

1. IDENTIFICATION

Product Name	Solvent D60
Other Names	Distillates (petroleum), hydrotreated light; Redsol D60
Uses	Solvent; Used in coatings, cleaning agents; Lubricant, Metalworking fluid, Rolling oil; Used in binders and release agents; Use as a fuel, lamp oil, barbecue lighter; Functional fluids; Road and construction applications; Laboratory activities; Polymer processing.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Distillates, petroleum, hydrotreated light
Product Description	A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 150 °C to 290 °C.

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.

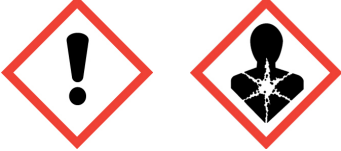
Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420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

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Schedule 5

Globally Harmonised System

Hazard Classification		Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)	
Hazard Categories		Flammable Liquids - Category 4 Skin Corrosion/Irritation - Category 2 Aspiration Hazard - Category 1	
Pictograms			
Signal Word		Danger	
Hazard Statements		H227	Combustible liquid.
		H304	May be fatal if swallowed and enters airways.
		H315	Causes skin irritation.
		AUH066	Repeated exposure may cause skin dryness or cracking
Precautionary Statements	Prevention	P210	Keep away from flames and hot surfaces. No smoking.
		P280	Wear protective gloves/eye protection/face protection.
	Response	P370 + P378	In case of fire: Use carbon dioxide (CO2), dry chemical, alcohol resistant foam or water spray for extinction.
		P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
		P331	Do NOT induce vomiting.
		P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
		P332 + P313	If skin irritation occurs: Get medical advice/attention.
		P362	Take off contaminated clothing and wash before reuse.
	Storage	P403 + P235	Store in a well-ventilated place. Keep cool.
		P405	Store locked up.
	Disposal	P501	Dispose of contents/container in accordance with local / regional / national / international regulations.

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)
---------------------------------------	---

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications	Physical Hazards	3.1D	Flammable liquid - low hazard
	Health Hazards	6.1E	Substances that are acutely toxic –May be harmful, Aspiration hazard
		6.3A	Substances that are irritating to the skin

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Distillates, petroleum, hydrotreated light	Unspecified	64742-47-8	100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician. If vomiting occurs spontaneously, lean patient forward or place on left side (head-down position if possible) to maintain open airway and prevent aspiration. Keep victim calm and warm - Obtain immediate medical care (medical survey during 48 hours). Never give anything by mouth to an unconscious person.
Eye	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.
Skin	IF ON SKIN (or hair): Remove contaminated clothing and shoes immediately. Flush skin and hair with running water for at least 15 minutes; Wash with plenty of soap and water. For gross contamination, drench contaminated clothing and skin with plenty of water before removing clothes. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.
Inhaled	IF INHALED: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor/physician for advice. Apply resuscitation if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim calm and warm - Obtain immediate medical care.
Advice to Doctor	Treat symptomatically. Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.
Medical Conditions Aggravated by Exposure	Repeated exposure may cause skin dryness or cracking.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out. Avoid getting water inside containers.
Flammability Conditions	Combustible liquid; May burn but does not ignite readily.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO ₂), alcohol-resistant foam or water spray for extinction - Do not use water jets; a solid water stream may scatter and spread fire.
Fire and Explosion Hazard	Containers may explode when heated. Incomplete combustion and thermolysis may produce gases of varying toxicity; These may be highly dangerous if inhaled in confined spaces or at high concentration.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic gases, including carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.
Special Fire Fighting Instructions	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Personal Protective Equipment	Wear self-contained breathing apparatus (SCBA) in combination with normal firefighting clothing (full fire kit).
Flash Point	>=61 °C [ASTM D 93]
Lower Explosion Limit	0.6 %
Upper Explosion Limit	5.5 %
Auto Ignition Temperature	238 °C
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation, especially in confined areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames); All equipment used in handling the product must be earthed. Do not touch or walk through spilled material - Contaminated surfaces will be extremely slippery. Avoid breathing vapours and contact with eyes, skin and clothing.
-----------------------------------	---

Clean Up Procedures	Absorb with earth, sand or other non-combustible material; Use clean, non-sparking tools to collect absorbed material and place it into suitable containers for disposal (see SECTION 13).
Containment	Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Dike to collect large liquid spills.
Decontamination	Following product recovery, flush area with water.
Environmental Precautionary Measures	Prevent entry into soils, drains and waterways. Local authorities should be advised if significant spillages cannot be contained.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8); Large spill: Wear self-contained breathing apparatus (SCBA).

7. HANDLING AND STORAGE

Handling	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. Avoid breathing mist/vapours and contact with eyes, skin and clothing. Use personal protective equipment as required (see SECTION 8). Combustible liquid: Handle away from heat (hot manifolds or casings) and any source of ignition (open flames and sparks); No smoking. Take precautionary measures against static discharges. Do not use compressed air for filling, discharging or handling. Do not spray at high pressure (>3 bar). To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Do not allow splash loading and ensure that the product is poured slowly, particularly at the beginning of the operation.
Storage	Store at room temperature in a cool, dry and well-ventilated place, out of direct sunlight. Keep containers tightly closed and properly labelled. Keep away from heat, hot surfaces and all sources of ignition - No smoking. Ground/bond containers, tanks and transfer/receiving equipment. Keep away from incompatible materials (see SECTION 10). Store locked up. Storage installations should be designed with adequate bunds so as to prevent ground or water pollution in case of leaks or spills.
Container	Keep only in the original container or in a suitable container for this kind of product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	<p>No specific exposure standards are available for this product. For Oil mist, refined mineral:</p> <ul style="list-style-type: none"> - Safe Work Australia Exposure Standard: TWA = 5 mg/m³. - New Zealand WES: TWA = 5 mg/m³; STEL = 10 mg/m³; Sampled by a method that does not collect vapour (om). - NIOSH REL: TWA = 5 mg/m³; STEL = 10 mg/m³. - OSHA PEL: TWA = 5 mg/m³. - Immediately dangerous to life or health (IDLH) concentration: 2,500 mg/m³.
Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	<p>Apply technical measures to comply with the occupational exposure limits. 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.</p> <ul style="list-style-type: none"> - Use explosion-proof electrical/ventilating/lighting equipment. Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Design installations (machinery and equipment) to prevent burning product from spreading (tanks, retention systems, interceptors (traps) in drainage systems).
Personal Protection Equipment	<ul style="list-style-type: none"> - Respiratory protection: Wear respiratory protection in case of inadequate ventilation or exposure to spray mist/vapours. Recommended: Particulate filter respirator. If exposure levels cannot be determined or estimated with adequate confidence, or an oxygen deficiency is possible, only self-contained breathing apparatus (SCBA) should be used. - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with side-shields. - Hand protection: Wear protective gloves. Recommended: Impermeable gloves (aliphatic hydrocarbon resistant), e.g. Polyvinyl chloride. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls; Protective shoes or boots. <p>*Protective engineering solutions should be implemented and in use before personal protective equipment is considered. These recommendations apply to the product as supplied; If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers.</p>
Special Hazards Precautions	To avoid risk of explosion - Operate only in cold and degassed tanks, in ventilated premises. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the

Work Hygienic Practices

recommended equipment.

When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Do not dry hands with rags that have been contaminated with product. Do not use abrasives, solvents or fuels. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odour	Hydrocarbon-like
Colour	Colourless
pH	No Data Available
Vapour Pressure	<=0.3 hPa (@ 20 °C)
Relative Vapour Density	4.5 Air = 1
Boiling Point	186 - 210 °C [ASTM D 86]
Melting Point	<0 °C
Freezing Point	No Data Available
Solubility	15 mg/l water 20°C
Specific Gravity	809 - 890
Flash Point	>=61 °C [ASTM D 93]
Auto Ignition Temp	238 °C
Evaporation Rate	<1 (EtEt = 1)
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	809 - 890 kg/m ³
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	3.3 - 6 (log Pow)
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	1.27 mm ² /s (@ 40 °C)
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Combustible liquid; May burn but does not ignite readily.
Reactions That Release Gases or Vapours	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	No dangerous reaction known under conditions of normal use.
Chemical Stability	Stable under recommended storage conditions and under normal processing.
Conditions to Avoid	Keep away from heat, hot surfaces and all sources of ignition. Take precautionary measures against static discharge.
Materials to Avoid	Incompatible with oxidising agents.
Hazardous Decomposition Products	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none">- Acute toxicity: Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause central nervous system depression. If swallowed (accidentally), the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions.- Skin corrosion/irritation: Causes skin irritation. Repeated exposure may cause skin dryness or cracking- Eye damage/irritation: Not classified; May cause burning feeling and temporary redness.- Respiratory/skin sensitisation: Not classified as a sensitiser.- Germ cell mutagenicity: This product is not classified as mutagenic.- Carcinogenicity: This product is not classified carcinogenic.- Reproductive toxicity: Not classified.- STOT (single exposure): Not classified. Vapours inhaled in strong concentration have a narcotic effect on the central nervous system. The inhalation of vapours or aerosols may be irritating for the respiratory tract and for mucous membranes.- STOT (repeated exposure): Not classified.- Aspiration toxicity: May be fatal if swallowed and enters airways. The fluid can enter the lungs and cause damage (chemical pneumonitis, potentially fatal).
Acute	
Ingestion	Acute toxicity (Oral): <ul style="list-style-type: none">- LD50, Rat: >5,000 mg/kg
Other	Acute toxicity (Dermal): <ul style="list-style-type: none">- LD50, Rat: >2,000 mg/kg
Inhalation	Acute toxicity (Inhalation): <ul style="list-style-type: none">- LC50, Rat: >3 mg/l (4 h).
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: <ul style="list-style-type: none">- LC50, Fish (<i>Lepomis macrochirus</i>): >2.2 mg/l (96 h).
Persistence/Degradability	Not readily biodegradable.
Mobility	No information available.
Environmental Fate	Should not be released into the environment - Prevent entry into soils, drains and waterways.
Bioaccumulation Potential	<ul style="list-style-type: none">- Bio-concentration factor (BCF): 130 - 159- logPow: 3.3 - 6
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Do NOT mix with other wastes. Where possible, recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of at a licensed waste oil facility and in accordance with local/regional/national regulations.
Special Precautions for Land Fill	Contaminated packaging: Empty containers may contain flammable or explosive vapours. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	Solvent D60 (Distillates, petroleum, hydrotreated light)
Class	C1 Combustible Liquids - Flash Point >60°C - <=93°C, Closed Cup
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

Proper Shipping Name	Solvent D60 (Distillates, petroleum, hydrotreated light)
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	Solvent D60 (Distillates, petroleum, hydrotreated light)
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	Solvent D60 (Distillates, petroleum, hydrotreated light)
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	Solvent D60 (Distillates, petroleum, hydrotreated light)
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	Solvent D60 (Distillates, petroleum, hydrotreated light)
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 & 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)	Schedule 5

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR002649
----------------------	-----------

National/Regional Inventories

Australia (AICS)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	265-149-8
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
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	ALHYDR3300, ALHYDR3301, ALHYDR3302, ALHYDR3303, ALHYDR3370, ALHYDR3600, ALHYDR4200, ALHYDR4201, ALHYDR4300, ALHYDR4400, ALHYDR5900, ALHYDR6000, ALHYDR6001, ALHYDR6002, ALHYDR6100, ALHYDR6200, ALHYDR6201, ALHYDR6300, ALHYDR6301, ALHYDR6400, ALHYDR6700, DEMISP3250, DEMISP3420, DEMISP3430, DEMISP3431, DEMISP3432, DEMISP3435, DEMISP3460, DEMISP3461, DEMISP3462
Revision	4
Revision Date	20 Oct 2017
Reason for Issue	Updated SDS
Key/Legend	< Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm² Square Centimetres CO2 Carbon Dioxide COD Chemical Oxygen Demand deg C (°C) Degrees Celcius EPA (New Zealand) Environmental Protection Authority of New Zealand deg F (°F) Degrees Farenheit g Grams g/cm³ Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluable in each other. inHg Inch of Mercury inH2O Inch of Water K Kelvin kg Kilogram

kg/m³ Kilograms per Cubic Metre

lb Pound

LC50 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.

LD50 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.

ltr or **L** Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH₂O Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Health and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

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