

RCT**Rierden Chemical & Trading Company****115 West Church Street****P.O. Box 7072****Libertyville, IL 60048****Tel (847) 816-9310 Fax (847) 816-6364****sales@rierdenchemical.com****Safety Data Sheet****Methyl Oleate****I IDENTIFICATION**

Synonyms methyl ester of oleic acid
 CAS# see list in Part 3
 Material Use manufacture of surfactants, stabilizers, resins, lubricants, plasticizers

EMERGENCY INFORMATION

In the U.S.A. Call CHEMTREC (800) 424-9300
 In Canada Call CANUTEC (collect) (613) 996-6666

II HAZARD IDENTIFICATION

GHS Class aquatic, acute aquatic chronic
 (Category) (1) (2)
 Signal Words WARNING WARNING
 Hazard Statements very toxic to aquatic life
 aquatic life wit long-lasting effects
 (H400) (H411)

**GHS Precautionary Statements for Labelling**

P273, P391 Avoid release to the environment. Collect spillage.

WHMIS Class (Canada) not controlled under WHMIS
 Key: B 2 – Flash Point <38°C, B 3 – Flash Point >38°C & <93°C
 D 1 – Immediately Toxic, D 2 – Chronic Toxicity
 C – Oxidising Substance, E – Corrosive

III COMPOSITION

	CAS NUMBER	%	TLV mg/m ³	LD ₅₀ (mg/kg) ORAL	LD ₅₀ (mg/kg) SKIN	LC ₅₀ mg/m ³ INHALATION
Methyl Oleate	112-62-9	62-78%	not listed	not known	not known	not known
Methyl Linoleate	112-63-0	7-20%	not listed	not known	not known	not known
Methyl Stearate	112-61-8	5-15%	10mg/m ³	not known	not known	not known
Methyl Palmitate	112-39-0	5-10%	not listed	not known	not known	not known
OR						
Methyl Esters, C ₈ – C ₁₈ & C ₁₈ unsat. fatty acids	67762-37-2	100%	not listed	>5000	not known	>5000

IV FIRST AID

SKIN: Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered. Seek medical help promptly if there is persistent itching or redness in the affected area.
 EYES: Wash eyes with plenty of water, holding eyelids open. Seek medical assistance if there is persistent irritation.
 INHALATION: Remove from contaminated area promptly. **CAUTION: Rescuer must not endanger himself!** If victim's breathing stops, administer artificial respiration and seek medical aid promptly.
 INGESTION: Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this nontoxic product. The stomach should only be emptied under medical supervision, after the installation of an airway to protect the lungs.

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V FLAMMABILITY & FIRE-FIGHTING

Flash Point	139°C / 282°F ¹ ; also 160.5°C / 321°F ¹ (closed cup)
Autoignition Temperature	235°C / 455°F ¹
Flammable Limits	not known
Combustion Products	carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments
Firefighting Precautions	foam, dry chemical, water fog or spray to cool, product floats on water – water jet spreads flames; firefighters must wear SCBA
Static Discharge	cannot accumulate a static charge

VI ACCIDENTAL RELEASE MEASURES

Leak Precaution	dyke to control spillage and prevent environmental contamination
Handling Spill	recover free liquid with suitable pumps; absorb residue on an inert sorbent, sweep, shovel & store in closed containers for disposal

VII HANDLING & STORAGE

Store and use away from sources of ignition and oxidising agents. Never cut, drill, weld or grind on or near this container, whether empty or full. Always replace drum, pail or IBC cap prior to moving the container!

Avoid generating or breathing product mist or spray. If mist or spray form, install adequate ventilation to clear workplace air. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath should be available near the workplace.

VIII EXPOSURE CONTROL & PERSONAL PROTECTION

ACGIH TLV	10mg/m ³ (stearates)	ACGIH STEL	not listed
OSHA PEL	not listed	OSHA STEL	not listed
Ventilation	no special mechanical ventilation required		
Hands	no special protective gloves required		
Eyes	safety glasses with side shields – <i>always protect eyes!</i>		
Clothing	no special protective clothing required		

IX PHYSICAL AND CHEMICAL PROPERTIES

NOTE: for Flash Point, Autoignition Temp, & Flammable Limits see Part 5.

Odour & Appearance	clear, yellow, mobile liquid with mild fatty odour
Odour Threshold	not known
Vapour Pressure	2.2x10 ⁻⁴ mmHg / 2.9x10 ⁻³ kPa (20°C/ 68°F) ¹
Evaporation Rate (Butyl Acetate = 1)	not known – <i>not considered volatile</i>
Vapour Density (air = 1)	~10
Boiling Point	~260°C / 500°F ¹
Freezing Point	-19°C / -2°F ¹
Decomposition Temperature	not known – <i>no decomposition below boiling point</i>
Specific Gravity	0.87 (20/20°C)
Water Solubility	0.3 milligrams per litre (20°C / 68°F) ¹ – <i>virtually water insoluble</i>
- in other solvents	acetone, diethyl ether, hydrocarbons
Log P _{o/w} (Octanol/H ₂ O Partition Coefficient)	5.4 to 8.3 – <i>range of reported values for individual fatty acid methyl esters</i> ¹
Viscosity	5 centipoise (25°C / 77°F)
pH	none – <i>does not yield hydrogen ions in solution</i>
Molecular Weight	approx. 300grams per mole

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X REACTIVITY

Dangerously Reactive With	strong oxidising agents
Also Reactive With	none known
Chemical Stability	stable; will not polymerize
Decomposes in Presence of	no decomposition triggers known
Decomposition Products	none apart from Hazardous Combustion Products
Mechanical Impact	not sensitive

XI TOXICITY INFORMATION**i. ACUTE EXPOSURE**

Skin Contact	little to no effect
Skin Absorption	no toxic effects likely by this route
Eye Contact	little to no effect
Inhalation	not known – probably little effect
Ingestion	not known – low toxicity
LD ₅₀ (oral)	>5000mg/kg (rat) – <i>no mortality in this test</i> ¹
LD ₅₀ (skin)	not known – <i>probably no toxicity by this route</i>
LC ₅₀ (inhalation)	>5000mg/m ³ (rat) – <i>no mortality in this test</i> ¹

ii. CHRONIC EXPOSURE

General	little if any effect
Sensitising	not a sensitiser ¹
Carcinogen/Tumorigen	not known to be a tumorigen or a carcinogen in humans or animals ¹
Reproductive Effect	no known effect on humans or animals ¹
Mutagen	not known to be a mutagen or teratogen in humans or animals ¹
Synergistic With	not known

XII ECOLOGICAL INFORMATION

Bioaccumulation	readily metabolised; cannot bioaccumulate
Biodegradation	biodegrades readily and rapidly in the presence of oxygen; 78% in 28 days ¹
Abiotic Degradation	not known
Mobility in soil, water	water soluble; moves readily through soil & the water column
Aquatic Toxicity	
LC ₅₀ (Fish 96 hr)	not known – <i>manufacturer's claim is >100mg/litre (species not named)</i>
LC ₅₀ (Crustacea, 48hr)	0.255mg/litre (Daphnia magna) ¹
EC ₅₀ (Algae, 96hr)	0.324mg/litre (Pseudokirchnerella subcapitata) ¹
LC ₅₀ (Microorganisms)	not known – <i>readily biodegradable; presumably not toxic to bacteria</i>

XIII DISPOSAL CONSIDERATIONS

Waste Disposal	do not flush to sewer; may be incinerated in approved facility with flue gas monitoring & scrubbing, mix with a suitable flammable waste before incineration; may be landfilled if local regulations permit
Containers	Drums should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use. Pails must be vented and thoroughly dried prior to crushing and recycling. IBCs (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5 years). Steel containers must be inspected, pressure tested & recertified every 5 years. Warning: never cut, drill, weld or grind on or near this container, even if empty.

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XIV TRANSPORT INFORMATION**USA 49 CFR & Canada TDG**

Product Identification Number

Shipping Name

Classification

Marine Pollution**ERAP Required****Reportable Quantity (RQ)**

UN – not regulated for transport

not regulated for transport

not regulated for transport

not a marine pollutant

No

none

XV REGULATIONS

Canada DSL

on inventory

U.S.A. TSCA

ACTIVE

Europe EINECS

on inventory

XVI OTHER INFORMATION**Date of Preparation****October 2015****Date of Revision****February 2019 (D. Moreno)**Prepared for Rierden Chemical & Trading Company, by **Peter Bursztyn**

With data from Registry of Toxic Effects of Chemical Substances (RTECS - USA), Hazardous Substance Data Base (HSDB - USA), Cheminfo (CCOHS - Canada), OSHA website, European Chemicals Agency (EChA) dossiers & other sources (below if used), as required/available.

(1) European Chemicals Agency (EChA) dossier on Fatty acids, C8-18 and C18-unsatd., Me esters:

<http://apps.echa.europa.eu/registered/data/dossiers/DISS-9fe7c9dc-dfc3-5663-e044-00144f67d031/DISS-9fe7c9dc-dfc3-5663-e044-00144f67d031 DISS-9fe7c9dc-dfc3-5663-e044-00144f67d031.html>

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