

MATERIAL SAFETY DATA SHEET

C8-C18 Coconut Methyl Ester, Item number 30-003



Date: 02/04/2012

1. COMPANY DETAILS

Company name: UCY ENERGY
UCY business services & trading GmbH
Am Villepohl 4
D-53347 Alfter
Germany

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2. CHEMICAL IDENTIFICATION

General product name: C8-C18 Coconut Methyl Ester
Item number: 30-003
EINECS number: 262-988-1
CAS number: 61788-59-8

3. HAZARDS IDENTIFICATION

Potential health effect:

Eye contact
accidental exposure to the eyes may produce a mild, but transient irritation

Skin contact
very mild to no irritation expected

Inhalation
no harmful effects expected with normal use

Ingestion
may cause gastrointestinal irritation

Physical / chemical hazards: None identified

Environmental hazards: None identified

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4. FIRST AID MEASURES

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| Eyes: | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. |
| Skin: | Wash skin with soap and water upon contact. Remove contaminated clothes. If irritation develops, get medical attention. Wash clothing before reuse. |
| Inhalation: | Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. |
| Ingestion: | If swallowed, do not induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person. |

5. FIRE FIGHTING MEASURES

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| Flash point (Method used): | 216 °F (102 °C) PMCC |
| Auto-ignition temperature: | Not available |
| Extinguishing media: | Small fires: use CO2 or dry chemical Large fires: use foam |
| Special fire fighting procedure: | Cool containers with flooding quantities of water until well after fire is out. Vapors may travel to a source of ignition and flash back. |
| Exposure hazards: | Does not decompose up to 350 °F (177 °C). Carbon monoxide with incomplete combustion. |

6. ACCIDENTAL RELEASE MEASURES SPILL CLEAN-UP PROCEDURES

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| Personal precaution: | An appropriate NIOSH/MSHA approved respirator should be used if a mist, vapor or dust is generated. Wear protective clothing and equipment. |
| Environmental precaution: | Dike flow of spilled material using soil or sandbags to minimize contamination of drains, surface and ground waters. |

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Procedures for spill / leak clean-up: Ventilate area and eliminate all ignition sources. Contain spill, absorb or cover with dry earth, sand or other non-combustible material and transfer to containers for disposal. Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good hygiene and safety procedures. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. When transferring materials ground and bond containers, use spark proof tools and explosion proof equipment. Since empty containers contain product residue and can be dangerous, follow all hazard warnings and precautions, even after container is emptied. Keep away from sources of ignition.

Storage: Can be stored in most common storage vessels including carbon steel, aluminium, fiberglass and stainless steel. Keep away from heat, sparks or open flames. Keep away from possible contact with incompatible substances. Store in cool dry place in accordance with NFPA 30.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Respiratory protection: If mists are generated, wear a NIOSH approved organic vapor / mist respirator.

Protective clothing: Safety glasses, goggles, or face shield recommended to protect eyes from mists or splashing. Use recommended Nitrile gloves to prevent skin contact.

Exposure limit: Not established

Other protective measures: Employees must practice good personal hygiene, washing exposed areas of skin several times daily.

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9. PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance: | Water white to yellowish |
| Odor: | Musty |
| Boiling Point at 760 mmHG, °C : | > 148.9 |
| Melting Point, °C: | Not available |
| Viscosity: | Not available |
| Relative Density at 25/25 °C, kg L: | 0.86 |
| Solubility in water, 22 °C, % v/v: | Negligible |
| Vapor pressure, 22 °C, mmHG: | < 5 |
| Flash point, °C (Method): | > 102 PMCC |
| Auto ignition temperature, °C: | Not available |

10. STABILITY AND REACTIVITY

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| General: | This product is stable under normal condition. |
| Incompatible materials and condition to avoid: | Reacts with strong base to produce methanol. |
| Hazardous decomposition products: | Does not decompose up to 350 °F (177 °C). Carbon monoxide with incomplete combustion. |
| Hazardous polymerization: | Will not occur. |

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11. TOXICOLOGICAL INFORMATION

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| Acute oral toxicity (LD₅₀): | Would be expected to be greater than 20 g / kg of body weight based upon acute oral toxicity for C8-10, C12-14 and C16-18 methyl esters. |
| Chronic effect on human: | The application of undiluted material to human skin would be expected to produce very mild irritation. A 24 hour human patch test indicated that either undiluted C8-10, C12-14 or C16-18 methyl ester produced very mild irritation. The irritancy was less than the result produced by a 4 % aqueous soap solution. |
| Other toxic effects on human: | The application of undiluted material to the rabbit's eye would be expected to produce only mild transient irritation. |

12. ECOLOGICAL INFORMATION

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| Ecotoxicity: | The 96-hr. LC50 (fish) for bluegrills would be expected to be greater than 423 mg / L. |
| Microbiological Inhibition: | None at 10,000 mg / l. |

13. DISPOSAL CONSIDERATION

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| Waste Disposal: | Disposal is to be performed in compliance with all federal / state / provincial and local regulations. Do not dispose of via sinks, drains or into the immediate environment. |
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14. TRANSPORT INFORMATION

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|---------------------------------------|-----------------------------|
| U.S. DOT: | Not regulated for transport |
| RID / ADR – IMDG – ICAO / IATA | Not classified |

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15. REGULATION INFORMATION

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| Inventory Status: | TSCA, EINECS, DSL, ENCS, Philippines, Australia, China, Korea |
| EU classification: | This product is not classified as dangerous according to Directive 67 / 548 / EEC. |
| Canada: | Hazardous Ingredients – WHMIS (Canadian workplace hazardous materials information system). This product when tested as a whole is not a controlled substance within the meaning of the hazardous products act. |

16. OTHER INFORMATION

This information here is believed to be accurate and pertains only to the product when stored in a sealed condition, as prescribed above. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product. UCY ENERGY, UCY business services & trading GmbH shall in no way be liable for any claims, losses and damages of any third party, or for lost profits, or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, from the use of the product.