

# ENGEN TWO STROKE SUPER



## MATERIAL SAFETY DATA SHEET

Revision Date : 22.06.2006

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ENGEN TWO STROKE SUPER  
Product use : Two stroke automotive engine oil  
Supplier : Engen Petroleum Limited (Tel: 021-403 4911, a/h: 021-403 4099)  
Health Emergency Telephone : 021-658 5111 (Red Cross Poison Service)  
Transport Emergency Telephone : 011-975 1278/83 (Hazchemwise)  
Customer Service Center : 0860 036 436 (Sales and Technical Information)  
MSDS Internet website : [www.engen.co.za/content/products/default2.htm](http://www.engen.co.za/content/products/default2.htm)

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No.	Weight%	Symbol Codes	R-Phrase Numbers
Solvent-Refined Heavy Paraffinic Distillate	64741-88-4	70.00 - 80.00	None	Not Applicable
Medium Aliphatic Petroleum Solvent	64742-88-7	5.00 - 10.00	Xn	R10, R65
Solvent deasphalted residual oil	64741-95-3	5.00 - 10.00	None	Not Applicable
Additives		1.00 - 5.00	None	Not Applicable

See Section 15 for European Label Information.

See Section 8 for Exposure Limits (if applicable).

### 3. HAZARDS IDENTIFICATION

Emergency response data : Green Liquid. Material is combustible. DOT ERG No. - Not applicable.

#### Potential health effects

Note : Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin and respiratory irritation.

See Section 11 for further health effects/toxicological data.

### 4. FIRST AID MEASURES

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 with a mouthpiece.

Skin contact : Wash contact areas with soap and water.

Eye contact : Flush thoroughly with water. If irritation occurs call a doctor.

Ingestion : Not expected to be a problem. However, if discomfort occurs seek medical attention. Do not induce vomiting or give anything by mouth to an unconscious person.

### 5. FIRE-FIGHTING MEASURES

Extinguishing media : Carbon dioxide, foam, dry chemical and water fog.

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Special fire fighting procedure	:	Water spray should only be used to keep fire-exposed containers cool, flush spills away from exposures, disperse vapours and protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, municipal sewers, or drinking water supply.
Special protective equipment for firefighters	:	For fires in enclosed areas, fire fighters must use Self-Contained Breathing Apparatus.
Unusual fire and explosive hazards	:	Material is combustible.
Products of decomposition	:	Fumes, smoke and carbon monoxide.
Flash Point	:	110 °C (ASTM D-92)
Upper Explosion Limit	:	7.0 %(V)
Lower Explosion Limit	:	0.6 %(V)
NFPA Hazard Id	:	Health: 0; Flammability: 2; Reactivity: 0

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### **6. ACCIDENTAL RELEASE MEASURES**

Procedure if material is released or spilled	:	Report spills/releases as required to appropriate authorities.
Methods for cleaning up	:	Absorb on fire-retardant treated sawdust, diatomaceous earth, etc. Shovel up with spark-resistant utensils for later disposal at an approved facility, in accordance with current laws and regulations.
Personal precautions	:	See Section 8.
Environmental precautions	:	Prevent spills from entering municipal sewers or drains and contact with soil.

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### **7. HANDLING AND STORAGE**

Safe handling advice	:	No special precautions are necessary beyond normal good hygiene practices.
Storage information	:	Store in a cool area.
Storage and handling procedures	:	Prevent small spills and leakages to avoid slip hazard.

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### **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

#### **Occupational Exposure Limits (OELs)**

<b>Components</b>	<b>CAS-No.</b>	<b>Source</b>	<b>TWA</b>	<b>Value</b>	<b>Notations</b>
Base oils		ACGIH TLV	LTEL	5 mg/m <sup>3</sup>	Oil mists

LTEL: Long Term Exposure Limits - Time Weight Average (TWA) over 8 hours.

STEL: Short Term Exposure Limits - Time Weight Average (TWA) over 15 Minutes

Note: Limits Shown for guidance only. Follow applicable regulations.

#### **Personal Protection Equipment (PPE)**

Engineering controls	:	Use in well ventilated area. Explosive-proof ventilation equipment with local exhaust is desirable.
Respiratory protection	:	No special requirements under ordinary conditions of use and with adequate ventilation.
Eye protection	:	If eye contact is likely, normal industrial eye protection practices should be employed.

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Skin and body protection : No special equipment required. Good personal hygiene practices should always be followed.

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### **9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : Liquid.  
Colour : Green  
Odour : Mild  
Solubility : Negligible  
Boiling point/range : > 180 °C  
Flash Point : 110 °C (ASTM D-92)  
Vapour pressure : < 10 hPa  
Density : 0.8700 g/cm<sup>3</sup> @ 20 °C (ASTM D-4052)  
Pour point : -9 °C  
Viscosity, kinematic : 68.00 mm<sup>2</sup>/s @ 40 °C (ASTM D-445)  
9.6 mm<sup>2</sup>/s @ 100 °C (ASTM D-445)

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### **10. STABILITY AND REACTIVITY**

Stability : Stable.  
Conditions to avoid : Heat, sparks, flame and build up of static electricity.  
Materials to avoid : Strong oxidizers.  
Hazardous decomposition products : Fumes, smoke and carbon monoxide.

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### **11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : (Rats): Practically non-toxic (LD50: Greater than 2000 mg/kg). Based on testing of similar products and/or components.  
Acute inhalation toxicity : (Rats): Practically non-toxic (LC50: greater than 5mg/l). Based on testing of similar products and/or the components.  
Acute dermal toxicity : (Rabbits): Practically non-toxic (LD50: greater than 2000 mg/kg). Based on testing of similar products and/or the components.  
Skin irritation : (Rabbits): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). Based on testing of similar products and/or the components.  
Eye irritation : (Rabbits): Practically non-irritating. (Draize score: greater than 6 but 15 or less). Based on testing of similar products and/or the components.  
Repeated dose toxicity : Severely solvent refined and severely hydrotreated mineral base oils have been tested at an Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects. Chronic mouse skin painting studies of severely solvent refined mineral base oils showed no evidence of carcinogenic effects.

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### **12. ECOLOGICAL INFORMATION**

#### **Elimination information (persistence and degradability)**

Biodegradability : Not established.  
Physico-chemical removability : Not established.  
Bioaccumulation : Not established.

#### **Ecotoxicity effects**

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## **Further information on ecology**

Remarks : Not established.

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## **13. DISPOSAL CONSIDERATIONS**

Waste disposal : Dispose of waste at an appropriate disposal facility in accordance with current applicable laws and regulations.

Contaminated packaging : 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 promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Other regulations : The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Flash Point : 110 °C (ASTM D-92)

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## **14. TRANSPORT INFORMATION**

Note : This product is not regulated by the following: U.S. DOT (CFR), ADR, IATA and IMDG.

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## **15. REGULATORY INFORMATION**

US OSHA Hazard Communication Standard : When used for its intended purposes, this product is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

Governmental Inventory Status : All components comply with TSCA, EINECS/ELINCS, AICS, METI, DSL, KECI, ENCS, PICCS and IECSC.

EU Labelling : Product is not dangerous as defined by the European Union Dangerous Substances/Preparations Directives. EU labelling not required.

## **SARA**

U.S. Superfund Amendments and Reauthorization Act SARA Title III : This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

## **The following product ingredients are cited on the lists below**

Chemical name	CAS-No.	Concentration [%]	List Citations
Solvent-Refined Heavy Paraffinic Distillate	64741-88-4	70.00 - 80.00	Not listed
Medium Aliphatic Petroleum Solvent	64742-88-7	5.00 - 10.00	18, 19, 20, 21, 23, 25
Solvent deasphalted residual oil	64741-95-3	5.00 - 10.00	Not listed
Additives		1.00 - 5.00	Not listed

## **Regulatory List Searched**

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	17 = CA P65	22 = MI 293
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5a2	18 = CA RTK	23 = MN RTK
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5e	19 = FL RTK	24 = NJ RTK
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	20 = IL RTK	25 = PA RTK
5 = NTP SUS	10 = OSHA Z	15 = TSCA 12b	21 = LA RTK	26 = RI RTK

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Code Key: CARC = Carcinogen; SUS = Suspected Carcinogen

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## **16. OTHER INFORMATION**

Note: Engen products do not 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 any 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 doctor 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.

Precautionary Label Text:

CONTAINS PETROLEUM DISTILLATE

**SAFETY:** Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation. Always observe good hygiene measures.

**FIRST AID:** Wash skin with soap and water. Flush eyes with water. If overcome by fumes or vapour, remove to fresh air. If ingested do not induce vomiting. If symptoms persist seek medical attention. Read and understand the MSDS before using this product.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. Refer to product Material Safety Data Sheet for further safety and health information.

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## **Disclaimer**

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

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