

Product Data Sheet

PALMSURF TMPTO

Trimethylolpropane Trioleate

Description	PALMSURF TMPTO is a trimethylolpropane trioleate made from high quality oleic acid and trimethylolpropane.	
Specifications (ex-factory)	Appearance	Transparent liquid
	Acid Value (mgKOH/g)	1.00 max
	Saponification Value (mgKOH/g)	175.0-190.0
	Iodine Value (gI ₂ /100g)	75.0-90.0
	Hydroxyl Value (mgKOH/g)	25.0 max
	Moisture (%)	0.10 max
	Colour (Gardner)	3 max
	Viscosity @ 40°C (cSt)	40.0-50.0
	Density @ 20°C	0.914-0.920
Storage	Store in cool and dry place. Keep away from direct heat and sunlight.	
Shelf-Life	24 months from date of manufacturing if remains unopened and stored under recommended condition.	
Packaging	Net 180 kg in mild steel drums	
Safety & Handling	Safety Data Sheet is available upon request.	
Suggested Applications	Vegetable-based synthetic ester with good lubricity, hydrolytic stability and biodegradability. Used as base oil for lubricants, hydraulic oils and gear oils; and in formulating metal working fluids.	

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Safety Data Sheet



IOI OLEOCHEMICAL

IOI Esterchem (M) Sdn Bhd 199201021590 (253094-T)

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Group of Chemicals:	Fatty Esters	SDS No.:	SDS-QC-122
Commercial Name :	PALMSURF TMPTO	Date Issue :	01/12/2020
Common Name/Other Name:	Trimethylolpropane Trioleate	Date Review:	05/10/2021

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF SUPPLIER

Product name:

Trimethylolpropane Trioleate

Trade name:

PALMSURF TMPTO

Recommended uses:

Lubricant, metal working

Supplier name:

IOI Esterchem (M) Sdn Bhd
2411 Lorong Perusahaan Satu,
Prai Industrial Complex.
13600. Prai, Penang, Malaysia

Manufacturer address

3072 Lorong Perusahaan Satu,
Prai Industrial Complex.
13600. Prai, Penang, Malaysia

Emergency contact:

IOI Esterchem (M) Sdn Bhd
+604 3768888

Contact Person:

- 1) Safety and Health Manager / Officer
- 2) Quality Control Manager / Chemist

SECTION 2. HAZARDS IDENTIFICATION

Product is non-hazardous.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

General chemical description:

Trimethylolpropane Trioleate, formula $C_{60}H_{110}O_6$

CAS-number:

57675-44-2

EINECS- number:

260-895-0

SECTION 4. FIRST-AID MEASURES

When inhaled:

Remove to fresh air, place in half-sitting position, take to hospital if necessary.

When in contact with skin:

Remove contaminated clothing. Wash with soap and water.

When in contact with eyes:

Flush with plenty of water at least for 15 minutes. In case of irritation ask for medical assistance.

When ingested:

Flush oral cavity, drink plenty of water, do not induce vomiting. seek medical advice if necessary.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable fire-fighting agents:

Extinguish with carbon dioxide, foam, dry powder.

Extinguishing media which must not be used for safety reasons:

Do not use water jet. Treat as burning vegetable oil.

Specific hazards in the event of fire:

In the event of fire the following can be released: Carbon monoxide, carbon dioxide.

Protection of fire-fighters (use of protective equipment, etc.):

Use self-contained breathing apparatus.



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SECTION 6. ACCIDENT RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Contaminated floors may be slippery.

Environmental precautions:

Do not discharge into the drains/ surface waters/ groundwater. Prevent spread over a wide area (e.g. by containment or oil barriers).

Methods and materials for containment and cleaning up:

Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder).
Dispose of absorbed material in accordance with the regulations.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin and eyes. Wash thoroughly after handling. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

Conditions for safe storage, including any incompatibilities:

Store in a dry, well-ventilated area

SECTION 8. EXPOSURE CONTROLS /PERSONAL PROTECTION

Control parameters:

No data

Appropriate engineering controls:

Ensure adequate ventilation to keep exposure levels to a minimum.

Individual protection measures, such as personal protective equipment (PPE):

Hand protection	: Use impervious gloves.
Eye protection	: Wear chemical goggles; face shield (if splashing is possible).
Body protection	: Wear suitable protective clothing.



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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Odour	Characteristic
Odour threshold	No data available
Melting point / freezing point	< 0°C
Initial boiling point and boiling range	ca. 851°C @ 760 mmHg
Flash point (Pensky-Martens closed cup)	>250°C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or	No data available
Explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Solubility	Insoluble in water
Partition coefficient: n-octanol/water	Not data available
Auto-ignition temperature	Not data available
Decomposition temperature	Not data available
Viscosity	approximately 41 mPa.s @ 40°C
Density	approximately 0.91 @ 20°C
Relative molecular mass	927.51

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

No data available.

Chemical stability:

Stable under normal conditions of use.

Possibility of hazardous reactions:

No data available.



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Conditions to avoid:

Excessive heat. Fire. Strong oxidants.

Incompatible materials:

Strong oxidizing agents.

Hazardous decomposition products:

None with proper storage and handling.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

No data available.

Skin corrosion/irritation:

No data available.

Serious eye damage/irritation:

No data available

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity:

No data available

Reproductive toxicity:

Not data available

STOST-single / repeated exposure:

No data available

Aspiration hazard:

No data available



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SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity:

Acute fish toxicity:	No data available.
Acute bacteria toxicity:	No data available

Persistence and degradability:

Readily biodegradable.

Bio accumulative potential:

No data available

Mobility in soil:

No data available

Other adverse effect:

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal method:

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations. Regulations may vary in different locations. Characterization and Compliance with applicable laws is the responsibility solely of the generator.

SECTION 14. TRANSPORT INFORMATION

UN Number:

None

UN Proper Shipping Name:

None



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Transport Hazard Class:

US Department of Transportation Classification:

This material is not subject to DOT regulations under 49 CFR Parts 171-180.

International Air Transportation Association Classification:

This material is not classified as hazardous under IATA regulations.

International Maritime Organization - IMDG:

This material is not classified as hazardous under IMDG regulations.

Packing Group:

None

Environmental Hazard:

Marine pollutant (Yes/No): No data available

MARPOL Annex II: No data available

SECTION 15. REGULATORY INFORMATION

Classification and labelling according to GHS:

None

Classification and labelling according to EC:

None

SECTION 16. OTHER INFORMATION

Always work safely around open hatches on bulk tanks. The low density makes flotation difficult for immersed person.

Disclaimer

This Safety Data Sheet does not constitute any warranty or guarantee as to the quality, properties, condition or otherwise of the product. It has been prepared from the best knowledge available to us and we shall not be liable for any insufficiency or inaccuracy in such information in any case whatsoever.