Engol™

GUARANTEED PERFORMANCE

Material Safety Data Sheet:

Engol 2-Stroke Oil

1. Product and Company Identification

Product Name :	Engol 2-Stroke Oil
Product Use:	
Supplier:	Engol Group (Pty) Ltd 4 Silicon Road, Pinetown, 4147
Health Emergency Telephone:	10111
Contact Information:	info@engolgroup.com
Engol Website :	http://www.engolgroup.com

2. Hazards Identification

Emergency response data: Red Liquid. Flammable. Category 4.

Physical hazards: Combustible Liquid.

Precautionary Statements:

RESPONSE: In case of fire. Use dry chemical foam, water, fog or carbon dioxide for extinction.

PREVENTION: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves and clothing, eye and face protection.

STORAGE: Store in a well-ventilated place. Keep cool.

DISPOSAL: Dispose of contents/container in accordance with applicable local/regional/international regulations.

See section 11 for further health effects/toxicological data.

3. Composition / information on ingredients:

Components	CAS-No	Weight %
Highly refined mineral oil (C15 – C50)	Mixture	60 - 90
Distillates, hydrotreated light	64742-47-8	16.9

See section 8 for further exposure limits (if applicable)
See section 15 for European label information

4. First Aid Measures

Inhalation:	Remove from further exposure. If respiratory irritation, occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with mechanical device or use mouth-to-mouth resusci tation.
Skin Contact:	Remove contaminated clothing. Dry wipe exposed skin and cleanse with hand cleaner, soap and water. Launder contaminated clothing before reuse.
Eye Contact:	Flush thoroughly with water. If irritation occurs, consult a doctor.
Ingestion:	Seek medical attention. Do not induce vomiting.
Self-protection of the First Aider:	When administering first aid, ensure that the appropriate personal protective equipment is worn, according to the incident, injury and surroundings.

5. Fire-Fighting Measures

Clear fire area of all non-emergency personnel.

Extinguishing Media:	Foam, water fog, dry chemical powder and carbon dioxide.
Special firefighting procedure:	Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, municipal sewers, or drinking water supply.
Special protective equipment: for Firefighters	Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.
Unusual fire and explosive: Hazard	Flammable. Vapour accumulation could flash or explode if in contact with an open flame or ignition source.
Products of decomposition:	Fumes, smoke and carbon monoxide.
Flash Point:	> 80°C (ASTM D92)
NFPA Hazard ID:	Health: 0 ; Flammability: 1 ; Reactivity: 0
Advice for firefighters:	Proper protective equipment including chemical resistant gloves are to be worn; chemical Resistant suit is indicated if excessive contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant standards.

6. Accident Release Measures

Personal precautions:	See Section 8.
Procedure if material is released: or spilled	Report spills/releases as required to appropriate authorities.

Methods for cleaning up:	LAND SPILL: Shut off spill source taking normal safety precautions. Enforce measures to minimise the effects on ground water. Recover by shoveling up, or contain spilled material with sand or other suit able absorbent and remove mechanically into containers. WATER SPILL: Eliminate all sources of ignition. Warn occupants and/ or other ships in the area of fire and explosion hazard. Consult an expect on the recovery and disposal of material according to local regulations.
Environmental precautions:	Prevent spill from entering municipal sewers, water sources or low lying areas. Advise the Relevant authorities if contaminations have occurred.
Additional advice:	Local authorities should be advised if significant spillages cannot be contained.

7. Handling & Storage

Storage Information:	Store away from source of ignition in a cool, well-ventilated area. Product is known to be a static accumulator, therefore all storage containers should be grounded and bonded. Store away from strong oxidizing agents or combustible material.
Handling:	Avoid prolonged or repeated contact with skin. Avoid inhaling vapours and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
Storage and handling procedure:	To minimise the risk of fire or explosion from discharge, static and vapour accumulation, effectively bond and ground product storage and transfer systems.
Container warnings:	Container is not designed to contain pressure. DO NOT use pressure to empty container or it might rupture with explosive force. Empty containers contain residue and can be dangerous. Do not pressurize, cut, weld, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or any other source of ignition.
Conditions for safe storage: including any incompatibilities	DO NOT USE OR STORE near heat, sparks, flames or hot surfaces. USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

8. Exposure Control / Personal Protection

Occupational Exposure Limits (OELs)

Components	Agency	TWA	STEL	Ceiling	Notion
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	---	---	---
Distillates, hydrotreated light	ACGIH	5 mg/m3	10 mg/m3	---	---

Personal Protection Equipment:

Engineering controls:	Use in a well-ventilated area. Explosion-proof ventilation equipment with local exhaust is desirable.
Respiratory protection:	Approved respiratory equipment must be used when mist concentrations exceed the recommended exposure limits. For confined spaces, self-contained breathing apparatus may be required.
Eye protection:	Industrial eye protection practices should be employed.
Skin and body protection:	Impervious gloves and clothing must be worn. Good personal hygiene practices should always be followed.

9. Physical and Chemical Properties

Appearance:	Liquid
Colour:	Red
Odour:	Petroleum Odour
Solubility:	Soluble in hydrocarbons. Insoluble in water.
Flash point:	70°C
Vapour pressure:	> 0.01 mmHg (Typical) @ 37.8°C (100°F)
Density:	0.8727 g/cm3 @ 20°C (ASTM D4025)
Viscosity, kinematic:	7.521 mm2/s @ 100°C (ASTM D445)

10. Stability & Reactivity

Stability:	This material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Reactivity:	May react with strong acids or strong oxidising agents, such as chlorates, nitrates, peroxides, etc.
Hazardous decomposition: products	Fumes, smoke and carbon monoxide.

11. Toxicological Information

Aspiration hazard:	Not expected to be an aspiration hazard.
Skin corrosion / irritation:	No known significant effects or critical hazards.
Serious eye damage:	No known significant effects or critical hazards.
Skin sensitization:	No known significant effects or critical hazards.
Respiratory sensitization:	No known significant effects or critical hazards.
Specific target organ toxicity: (Single exposure) - STOT-SE	No known significant effects or critical hazards.
Specific target organ toxicity: (Repeated exposure) - STOT-RE	No known significant effects or critical hazards.
Carcinogenic:	No known significant effects or critical hazards.
Germ cell mutagenicity:	No known significant effects or critical hazards.
Reproductive toxicity:	No known significant effects or critical hazards.

12. Ecological Information

Biodegradability:	This material is not expected to be readily biodegradable. The biode gradability of this material is based on an evaluation of data for the components of similar material.
Bioaccumulation:	This product is not expected to bioaccumulate.
Mobility:	Base oil component - low solubility and floats and is expected to migrate from water to land. Expected to partition to sediment and waste water solids.
Other adverse effects:	Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

13. Disposal Considerations

Waste disposal:	Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by incineration. Such burning may be limited pursuant to the Rescue Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. The use of these methods are subject to user compliance with applicable laws, regulations and considerations of the product characteristics at the time of disposal.
Contaminated Packaging:	Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not pressurize, cut, weld, braze, solder, etc. or expose such containers to heat, flames, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Do not attempt the reuse of clean containers, since residue is difficult to remove. Empty drums should be completely drained, bunged and return to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.
Local Legislation:	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Flash Point:	70°C

14. Transportation Information

This product is a static accumulator (50 picosiemens or less).

DOT Shipping Description:	UN1268, Petroleum Products, N.O.S. Combustible Liquid III.
IMO/IMDG Shipping Description:	Not regulated as dangerous goods for transportation under the IMDG code.
ICAO/IATA Shipping Description:	Not regulated as dangerous goods under the ICAO TI/IATA DGR code.

15. Regulatory Information

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

EPCRA 311/312 Categories:	1. Immediate (Acute) Health Effects:	No
	2. Delayed (Chronic) Health Effects:	No
	3. Fire Hazard:	Yes
	4. Sudden release of pressure hazard:	No
	5. Reactivity Hazard:	No

Regulatory List Searched:

01-1 = IARC Group 1	03 = EPCRA 313
01-2A = IARC Group 2A	04 = CA Proposition 65
01-2B = IARC Group 2B	05 = MA RTK
02 = NTP Carcinogenic	06 = NJ RTK
	07 = PA RTK

16. Other Information

NFPA RATINGS:	Health: 0	Flammability: 2,	Reactivity: 0
MSDS Version Number:	1.0		
MSDS Effective Date:	01.05.2017		

INJECTION INJURY WARNING: If product is injected into or under the skin, or into and part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a doctor as a surgical emergency.

SAFETY: Under normal conditions of intended use, this product does not pose a health risk. Excessive exposure may result in skin, eye and respiratory irritation. Always observe good hygiene practices. Keep away from heat and flame. Keep container closed and out of the reach of children.

FIRST AID: Wash skin with soap and water. Flush eyes with copious amounts of water for several minutes. If overcome by fumes or vapours, remove person(s) to fresh air. If swallowed, do not induce vomiting. Seek medical assistance if symptoms persist. Before using this product, read and understand the MSDS.

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