

### 1. IDENTIFICATION

<b>Product Name</b>	<b>Castor Oil, Hydrogenated</b>
<b>Other Names</b>	Hydrogenated Castor Oil; Natural Glycerol Ester (Tryglyceride) which is Hydrogenated
<b>Uses</b>	No Data Available
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	Unspecified
<b>Chemical Name</b>	Castor Oil, Hydrogenated
<b>Product Description</b>	No Data Available

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

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty 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.*

Organisation	Location	Telephone
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

#### Globally Harmonised System

**Hazard Classification** NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

**Signal Word** None

### National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & 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)

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Triglyceride	No Data Available	8001-78-3	100.0 %

## 4. FIRST AID MEASURES

### Description of necessary measures according to routes of exposure

<b>Swallowed</b>	Rinse mouth with water. Give water to drink. Do NOT induce vomiting. If symptoms develop, seek medical attention.
<b>Eye</b>	Immediately flush eyes with plenty of water for 15 minutes, holding eyelids open. If irritation occurs, seek medical attention.
<b>Skin</b>	Remove contaminated clothing. Wash with plenty of soap and water. If irritation occurs, seek medical attention.
<b>Inhaled</b>	Remove victim from exposure to fresh air - Avoid becoming a casualty. Seek medical advice if effects persist.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of patient.
<b>Medical Conditions Aggravated by Exposure</b>	No information available on medical conditions aggravated by exposure to this product.

## 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
<b>Flammability Conditions</b>	Non-combustible solid.
<b>Extinguishing Media</b>	In case of fire, appropriate extinguishing media include: water fog, foam, carbon dioxide or dry chemical.
<b>Fire and Explosion Hazard</b>	Dust explosible.
<b>Hazardous Products of Combustion</b>	Toxic Gases such as carbon monoxide may be released.
<b>Special Fire Fighting Instructions</b>	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
<b>Personal Protective Equipment</b>	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves).
<b>Flash Point</b>	>310 °C
<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>	Avoid accidents, clean up immediately. Slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment.
<b>Clean Up Procedures</b>	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and dispose of promptly. If molten product is spilled allow it to solidify.
<b>Containment</b>	Stop leak if safe to do so. Isolate the danger area.
<b>Decontamination</b>	Flush with water.
<b>Environmental Precautionary Measures</b>	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
<b>Evacuation Criteria</b>	Evacuate all unnecessary personnel.
<b>Personal Precautionary Measures</b>	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes. Avoid dust formation. Keep away from sources of ignition.
<b>Storage</b>	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Keep containers in a dry shaded area, away from heat. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
<b>Container</b>	Store in original packaging as approved by manufacturer.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified is 10mg/m <sup>3</sup> (for inspirable dust) and 3mg/m <sup>3</sup> (for respirable dust). Limit values of inert dust: max 6mg/m <sup>3</sup> .
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available on biological limit values for this product.
<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. Adequate ventilation should be provided so that exposure limits are not exceeded.
<b>Personal Protection Equipment</b>	RESPIRATOR: Dust mask (AS1715/1716). EYES: Protective Glasses (AS1336/1337). HANDS: Hand savers (AS2161). CLOTHING: Long-sleeved protective clothing and safety footwear (AS3765/2210).
<b>Work Hygienic Practices</b>	No Data Available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Waxy flakes
<b>Odour</b>	Mild fatty acid odour.
<b>Colour</b>	Off-white

<b>pH</b>	No Data Available
<b>Vapour Pressure</b>	<<0.001 mm Hg (@ 20 °C)
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	>300 °C
<b>Melting Point</b>	82 - 87 °C
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	<0.1% 25°C
<b>Specific Gravity</b>	No Data Available
<b>Flash Point</b>	>310 °C
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	0
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	0.90 water=1.00
<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>	No Data Available
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	Insoluble in most organic solvents at room temperature
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	Solubility: Insoluble in most organic solvents at room temperature
<b>Potential for Dust Explosion</b>	Dust Explodable.
<b>Fast or Intensely Burning Characteristics</b>	No Data Available
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No Data Available
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No Data Available
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	No Data Available
<b>Reactions That Release Gases or Vapours</b>	No Data Available
<b>Release of Invisible Flammable Vapours and Gases</b>	No Data Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Product is stable under normal conditions of use, storage and temperature.
<b>Conditions to Avoid</b>	Temperatures higher than 82 deg C leads to melting.
<b>Materials to Avoid</b>	Keep away from oxidising material.
<b>Hazardous Decomposition Products</b>	Thermal decomposition products can include toxic oxides of carbon.
<b>Hazardous Polymerisation</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	Expected Oral LD50 Rat: >5000mg/Kg (based on data taken from similar product). This product is not listed as a carcinogen by the following agencies: ACGIH, IARC, NTP and OSHA.
	It may cause eye irritation in case it contacts the eyes. Other data like neurological effects, reproductive toxicity, sensitization are not available.
<b>Eyelrritant</b>	May cause irritation in case of contact with the eyes.
<b>Carcinogen Category</b>	No Data Available

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Acute fish toxicity LC50 >100 mg/L Bacteria toxicity EC50 > 100 mg/L
<b>Persistence/Degradability</b>	Minimum biodegradability is 60% BSB 30/CSB resp. 70% DOC
<b>Mobility</b>	Not Determined.
<b>Environmental Fate</b>	No Data Available
<b>Bioaccumulation Potential</b>	No Data Available
<b>Environmental Impact</b>	No Data Available

## 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
<b>Special Precautions for Land Fill</b>	Contact a specialist disposal company or the local waste regulator for advice. Can be landfilled together with household refuse, in accordance with regulations.

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADG Code

<b>Proper Shipping Name</b>	CASTOR OIL, HYDROGENATED
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

### Land Transport (Malaysia)

ADR

<b>Proper Shipping Name</b>	CASTOR OIL, HYDROGENATED
<b>Class</b>	No Data Available

<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

#### Land Transport (New Zealand)

NZS5433

<b>Proper Shipping Name</b>	CASTOR OIL, HYDROGENATED
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

#### Land Transport (United States of America)

US DOT

<b>Proper Shipping Name</b>	CASTOR OIL, HYDROGENATED
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

#### Sea Transport

IMDG Code

<b>Proper Shipping Name</b>	CASTOR OIL, HYDROGENATED
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>EMS</b>	No Data Available
<b>Marine Pollutant</b>	No

#### Air Transport

IATA DGR

<b>Proper Shipping Name</b>	CASTOR OIL, HYDROGENATED
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

## National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & 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)

## 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

## National/Regional Inventories

### Australia (AICS)

Listed

### Canada (DSL)

Listed

### Canada (NDSL)

Not Determined

### China (IECSC)

Not Determined

### Europe (EINECS)

232-292-2

### Europe (REACH)

Not Determined

### Japan (ENCS/METI)

Listed

### Korea (KECI)

Not Determined

### Malaysia (EHS Register)

Not Determined

### New Zealand (NZIoC)

Listed

### Philippines (PICCS)

Not Determined

### Switzerland (Giftliste 1)

Not Determined

### Switzerland (Inventory of Notified Substances)

Not Determined

### Taiwan (NCSR)

Not Determined

### USA (TSCA)

Listed

## 16. OTHER INFORMATION

### Related Product Codes

CASHYD1000, CASHYD1001, CASHYD1002, CASHYD1003, CASHYD1004, CASHYD1005, CASHYD1006, CASHYD1007, CASHYD1008, CASHYD1009, CASHYD1010, CASHYD1011, CASHYD1012, CASHYD1013, CASHYD2000, CASHYD2001, CASHYD2100, CASHYD2500, CASHYD2600, CASHYD2700, CASHYD3000,

CASHYD3200, CASHYD3400, CASHYD3401, CASHYD3402, CASHYD3403, CASHYD3404, CASHYD3405, CASHYD3406, CASHYD3407, CASHYD3408, CASHYD3409, CASHYD3410, CASHYD3411, CASHYD3412, CASHYD3413, CASHYD3900, CASHYD4000, CASHYD4001, CASHYD4002, CASHYD4200, CASHYD4220, CASHYD4250, CASHYD4260, CASHYD4290, CASHYD4400, CASHYD5000, CASHYD6000, CASHYD7000, CASHYD8000

<b>Revision</b>	4
<b>Revision Date</b>	25 Apr 2016
<b>Reason for Issue</b>	update sds
<b>Key/Legend</b>	<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>LC50</b> LC stands for lethal concentration. LC50 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>LD50</b> LD stands for Lethal Dose. LD50 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</b> or <b>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</b> or <b>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 Health and Safety Commission <b>OECD</b> Organisation for Economic Co-operation and Development <b>Oz</b> Ounce <b>PEL</b> Permissible Exposure Limit <b>Pa</b> Pascal <b>ppb</b> Parts per Billion <b>ppm</b> Parts per Million <b>ppm/2h</b> Parts per Million per 2 Hours <b>ppm/6h</b> Parts per Million per 6 Hours <b>psi</b> Pounds per Square Inch <b>R</b> Rankine <b>RCP</b> Reciprocal Calculation Procedure <b>STEL</b> Short Term Exposure Limit <b>TLV</b> Threshold Limit Value <b>tne</b> Tonne <b>TWA</b> Time Weighted Average <b>ug/24H</b> Micrograms per 24 Hours <b>UN</b> United Nations <b>wt</b> Weight</p>