

1. IDENTIFICATION

Product Name	Petroleum Resins
Other Names	Hydrocarbon resin [CAS#68131-77-1]; Petroleum hydrocarbon resin [CAS#68478-07-9]
Uses	Tackifier resin; Adhesives, Coatings, Sealants, Rubber, Wax; Road marking.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Hydrocarbon resins
Product Description	The product may contain varying levels of additives such as slip and anti-blocking agents, antioxidants and stabilisers.

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
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.

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)
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Ingredients determined not to be hazardous	Unspecified	Unspecified	100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink plenty of water. Get medical advice/attention if you feel unwell.
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 10 - 15 minutes. If eye irritation persists, get medical advice/attention.
Skin	IF ON SKIN: Wash with plenty of soap and running water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention. *In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. Removal of solidified molten material from skin requires medical assistance.
Inhaled	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.
Advice to Doctor	Treat symptomatically. No special measures required.
Medical Conditions Aggravated by Exposure	No information available.

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.
Flammability Conditions	May burn but does not ignite readily.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO ₂), foam or water spray for extinction - Do not use water jets.
Fire and Explosion Hazard	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Material can accumulate static charges which may cause an ignition.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic fumes, including oxides of Carbon, flammable hydrocarbons, smoke and incomplete combustion products.

Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may pollute waterways. *Fire residues and extinguishing water must be disposed safely.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flash Point	>=200 °C
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	350 - 450 °C
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material - Spilled pellets present a slipping hazard on hard surfaces! Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Collect material with a clean shovel and place into clean, dry containers and cover loosely; move containers from spill area. Avoid dispersal of dust in the air. Non-sparking tools should be used.
Containment	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Prevent dust cloud.
Decontamination	No information available.
Environmental Precautionary Measures	Prevent entry into drains and waterways.
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). Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

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. Minimise dust generation and accumulation. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Avoid conditions generating heat during transfer operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Avoid prolonged exposure to elevated temperatures; Do NOT handle near sources of ignition - No smoking. Prevent spills and leakage to avoid slip hazard.
Storage	Store in a cool, dry and well-ventilated place, protected from direct sunlight. Keep container tightly closed. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). *Polymer products may be dimensionally unstable under certain conditions. Avoid inappropriate stacking of palletised bags or other package units.
Container	The container choice/storage vessel may effect static accumulation and dissipation. - Suitable containers/packing: Flexible container bag/Paper bag. - Suitable materials & coatings (chemical compatibility): Paper, Steel, Polyethylene, Polypropylene.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m ³ (measured as inhalable dust). - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m ³ ; TWA = 3 mg/m ³ (respirable dust).
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Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	Adequate ventilation should be provided so that exposure limits are not exceeded. It is recommended that all dust control equipment, such as local exhaust ventilation and material transport systems involved in handling of this product, contain explosion relief vents or an explosion suppression system or an oxygen- deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area.
Personal Protection Equipment	<ul style="list-style-type: none"> - Respiratory protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Particulate air-purifying respirator approved for dust/oil mist is recommended (refer to AS/NZS 1715 & 1716). For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded. - Eye/face protection: Wear appropriate eye protection to avoid eye contact. If contact is likely, safety glasses with side shields are recommended. - Hand protection: Handle with gloves. If product is hot, thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.
Special Hazards Precautions	Should significant vapours/fumes be generated during thermal processing of this product, it is recommended that work stations be monitored for the presence of thermal degradation by-products which may evolve at elevated temperatures (for example, oxygenated components).
Work Hygienic Practices	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Granular, powder, prills
Odour	None to mild
Colour	Pale yellow
pH	No Data Available
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	80 - 140 °C
Freezing Point	No Data Available
Solubility	Insoluble or negligible solubility in water
Specific Gravity	0.92 - 1.02
Flash Point	>=200 °C
Auto Ignition Temp	350 - 450 °C
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	800 - 2,000
Net Propellant Weight	No Data Available

Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	Softening point: 80 - 120 °C
Potential for Dust Explosion	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
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	May burn but does not ignite readily. This material is a static accumulator - Material can accumulate static charges which may cause an ignition.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating and/or toxic fumes, including oxides of Carbon, flammable hydrocarbons, smoke and incomplete combustion products.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	Care should be taken when storing and handling this product. Apart from the specific nature of the polymer product, conditions such as humidity, sunlight and temperature have an influence on the way the product behaves during storage and handling.
Chemical Stability	Material is stable under normal conditions.
Conditions to Avoid	Avoid generating dust. Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong oxidisers, strong acids, halogens.
Hazardous Decomposition Products	Material does not decompose at ambient temperatures. Fire/decomposition may produce irritating and/or toxic fumes, including oxides of Carbon, flammable hydrocarbons, smoke and incomplete combustion products.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<p>Information on possible routes of exposure:</p> <ul style="list-style-type: none"> - Ingestion: Minimally toxic (based on chemical structure). No adverse effects due to ingestion are expected. - Eye contact: If dust is generated, it could scratch the eyes; May cause mild, short-lasting discomfort to eyes. - Skin contact: Negligible irritation to skin at ambient temperatures. Product may cause irritation mechanically due to its content of fine dust. Contact with hot material can cause thermal burns which may result in permanent damage. - Inhalation: If dust is generated, it could cause minor irritation to the respiratory tract. When heated, the vapours/fumes given off may cause respiratory tract irritation. <p>Chronic effects: No information available.</p> <p>*Under the normal conditions for processing and use of this polymer the encapsulated additives are not expected to pose any health hazard. However, grinding of the polymer is not recommended without the use of appropriate measures to control exposure.</p>
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Acute	
Ingestion	Acute toxicity (Oral): - LD50, Rat: >5,000 mg/kg [Petroleum hydrocarbon resin (CAS No. 68478-07-9)].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Not expected to be harmful to aquatic organisms. Not expected to be harmful to terrestrial organisms.
Persistence/Degradability	Expected to be persistent. Transformation due to hydrolysis not expected to be significant. Transformation due to photolysis not expected to be significant. Transformation due to atmospheric oxidation not expected to be significant.
Mobility	Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.
Environmental Fate	Slightly hazardous for water. Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.
Bioaccumulation Potential	Potential to bioaccumulate is low.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations and material characteristics at the time of disposal. *Must not be disposed of together with household garbage.
Special Precautions for Land Fill	Suitable methods of disposal include supervised incineration, preferably with energy recovery, or appropriate recycling.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code	
Proper Shipping Name	Petroleum Resins
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 LAND transport.

Land Transport (China)

Proper Shipping Name	Petroleum Resins
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

Proper Shipping Name	Petroleum Resins
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	Petroleum Resins
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	Petroleum Resins
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	Petroleum Resins
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	Petroleum Resins
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)
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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 (AIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined

Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
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)	Not Determined

16. OTHER INFORMATION

Related Product Codes	PERESB1000, PERESB1001, PERESB1002, PERESB1003, PERESB1115, PERESB1200, PERESB1500, PERESB1600, PERESB1800, PERESB2000, PERESB2104, PERESB2120, PERESB2125, PERESB2500, PERESB3000, PERESB3100, PERESB3300, PERESB3500, PERESB4000, PERESB4100, PERESB4200, PERESB4300, PERESB5000, PERESB5100, PERESB5200, PERESB5500, PERESB5600, PERESB5700, PERESB6000, PERESB7000, PERESB7500, PERESB7550, PERESB7800, PERESB8100, PERESB8200, PERESB8300, PERESB9000, PERESB9010, PERESB9050, PERESB9070, PERESB9100, PERESB9101, PERESB9102, PERESB9500, PERESB9600, PERESB9800, PERESB9900, PERESC1000, PERESC1001, PERESC1002, PERESC2000, PERESC3000, PERESC4000, PERESC5000, PERESI0100, PERESI0103, PERESI0105, PERESI0850, PERESI1000, PERESI1001, PERESI1002, PERESI1003, PERESI1004, PERESI1005, PERESI1006, PERESI1007, PERESI1008, PERESI1009, PERESI1010, PERESI1011, PERESI1012, PERESI1013, PERESI1014, PERESI1015, PERESI1100, PERESI1120, PERESI1200, PERESI1220, PERESI1250, PERESI1251, PERESI1275, PERESI1280, PERESI1700, PERESI2000, PERESI2100, PERESI2600, PERESI3000, PERESI3010, PERESI3200, PERESI3500, PERESI3800, PERESI3900, PERESI4000, PERESI4001, PERESI4200, PERESI4201, PERESI4500, PERESI4501, PERESI4502, PERESI4600, PERESI4800, PERESI5000, PERESI5001, PERESI5002, PERESI5100, PERESI5200, PERESI5300, PERESI5600, PERESI5700, PERESI5800, PERESI5900, PERESI6000, PERESI6001, PERESI6200, PERESI6700, PERESI6800, PERESI6801, PERESI6900, PERESI7000, PERESI7001, PERESI7002, PERESI7003, PERESI7100, PERESI7200, PERESI7300, PERESI7400, PERESI7500, PERESI7800, PERESI8000, PERESI8001, PERESI8500, PERESI8800, PERESI8900, PERESI8950, PERESI9000, PERESI9001, PERESI9002, PERESI9010, PERESI9020, PERESI9100, PERESI9200, PERESI9250, PERESI9300, PERESI9301, PERESI9400, PERESI9500, PERESI9501, PERESI9502, PERESI9503, PERESI9600, PERESI9700, PERESI9800, PERESI9900
Revision	5
Revision Date	25 Dec 2019
Reason for Issue	SDS updated
Key/Legend	<p>< Less Than</p> <p>> Greater Than</p> <p>AICS Australian Inventory of Chemical Substances</p> <p>atm Atmosphere</p> <p>CAS Chemical Abstracts Service (Registry Number)</p> <p>cm² Square Centimetres</p> <p>CO₂ Carbon Dioxide</p> <p>COD Chemical Oxygen Demand</p> <p>deg C (°C) Degrees Celcius</p> <p>EPA (New Zealand) Environmental Protection Authority of New Zealand</p> <p>deg F (°F) Degrees Farenheit</p> <p>g Grams</p> <p>g/cm³ Grams per Cubic Centimetre</p> <p>g/l Grams per Litre</p>

HSNO Hazardous Substance and New Organism

IDLH Immediately Dangerous to Life and Health

immiscible Liquids are insoluble 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