/45/EC

Total Sulfur: < 0.1 wt%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eyes: *Contact with eyes may cause irritation with short-term redness and stinging.*	**First Aid-Eyes:** If redness and/or irritation develops from exposure flush eyes with clean water. If symptoms persist, seek medical attention.
Skin: *Unlikely to cause irritation on single contact. Prolonged and repeated exposure may cause dermatitis and there is a possible risk of irreversible skin disorders unless good handling precautions and good personal hygiene are observed.*	**First Aid-Skin:** Remove contaminated clothing, and flush affected area(s) immediately with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops, seek medical attention. Wash contaminated clothing before re-use. 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. (See note to physician)
Inhalation (Breathing): *Inhalation of fumes or vapours may cause irritation to eyes and mucous membranes, and drowsiness leading to loss of consciousness.*	**First Aid-Inhalation:** If respiratory symptoms or other symptoms of exposure develop, move victim away from the source of exposure and into fresh air in a position comfortable for breathing. If symptoms persist seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, only qualified personnel should administer oxygen. Seek immediate medical attention.

Ingestion (Swallowing): *Ingestion of product may cause irritation with diarrhoea. Aspiration of liquid into the lungs directly or as a result of vomiting following ingestion of the liquid can cause severe lung damage and death.* *Important Symptoms*	**First Aid-Ingestion:** 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. Observe closely for adequacy of breathing and seek medical attention. .
4.2 Most important symptoms and effects	
Acute	Minor respiratory irritation at high vapour concentrations
Delayed	Dry skin and possible irritation with repeated or prolonged exposure.
4.3 Indication of immediate medical attention and special treatment needed	
Note to Physician: When using high-pressure equipment, injection of product under the skin can occur. In this case, the casualty should be sent immediately to hospital. Do not wait for the symptoms to develop. 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	
5.1 Extinguishing Media:	Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous extinguishment, unless used under favourable conditions by experienced fire fighters.
5.2 Fire and Explosion Hazards:	Unusual fire & explosion hazards: Flammable. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Vapours may travel considerable distances to a sources of ignition where they can ignite, flash back, or explode. May create vapour/air explosion hazard indoors, in confined spaces, outdoors or in sewers. This product will float and can be reignited on surface water. Vapours 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.
5.3 Special Protective Equipment for Fire Fighters:	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 vapours 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.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions:	Flammable. Spillages of liquid product will create a fire hazed and may form an explosive atmosphere. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion proof equipment is recommended. Stay upwind and away from spill/release. Avoid direct contact with material. For large spills, notify persons down wind of the spill/release, isolate immediate hazard area and keep in authorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Section 2 and 7 for additional information on hazards.
6.2 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 foam on spills to minimize vapours. 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.
6.3 Methods for Cleaning Up:	Notify relevant authorities in accordance with all appropriate regulations. Immediate clean up 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), In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations. Recommended measures are based on the most likely spill scenarios for this material however local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling:	Keep away from ignition sources such as heat/sparks/open flame – No smoking. Take precautionary measures against static discharge. Non-sparking tools should be used. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection. Do not breathe vapours or mists. Use only outdoors or in well-ventilated area. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment. Flammable. May vaporize easily at ambient temperatures. The vapour is heavier than air and may create an explosive mixture of vapour and air. Beware of accumulation in confined spaces and low-lying area. Open container slowly to relieve any pressure. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. 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 For use as 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 sulphur 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.

	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 greases guns, fuel injection apparatus or from pinhole leaks in tubing of high-pressure hydraulic oil equipment.
7.2 Conditions for safe storage:	Keep containers tightly closed and properly labelled. Use and store this material in cool dry well-ventilated areas away from heat, direct sunlight, hot metal surfaces, 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 maybe 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 fir codes.
7.3 Specific End Use(s)	Refer to supplemental exposure scenarios if attached.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control Parameters

Component	**US-ACGIH**	**H.S.A.**
DIESEL OIL.C9-C20	TWA: 100mg/m3 Sk	None
Fatty acids, tallow, Me esters	None	None
Fatty acids, vegetable- oil, Me esters	None	None
Naphthalene	STEL: 15ppm TWA: 10ppm Skin	None

No Biological Limit Values

Relevant DNEC and PNEC: Pending

Abbreviations:
STEL = Short Term Exposure Limit (15 minutes); **TWA** = Time Weighted Average (8 hours); **None** = No occupational Limit; **Sk**= Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body;

8.2 Exposure Controls	
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, close fitting eye protection and a face shield may be necessary.
Skin 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. Depending on exposure and use conditions, additional protection may be necessary to prevent skin contact including use of items such as chemical resistant boots, apron, arm covers, hoods, coveralls, or encapsulated suits. 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 manufacturers instructions), in oxygen deficient (less than 19.5 percent oxygen) situations, or under conditions that are immediately dangerous to life and health.
Other Protective Equipment	Eyewash and quick drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse.
Environmental Exposure Controls:	Refer to Sections 6, 7, 12 and 13

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

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

Appearance:	Clear straw coloured
Physical Form	Liquid
Odour:	Diesel fuel
Odour Threshold:	Not Detected
pH:	Not Applicable
Melting/Freezing Point	Not Detected
Initial Boiling Point/Range (ºC):	160-375 ^{O}C
Flash Point (Closed Cup), ºC	> 55
Evaporation Rate (nBuAc=1)	Not Detected
Flammability Limits, in Air, % by volume:	Upper Explosive Limit: 6.0
	Lower Explosive Limit: 0.5
Vapour Pressure:	<0.3 KPA @20 ^{O}C
Relative Vapour Density (air=1)	>1
Relative Density (water=1)	0.82-0.845@15 ^{O}C
Solubility	Solubility In Water: Negligible @20 ^{O}C
Partition Coefficient: n-octanol/water:	Not Detected
Auto-Ignition Temperature, ºC:	250-270 ^{O}C
Decomposition Temperature	Not Detected
Viscosity	4.8 $mm^2/_S$ @ 20 ^{O}C; 2-4.$mm^2/_S$ @40 ^{o}C

Explosive Properties	Not Applicable
Oxidizing properties:	Not Applicable

9.2 Other Information

Pour Point	-24 ^{o}C

10. STABILITY AND REACTIVITY

10.1 Reactivity	Not chemically reactive
10.2 Stability:	Stable under normal ambient conditions of use.
10.3 Possibility of hazardous reactions	Hazardous reactions not anticipated
10.4 Conditions to Avoid:	Avoid high temperatures and all sources of ignition. Prevent vapour accumulation.
10.5 Materials to Avoid:	Avoid contact with strong oxidizing agents and strong reducing agents.
10.6 Hazardous Decomposition Products:	Not anticipated under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects of Substances/Mixture

Acute Toxicity	Hazard	Additional Information	LC50/LD50 Data
Inhalation	Harmful if inhaled		>4.65 mg/l (mist)
Skin Absorption	Unlikely to be harmful		>4.1 g/kg
Ingestion (Swallowing)	Unlikely to be harmful		>5 g/kg

Aspiration Hazard	May be fatal if swallowed and enters airways
Skin: Corrosion/Irritation	Causes skin irritation. Repeated exposure may cause skin dryness or cracking
Serious Eye damage/irritation	Causes mild eye irritation
Signs and symptoms	While significant vapour 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, diarrhoea and vomiting.
Skin sensitization	No information available. Not expected to be a skin sensitizer
Respiratory sensitization	No information available.
Specific Target Organ Toxicity (Single Exposure)	Not expected to cause organ effects from single exposure
Specific Target Organ Toxicity (Repeated Exposure)	May cause damage to organs through prolonged or repeated exposure. Dermal application of a distillate fuel component at doses >125 mg/kg, 5 d/wk, for 13 weeks resulted in decreased liver, thymus, and spleen weights and altered bone marrow function. Microscopic alterations included liver hypertrophy and necrosis, decreased haematopoiesis and lymphocyte depletion.
Carcinogenicity	May cause cancer. Petroleum middle distillates have been shown to cause skin tumours in mice following repeated and prolonged skin contact. Follow up studies have shown that these tumours are produced through a non-genotoxic mechanism associated with frequent cell damage and repair, and that they are not likely to cause

	tumours in the absence of prolonged skin irritation. 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
11.2 Information on Hazardous Components	
Naphthalene	***Carcinogenicity:*** Naphthalene has been evaluated in two-year inhalation studies in both rats and mice. The US National Toxicology Program (NTP) concluded that there is clear evidence of carcinogenicity in male and female rats based on increased incidences of respiratory epithelial adenomas and olfactory epithelial neuroblastomas of the nose. NTP found some evidence of carcinogenicity in female mice (alveolar adenomas) and no evidence of carcinogenicity in male mice. Naphthalene has been identified as a carcinogen by IARC and NTP.

12. ECOLOGICAL INFORMATION

12.1 Toxicity:	Experimental studies of gas oils show that acute aquatic toxicity values are typically in the range 2-20 mg/l. These values are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon compositions. They should be regarded as toxic to aquatic organisms, with the potential to cause long-term adverse effects in the aquatic environment. Classification: H411; Chronic Cat 2.
12.2 Persistence and degradability	Gas oils are complex combinations of individual hydrocarbon species. Based on the known or expected properties of individual constituents, category members are not predicted to be readily biodegradable. Some hydrocarbon constituents of gas oils are predicted to meet the criteria for persistence; on the other hand, some components can be easily degraded by microorganisms under aerobic conditions. **Persistence per IOPC Fund definition:** Non- Persistent
12.3 Bioaccumulative potential	Gas oil components have measured or calculated Log Kow values in the range of 3.9 to 6, which indicates a high potential to bioaccumulate. Lower molecular weight compounds are readily metabolized and the actual bioaccumulation potential of higher molecular weight compounds is limited by the low water solubility and large molecular size.
12.4 Mobility in soil and environmental fate	Releases to water will result in a hydrocarbon film 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 vapours 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.
12.5 Results of PBT and vPvB Assessment	Not a PBT or vPvB substance
12.6 Other Adverse Effects	None anticipated.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

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 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. TRANSPORT INFORMATION

14.1 UN Number:	UN 1202
14.2 Proper Shipping Name:	GAS OIL/DIESEL FUEL/HEATING OIL, LIGHT
14.3 Classification for Transport:	Class 3
14.4 Packaging Group:	III
14.5 Environmental Hazards	Marine Pollutant
14.6 Special Precautions for User	If transported in bulk by marine vessel in international waters, product is being carried under the scope of MARPOL Annex I

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Note Applicable

15. REGULATORY INFORMATION

EC Directives:

EC1907/2006	Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
EC1272/2008	Classification, labelling and packaging of substances and mixtures
91/689/EEC	Hazardous Waste (European Waste Codes)
2000/76/EC	Incineration of Waste
1999/31/EC	Landfill of Waste
Statutory Information:	Safety Health and Welfare at Work Act, 2005 Safety Health and Welfare at Work (Chemical Agents) Regulations, 2001

Standards

EN166: 2002	Eye Protection
EN529: 2005	Respiratory Protective Devices
BS EN 374-1:2003	Protective gloves against chemicals and micro-organisms
Export Rating	NLR (No Licence Required)
Chemical Safety Assessment	A chemical safety assessment has been carried out for the substance/mixture

16. OTHER INFORMATION	
Date of Issue:	March 2011
Status:	Live
Previous Issue Date:	April 2005
Revised Sections or Basis for Revision	Changes to take account of Safety Data Sheets changed to comply with Classification, Labelling & Packaging Regulations and Regulation (EC) No 1907/2006 (REACH)
Language:	English
List of Relevant Hazard Statements:	H226 – Flammable liquid and vapour H302 – Harmful if swallowed H304 – May be fatal if swallowed and enters airways H315 – Causes skin irritation. H332 – Harmful if inhaled H351 – Suspected of causing cancer when inhaled H373: May cause damage to organs through prolonged or repeated exposure H410 – Very toxic to aquatic life with long lasting effects. H411 – Toxic to aquatic life with long lasting effects. R10 – Flammable R20 - Harmful by inhalation R22 - Harmful if swallowed R38 - Irritating to skin R40 - Limited evidence of carcinogenic effect R48/21 - Harmful: danger of serious damage to health by prolonged exposure in contact with skin R65 - Harmful: may cause lung damage if swallowed R66 - Repeated exposure may cause skin dryness or cracking R50/53: Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Guide to Abbreviations:

ACGIH = American Conference of Governmental Industrial Hygienists; ADR = Agreement on Dangerous Goods by Road; BMGN = Biological Monitoring Guidance Value; CAS RN = 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 Organisation/International Air Transport Association; IMDG = International Maritime Dangerous Goods; Ireland-H.S.A. = Irelands Health & Safety Authority, LEL = Lower Explosion Limit; N/A= Not Applicable; N/D = Not Determined; NTP = (US) National Toxicology Program; PBT = Persistent Bioaccumulative and Toxic; RID = Regulations Concerning 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; vPvB = very Persistent, very Bioaccumulative

The data and advice given apply when this product is used for the stated applications. The product is not sold as suitable for any other application. Use of this product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. DO NOT use as a solvent or cleaning agent.

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