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Material Safety Data Sheet

METHYL PALMITATE

Section 1 - Product Identification

Product Name : Methyl Palmitate

CAS No. : 112-39-0

Synonym : Hexadecanoic acid, methyl ester

Company Identification : Tradeasia International Pte. Limited

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Section 2 – Composition/Information on Ingredients

Substances

Name of substance	Methyl Palmitate
Identifiers	
CAS No	112-39-0
Molecular formula	C17H34O2
Molar Mass	270,45 g/mol

Section 3 – Hazardous Ingredients & Occupational Exposure Limits

Classification of the substances or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

Section 4 – First-Aid Measures

First-aid measures general:	Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Call a physician immediately.
First-aid measures after inhalation:	Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. First-aid measures after skin contact: Wash immediately with lots of water (15 minutes)/shower. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital. Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact:	Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Take victim to an ophthalmologist. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion:	Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not give activated charcoal. Do not give chemical antidote. Immediately consult a doctor/medical service. Call Poison Information

	Centre (www.big.be/antigif.htm). Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital. Rinse mouth. Do not induce vomiting. Call a physician immediately.

Most Important Symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: No data available

Symptoms/injuries after skin contact: No data available

Symptoms/injuries after eye contact: No data available

Symptoms/injuries after ingestion: No data available

Chronic symptoms: No data available

Indication of any immediate medical attention and special treatment needed

Treat symptomatically

Section 5 – Employee Protection

1. Extinguishing media

Suitable extinguishing media: Adapt extinguishing media to the environment. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media: No unsuitable extinguishing media known.

2. Special hazards arising from the substance or mixture

Fire hazard: No data available

Explosion hazard: No data available

Reactivity: No data available

3. Advice for firefighters

Precautionary measures fire: Exposure to fire/heat: consider evacuation.

Firefighting instructions: Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible, collect or contain it.

Protection during firefighting: Heat/fire exposure: compressed air/oxygen apparatus. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Section 6 – Accidental Release Measures

1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment: Gloves. Face-shield. Corrosion-proof suit. Large spills/in enclosed spaces: compressed air apparatus. Large spills/in enclosed spaces: gas-tight suit. Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit. See "Material-Handling" to select protective clothing.

Emergency procedures: Ventilate spillage area. Keep upwind. Mark the danger area. Seal off low-lying areas. Close doors and windows of adjacent premises. No naked flames. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation. In case of reactivity hazard: consider evacuation. Avoid contact with skin and eyes. Do not breathe fume, vapors.

For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

2. Environmental precautions

Avoid release to the environment. Prevent soil and water pollution. Prevent spreading in sewers.

3. Methods and material for containment and cleaning up

For containment: Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. If reacting: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water. Heat exposure: dilute toxic gas/vapour with water spray. Collect spillage.

Methods for cleaning up: Take up liquid spill into absorbent material. Liquid spill: neutralize. Take up liquid spill into a non-combustible material e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Spill must not return in its original container. Damaged/cooled tanks must be emptied. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

Other information: Dispose of materials or solid residues at an authorized site.

4. Reference to other sections

For further information refer to section 13.

Section 7 – Handling and Storage

1. Precautions for safe handling

Precautions for safe handling: Ensure good ventilation of the work station. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep away from naked flames/heat. Observe strict hygiene. Keep the container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Avoid contact with skin and eyes. Do not breathe fume, vapors. Wear personal protective equipment.

Hygiene measures: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store locked up. Store in a well-ventilated place. Keep cool.

Heat-ignition: KEEP SUBSTANCE AWAY FROM: heat sources.

Prohibitions on mixed storage: KEEP SUBSTANCE AWAY FROM: reducing agents. (strong) acids. (strong) bases. metals. organic materials.

Storage area: Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Keep locked up. Provide for a tub to collect spills. Unauthorized persons are not admitted. Keep only in the original container. Meet the legal requirements.

Special rules on packaging: SPECIAL REQUIREMENTS: closing. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packaging in solid containers.

Packaging materials: SUITABLE MATERIAL: synthetic material. polyethylene. glass. stoneware/porcelain. MATERIAL TO AVOID: aluminium, zinc.

Section 8 – Exposure Controls/Personal Protection (later)

Control Parameters

METHYL PALMITATE		
ACGIH	ACGIH TWA (ppm)	None listed
ACGIH	ACGIH STEL (ppm)	None listed
ACGIH	Remarks (ACGIH)	None listed
OSHA	OSHA PEL (celling) (mg/m3)	None listed

OSHA	OSHA PEL (celling) (ppm)	None listed

Exposure controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Materials for protective clothing: GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: neoprene. PVC. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available.

Hand protection: Gloves.

Eye protection: Face shield. Safety glasses.

Skin and body protection: Corrosion-proof clothing.

Respiratory protection: Wear gas mask with filter type B if conc. in air > exposure limit. High vapour/gas concentration: self-contained respirator.

Environmental exposure controls: Avoid release to the environment.

Section 9 – Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Solid

Appearance: Clear

Color: White

Odor: No data available

Odor threshold: No data available

pH: No data available

pH solution: No data available

Melting point: 28 °C / 82.4 °F

Freezing point: No data available

Boiling point: 338 °C / 640.4 °F @ 760 mmHg

Flash point: > 110 °C / > 230 °F

Relative evaporation rate (butyl acetate=1): No data available

Flammability (solid, gas): No data available

Explosion limits: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Vapor pressure: 0,00008 hPa at 25 °C

Relative density:No data available

Relative vapor density at 20 °C: No data available

Specific gravity / density: 0,852 g/mL at 25 °C

Molecular mass: 270.45 g/mol

Solubility: 0,00004 g/l at 25 °C in water

Log Pow: No data available

Log Kow: No data available

Auto-ignition temperature: 230 °C at 1.013 hPa

Decomposition temperature: No data available

Viscosity: No data available

Viscosity, kinematic: 4,4 mm2/s at 40 °C

Viscosity, dynamic: No data available

Other information

VOC content: Not applicable

Other properties: Gas/vapour heavier than air at 20°C. Clear. Substance has basic reaction.

Section 10 – Stability and Reactivity

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

Conditions to avoid

Incompatible products. Excess heat. Avoid dust formation.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO2)

Section 11 – Toxicological Information

Information on toxicological effects

Acute toxicity: Not classified

METHYL PALMITATE

LD50 oral rat	2.000 mg/kg
LD50 dermal rabbit	No data available

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: No eye irritation

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

METHYL PALMITATE

IARC group	3 - Not classifiable

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified

Symptoms/injuries after inhalation: No data available

Symptoms/injuries after skin contact: No data available

Symptoms/injuries after eye contact: No data available

Symptoms/injuries after ingestion: No data available

Chronic symptoms: No data available

Section 12 – Ecological Information

1. Toxicity

Ecology - general: No data available

Ecology - air: No data available

Ecology - water: No data available

METHYL PALMITATE	
LC50 fish 1	No data available

2. Persistence and degradability

METHYL PALMITATE	
Persistence and degradability	Insoluble in water and may persist
Biochemical oxygen demand (BOD	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

3. Bioaccumulative potential

METHYL PALMITATE	
Bioaccumulative potential	Bioaccumulation: not applicable.

4. Mobility in soil

METHYL PALMITATE

METHYL PALMITATE	
Ecology - soil	Is not likely mobile in the environment due its low water solubility

5. Other adverse effects

No additional information available

Section 13 – Disposal Considerations

Waste treatment methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Waste disposal recommendations: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove for physico-chemical/biological treatment. May be discharged to company wastewater treatment plant.

Additional information: LWCA (the Netherlands): KGA category 02. Hazardous waste according to Directive 2008/98/EC.

Section 14 – Transport Information

Department of Transportation (DOT)

No data available

ADR

No data available

Section 15 – Regulatory Information

1. US Federal regulations

No additional information available

2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

No additional information available

3. National regulations

No additional information available

4. US State regulations

No additional information available

Section 16 - Additional Information

Full text of H-phrases:

------ Aquatic Acute 1 Hazardous to the aquatic environment - Acute Hazard Category 1

------ Eye Dam. 1 Serious eye damage/eye irritation Category 1

------ Skin Corr. 1A Skin corrosion/irritation Category 1A

------ H314 Causes severe skin burns and eye damage

------ H318 Causes serious eye damage

------ H400 Very toxic to aquatic life

NFPA health hazard: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard: 0 - Materials that will not burn.

NFPA reactivity: 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product