



**SAFETY DATA SHEET**  
**TRIMETHYLOLPROPANE CAPRATE/CAPRYLATE**  
**REVISION 3, DATE 05 OCT 22**

## 1. IDENTIFICATION

<b>Product Name</b>	<b>Trimethylolpropane Caprate/Caprylate</b>
<b>Other Names</b>	Octanoic acid, decanoic acid, trimethylolpropane ester; PALMESTER 3970; PANESTER 3292T; Trimethylolpropane fatty acid ester; Trimethylolpropane, caprylate caprate triester
<b>Uses</b>	Chemical intermediate; Lubricant; Metal working fluid.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	Unspecified
<b>Chemical Name</b>	Decanoic acid, ester with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol octanoate
<b>Product Description</b>	Lubricant Base Fluid.

### Contact Details of the Supplier of this Safety Data Sheet

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

### Emergency Contact Details

*For emergencies only; DO NOT contact these companies for general product advice.*

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

## 2. HAZARD IDENTIFICATION

### Poisons Schedule (Aust)

Not Scheduled

Redox Ltd  
Corporate Office Sydney  
Locked Bag 15 Minto NSW 2566 Australia  
2 Swettenham Road Minto NSW 2566 Australia  
All Deliveries: 4 Holmes Road Minto NSW 2566 Australia

Phone +61 2 9733 3000  
Fax +61 2 9733 3111  
E-mail [sydney@redox.com](mailto:sydney@redox.com)  
Web [www.redox.com](http://www.redox.com)  
ABN 92 000 762 345

Australia  
Adelaide  
Brisbane  
Melbourne  
Perth  
Sydney

New Zealand  
Auckland  
Christchurch  
Hawke's Bay  
UK  
London

Malaysia  
Kuala Lumpur  
USA  
Los Angeles  
Oakland  
Mexico  
Saltillo



## Globally Harmonised System

<b>Hazard Classification</b>	NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
<b>Signal Word</b>	None

## National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

<b>Dangerous Goods Classification</b>	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Trimethylolpropane, caprylate caprate triester	Unspecified	11138-60-6	<=100 %

## 4. FIRST AID MEASURES

## Description of necessary measures according to routes of exposure

<b>Swallowed</b>	IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting. Get immediate medical advice/attention.
<b>Eye</b>	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.
<b>Skin</b>	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.
<b>Inhaled</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention.
<b>Advice to Doctor</b>	No special measures required.
<b>Medical Conditions Aggravated by Exposure</b>	No information available.

## 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
<b>Flammability Conditions</b>	May burn but does not ignite readily.
<b>Extinguishing Media</b>	Use sand, Carbon dioxide (CO2), powder or water spray for extinction. Fight larger fires with water spray or alcohol resistant foam. Use fire extinguishing methods suitable to surrounding conditions. Do not use water with full jet.
<b>Fire and Explosion Hazard</b>	Containers may explode when heated.
<b>Hazardous Products of Combustion</b>	Fire may produce irritating and/or toxic gases, including Carbon oxides.

<b>Special Fire Fighting Instructions</b>	Contain runoff from fire control or dilution water - Runoff may cause pollution.
<b>Personal Protective Equipment</b>	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
<b>Flash Point</b>	ca. 245 °C [COC]
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	No Data Available

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid breathing vapours and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Pick up with sand or other non-combustible absorbent material and place into containers for later disposal (see SECTION 13).
<b>Containment</b>	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
<b>Decontamination</b>	No information available.
<b>Environmental Precautionary Measures</b>	Do not allow product to reach sewage system or any watercourse.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised/unprotected personnel away.
<b>Personal Precautionary Measures</b>	Use personal protective equipment as required (see SECTION 8). *Use respiratory protective device against the effects of fumes/dust/aerosol.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Prevent the buildup of mists or vapours in the work atmosphere. Avoid breathing mist/vapours and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Keep away from heat and sources of ignition - No smoking. Take precautions against static electricity discharges. Uses proper grounding procedures.
<b>Storage</b>	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly sealed when not in use. Inspect regularly for deficiencies such as damage or leaks. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Have appropriate fire extinguishers available in and near the storage area.
<b>Container</b>	Store only in the original receptacle. Do not pressurise, cut, heat or weld containers as they may contain hazardous residues.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No specific exposure standards are available for this product.
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available.
<b>Engineering Measures</b>	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. *Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required.

<b>Personal Protection Equipment</b>	<ul style="list-style-type: none"> <li>- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Approved respirator with a replaceable vapour/mist filter (refer to AS/NZS 1715 &amp; 1716).</li> <li>- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with side-shields, chemical goggles or full-face shield, as appropriate.</li> <li>- Hand protection: Handle with gloves. Recommended: Wear gloves of impervious material.</li> <li>- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist. Chemical-resistant apron is recommended where large quantities are handled.</li> </ul>
<b>Special Hazards Precautions</b>	No information available.
<b>Work Hygienic Practices</b>	The usual precautionary measures are to be adhered to when handling chemicals. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take off contaminated clothing and wash it before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>Appearance</b>	Liquid
<b>Odour</b>	Mild
<b>Colour</b>	Light yellow
<b>pH</b>	No Data Available
<b>Vapour Pressure</b>	<ca. 1 hPa (@ 20 °C)
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	>ca. 200 °C (at 1,000 hPa)
<b>Melting Point</b>	No Data Available
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	<ca. 0.0023 mg/L 20°C [QSAR]
<b>Specific Gravity</b>	No Data Available
<b>Flash Point</b>	ca. 245 °C [COC]
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	0.94 g/cm <sup>3</sup> [ASTM D1298-85]
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	No Data Available
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	> 7.67 (log Kow) [QSAR]
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	18 - 21 mm <sup>2</sup> /s (@ 40 °C)
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	Pour point: -45 °C max. [ASTM D97-96a].
<b>Potential for Dust Explosion</b>	Not applicable.

<b>Fast or Intensely Burning Characteristics</b>	No information available.
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No information available.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No information available.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	May burn but does not ignite readily.
<b>Reactions That Release Gases or Vapours</b>	Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	No dangerous reactions known. No decomposition if used according to specifications.
<b>Chemical Stability</b>	Stable under normal conditions of storage and handling.
<b>Conditions to Avoid</b>	Keep away from heat and sources of ignition. Avoid direct sunlight.
<b>Materials to Avoid</b>	Incompatible/reactive with oxidising agents, strong acids.
<b>Hazardous Decomposition Products</b>	Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides.
<b>Hazardous Polymerisation</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	<ul style="list-style-type: none"> <li>- Acute toxicity: Based on available data, the classification criteria are not met. Ingestion of the product may irritate the gastric tract causing nausea and vomiting.</li> <li>- Skin corrosion/irritation: Based on available data, the classification criteria are not met. May be irritating to skin. The symptoms include redness, itching and swelling. COMPONENT: Trimethylolpropane, caprylate caprate triester (CAS No. 11138-60-6): Non-irritant (Rabbit) [OECD 404].</li> <li>- Eye damage/irritation: Based on available data, the classification criteria are not met. May be irritating to eyes. The symptoms may include redness, itching and tearing. COMPONENT: Trimethylolpropane, caprylate caprate triester (CAS No. 11138-60-6): Non-irritant (Rabbit) [OECD 405].</li> <li>- Respiratory/skin sensitisation: Based on available data, the classification criteria are not met. COMPONENT: Trimethylolpropane, caprylate caprate triester (CAS No. 11138-60-6): Did not show a sensitising effect (Guinea pig) [OECD 406].</li> <li>- Germ cell mutagenicity: Based on available data, the classification criteria are not met.</li> <li>- Carcinogenicity: Based on available data, the classification criteria are not met.</li> <li>- Reproductive toxicity: Based on available data, the classification criteria are not met.</li> <li>- STOT (single exposure): Based on available data, the classification criteria are not met.</li> <li>- STOT (repeated exposure): Based on available data, the classification criteria are not met. Prolonged or repeated skin contact may cause defatting, leading to dermatitis.</li> <li>- Aspiration toxicity: Based on available data, the classification criteria are not met.</li> </ul>
<b>Acute</b>	
<b>Ingestion</b>	Acute toxicity (Oral): COMPONENT: Trimethylolpropane, caprylate caprate triester (CAS No. 11138-60-6): - LD50, Rat: >2,000 mg/kg bw. [OECD 401].
<b>Other</b>	Acute toxicity (Dermal): COMPONENT: Trimethylolpropane, caprylate caprate triester (CAS No. 11138-60-6): - LD50, Rabbit: >2,000 mg/kg bw. [OECD 402].

**Chronic****Reproduction**

Reproductive toxicity (Dermal):

COMPONENT: Trimethylolpropane, caprylate caprate triester (CAS No. 11138-60-6):

- NOAEL, Rat (emb/feto/tera): &gt;2,000 mg/kg bw. [OECD &amp; U.S. FDA Guidelines, RA Polyol ester].

**Carcinogen Category**

None

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Aquatic toxicity:

COMPONENT: Trimethylolpropane, caprylate caprate triester (CAS No. 11138-60-6):

- LL50, Fish: &gt;10,000 mg/L (96 h) [OECD 203].

- EL50, Crustacea (Daphnia magna): &gt;100 mg/L (48 h) [OECD 202].

- EL50, Algae (Desmodesmus subspicatus): &gt;100 mg/L (72 h) static [OECD 201].

**Persistence/Degradability**

Easily biodegradable.

COMPONENT: Trimethylolpropane, caprylate caprate triester (CAS No. 11138-60-6):

- 78.9 % degradation after 29 days [OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)].

- Reached 10-day-window

**Mobility**

No information available.

**Environmental Fate**

Generally not hazardous for water.

**Bioaccumulation Potential**

Does not accumulate in organisms.

**Environmental Impact**

No Data Available

**13. DISPOSAL CONSIDERATIONS****General Information**

Disposal must be made according to official regulations. Must be specially treated adhering to official regulations.

**Special Precautions for Land Fill**

No information available.

**14. TRANSPORT INFORMATION****Land Transport (Australia)**

ADG Code

**Proper Shipping Name**

Trimethylolpropane Caprate/Caprylate

**Class**

No Data Available

**Subsidiary Risk(s)**

No Data Available

No Data Available

**UN Number**

No Data Available

**Hazchem**

No Data Available

**Pack Group**

No Data Available

**Special Provision**

No Data Available

**Comments**

NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (Malaysia)**

ADR Code

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Proper Shipping Name	Trimethylolpropane Caprate/Caprylate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

### Land Transport (New Zealand)

NZS5433

Proper Shipping Name	Trimethylolpropane Caprate/Caprylate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

### Land Transport (United States of America)

US DOT

Proper Shipping Name	Trimethylolpropane Caprate/Caprylate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

### Sea Transport

IMDG Code

Proper Shipping Name	Trimethylolpropane Caprate/Caprylate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

**Air Transport**

IATA DGR

Proper Shipping Name	Trimethylolpropane Caprate/Caprylate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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**15. REGULATORY INFORMATION**

General Information	No Data Available
Poisons Schedule (Aust)	Not Scheduled

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	Not Hazardous
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**National/Regional Inventories**

Australia (AIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Listed
China (IECSC)	Listed
Europe (EINECS)	234-392-1
Europe (REACH)	01-2119498305-31-
Japan (ENCS/METI)	2-2491
Korea (KECI)	KE-09451
Malaysia (EHS Register)	Exempt
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed

Switzerland (Giftlist 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Listed
USA (TSCA)	Listed

## 16. OTHER INFORMATION

Related Product Codes	BASEES2010, BASEES2020, BASEES3292, BASEES3970, BASEES3980
Revision	3
Revision Date	05 Oct 2022
Reason for Issue	New SDS
Key/Legend	<p>&lt; Less Than &gt; Greater Than  <b>AICS</b> Australian Inventory of Chemical Substances  <b>atm</b> Atmosphere  <b>CAS</b> Chemical Abstracts Service (Registry Number)  <b>cm<sup>2</sup></b> Square Centimetres  <b>CO<sub>2</sub></b> Carbon Dioxide  <b>COD</b> Chemical Oxygen Demand  <b>deg C (°C)</b> Degrees Celcius  <b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand  <b>deg F (°F)</b> Degrees Farenheit  <b>g</b> Grams  <b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre  <b>g/l</b> Grams per Litre  <b>HSNO</b> Hazardous Substance and New Organism  <b>IDLH</b> Immediately Dangerous to Life and Health  <b>immiscible</b> Liquids are insoluable in each other.  <b>inHg</b> Inch of Mercury  <b>inH<sub>2</sub>O</b> Inch of Water  <b>K</b> Kelvin  <b>kg</b> Kilogram  <b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre  <b>lb</b> Pound  <b>LC<sub>50</sub></b> LC stands for lethal concentration. LC<sub>50</sub> is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.  <b>LD<sub>50</sub></b> LD stands for Lethal Dose. LD<sub>50</sub> is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.  <b>ltr or L</b> Litre  <b>m<sup>3</sup></b> Cubic Metre  <b>mbar</b> Millibar  <b>mg</b> Milligram  <b>mg/24H</b> Milligrams per 24 Hours  <b>mg/kg</b> Milligrams per Kilogram  <b>mg/m<sup>3</sup></b> Milligrams per Cubic Metre  <b>Misc or Miscible</b> Liquids form one homogeneous liquid phase regardless of the amount of either component present.  <b>mm</b> Millimetre  <b>mmH<sub>2</sub>O</b> Millimetres of Water  <b>mPa.s</b> Millipascals per Second  <b>N/A</b> Not Applicable  <b>NIOSH</b> National Institute for Occupational Safety and Health  <b>NOHSC</b> National Occupational Heath and Safety Commission  <b>OECD</b> Organisation for Economic Co-operation and Development  <b>Oz</b> Ounce  <b>PEL</b> Permissible Exposure Limit</p>

**Pa** Pascal  
**ppb** Parts per Billion  
**ppm** Parts per Million  
**ppm/2h** Parts per Million per 2 Hours  
**ppm/6h** Parts per Million per 6 Hours  
**psi** Pounds per Square Inch  
**R** Rankine  
**RCP** Reciprocal Calculation Procedure  
**STEL** Short Term Exposure Limit  
**TLV** Threshold Limit Value  
**tne** Tonne  
**TWA** Time Weighted Average  
**ug/24H** Micrograms per 24 Hours  
**UN** United Nations  
**wt** Weight