

1. IDENTIFICATION

Product Name	Gum Turpentine
Other Names	Gum Turpentine Super Grade; Wood turpentine
Uses	Solvent; used as raw material in paints, synthetic camphor, terpineol, synthetic perfume, medicine production, synthetic resin, organic chemical industry.
Chemical Family	No Data Available
Chemical Formula	C ₁₀ H ₁₆ (approx)
Chemical Name	Turpentine, oil
Product Description	Turpentine is obtained by distilling the gum from various species of pine. It is a mixture of isomeric terpene hydrocarbons. Composition varies with refining methods and the age, location and species of the softwood source.

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)

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 3
 Acute Toxicity (Oral) - Category 4
 Acute Toxicity (Dermal) - Category 4
 Acute Toxicity (Inhalation) - Category 4
 Skin Corrosion/Irritation - Category 2
 Serious Eye Damage/Irritation - Category 2A
 Sensitisation (Skin) - Category 1
 Specific Target Organ Toxicity (Single Exposure) - Category 3
 Aspiration Hazard - Category 1
 Long-term Hazard To The Aquatic Environment - Category 2

Pictograms



Signal Word

Danger

Hazard Statements

H226 Flammable liquid and vapour.
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing fumes/mists/vapours/spray.
P273 Avoid release to the environment.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting and all other equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P235 Keep cool.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P271 Use only outdoors or in a well-ventilated area.
 Response **P370 + P378** In case of fire: Use carbon dioxide (CO₂), dry chemical or foam for extinction.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P331 Do NOT induce vomiting.
P312 Call a POISON CENTER or doctor if you feel unwell.

	P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	P337 + P313	If eye irritation persists: Get medical attention.
	P333 + P313	If skin irritation or rash occurs: Get medical attention.
	P363	Wash contaminated clothing before reuse.
	P391	Collect spillage.
	P304 + P340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
	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

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
Turpentine, oil	Unspecified	8006-64-2	<=100 %

4. FIRST AID MEASURES**Description of necessary measures according to routes of exposure**

Swallowed	IF SWALLOWED: Rinse mouth, then drink a glass of water. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. 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 flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes. Get immediate 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. Call a Poison Centre or doctor/physician for advice. Wash contaminated clothing and shoes before reuse.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor/physician for advice. Apply resuscitation if victim is not breathing - Do not use direct mouth-to-mouth method if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device - Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically and supportively. Keep victim calm and warm - Obtain immediate medical care. Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
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. Avoid getting water inside containers.
Flammability Conditions	HIGHLY FLAMMABLE: Low flashpoint - Will be easily ignited by heat, sparks or flame.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO ₂), normal foam or dry sand for extinction - Do not use water jets. *Caution: Use of water spray when fighting fire may be inefficient.
Fire and Explosion Hazard	Risk of violent reaction or explosion: Vapours will form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Most vapours are heavier than air and will collect in low or confined areas. Many liquids are lighter than water. Containers may explode when heated. Vapours from runoff may create an explosion hazard.
Hazardous Products of Combustion	Fire will produce irritating, toxic and/or corrosive gases, including Carbon oxides.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may pollute waterways; Vapours from runoff may create an explosion hazard.
Personal Protective Equipment	Self-contained breathing apparatus (SCBA) and chemical protective clothing should be worn. SCBA and structural firefighting uniform provide VERY limited protection.
Flash Point	30 - 46 °C [Closed cup]
Lower Explosion Limit	0.8 %
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	220 - 255 °C
Hazchem Code	3Y

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed space before entering. ELIMINATE all ignition sources - All equipment used when handling the product must be earthed. Do not touch or walk through spilled material - Slippery when spilt. Avoid accidents, clean up immediately. Avoid breathing vapours and contact with eyes, skin and clothing.
Clean Up Procedures	Large spills: Pump into steel drums and hold for waste disposal. Absorb small spills/residues with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect material and place it in suitable containers for later disposal (see SECTION 13).
Containment	Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Vapour-suppressing foam may be used to control vapours - Water spray may be used to knock down or divert vapour clouds.
Decontamination	Do not wash untreated material down the drain or sewer.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses. If contamination of sewers or waterways has occurred advise local emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep upwind and to higher ground. Keep unauthorised personnel away. Large spills: Immediately contact Police or Fire Brigade; Consider initial downwind evacuation of areas within at least 300 m.
Personal Precautionary Measures	SCBA and gas-tight suits should be worn when dealing with damaged or leaking containers and where there is no risk of ignition. SCBA and structural firefighting uniform provide VERY limited protection where there is a risk of ignition.

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours/spray and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). HIGHLY FLAMMABLE: Keep away from heat and sources of ignition - No smoking. Ground/bond container and receiving equipment. Use explosion-proof
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electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid release to the environment - Collect spillage (see SECTION 6).

Storage

Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep containers tightly closed when not in use - check regularly for leaks. Keep away from heat and source of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up.

Container

Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**General**

For Turpentine (CAS No. 8006-64-2):

- Safe Work Australia Exposure Standard: TWA = 100 ppm (557 mg/m³); Respiratory and/or skin sensitiser (Sen).
- New Zealand Workplace Exposure Standard: TWA = 100 ppm (557 mg/m³).
- NIOSH REL/OSHA PEL: TWA = 100 ppm (560 mg/m³).
- Immediately dangerous to life or health (IDLH) concentration: 800 ppm.

Exposure Limits

No Data Available

Biological Limits

No information available.

Engineering Measures

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. Use explosion-proof electrical/ventilating/lighting equipment.

Personal Protection Equipment

- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Organic vapour/particulate filter respirator (refer to AS/NZS 1715 & 1716).
- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Chemical goggles.
- Hand protection: Wear protective gloves. Recommended: Impervious gloves.
- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls, safety shoes.

Special Hazards Precautions

The odour warning when the exposure limit value is exceeded is insufficient.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical State**

Liquid

Appearance

Clean, transparent liquid

Odour

Pungent

Colour

Colourless

pH

No Data Available

Vapour Pressure

No Data Available

Relative Vapour Density

No Data Available

Boiling Point

149 - 180 °C

Melting Point

-50 - -60 °C

Freezing Point

No Data Available

Solubility

Insoluble in water

Specific Gravity

<=0.87

Flash Point

30 - 46 °C [Closed cup]

Auto Ignition Temp

220 - 255 °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	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	log Pow = 4.83
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	No information available.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	Risk of violent reaction or explosion
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	HIGHLY FLAMMABLE: Low flashpoint - Will be easily ignited by heat, sparks or flame.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including Carbon oxides.
Release of Invisible Flammable Vapours and Gases	Vapours will form explosive mixtures with air.

10. STABILITY AND REACTIVITY

General Information	Decomposes slowly under the influence of air and light. Reacts violently with oxidants, halogens, combustible substances, mineral acids. Attacks plastic and rubber.
Chemical Stability	Stable under specified conditions of storage, shipment and use.
Conditions to Avoid	Keep away from heat and sources of ignition. Avoid exposure to air and light.
Materials to Avoid	Incompatible/reactive with strong oxidising agents.
Hazardous Decomposition Products	Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including Carbon oxides.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none"> - Acute toxicity: Harmful if swallowed, in contact with skin and if inhaled. Symptoms of intoxication include central nervous system (CNS) depression, renal damage, spasms, coma, headache, dizziness, nausea, weakness, burning sensation in the mouth, throat and stomach, thirst, vomiting and diarrhoea, confusion, convulsions, unconsciousness. - Skin corrosion/irritation: Causes skin irritation. Symptoms include redness, pain. The substance defats the skin, which may cause dryness or cracking. - Eye damage/irritation: Causes serious eye irritation. Symptoms include blurred vision, pain, redness.
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- Respiratory/skin sensitisation: May cause an allergic skin reaction.
- Germ cell mutagenicity: Turpentine is not considered to be genotoxic.
- Carcinogenicity: No information available (not classifiable as a human carcinogen).
- Reproductive toxicity: No information available.
- STOT (single exposure): May cause drowsiness or dizziness. Inhalation of turpentine may cause headache, dizziness, nausea and confusion. Exposure at high levels could cause tachycardia, unconsciousness, respiratory failure and death. Turpentine (vapour) is a sensory irritant, which evokes a stinging or burning sensation in the eyes and upper respiratory tract (nose and throat). Symptoms include cough, sore throat, shortness of breath, burning sensation.
- STOT (repeated exposure): Turpentine may cause adverse health effects following repeated inhalation exposure. The substance may cause effects on the central nervous system, bladder and kidneys.
- Aspiration toxicity: May be fatal if swallowed and enters airways. Aspiration of turpentine may cause chemical pneumonitis, accumulation of fluid in the lungs, breathing difficulties and cyanosis.

Acute

Ingestion	Acute toxicity (Oral): - LD50, Rat: >2,000 mg/kg bw. [NICNAS].
Other	Acute toxicity (Dermal): - LD50, Rabbit: >2,000 mg/kg bw. [NICNAS].
Inhalation	Acute toxicity (Inhalation): - LC50, Rat: 13.7 mg/L vapours (4 h) [NICNAS].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	No information available.
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	Hazardous for water. Toxic to aquatic life with long lasting effects - Do not allow product to reach ground water, water course or sewage system.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations. Contact a licensed professional waste disposal service to dispose of this material.
Special Precautions for Land Fill	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

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

ADG Code

Proper Shipping Name	TURPENTINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available

SAFETY DATA SHEET GUM TURPENTINE REVISION 3, DATE 28 MAY 20

EPG	15 Liquids - Flammable
UN Number	1299
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	TURPENTINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	15 Liquids - Flammable
UN Number	1299
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	TURPENTINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	15 Liquids - Flammable
UN Number	1299
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name	TURPENTINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
ERG	128 Flammable Liquids (Non-Polar / Water-Immiscible)
UN Number	1299
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	TURPENTINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	1299
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

EMS	F-E, S-E
Marine Pollutant	Yes

Air Transport
IATA DGR

Proper Shipping Name	TURPENTINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	1299
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

National Transport Commission (Australia)
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	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	TURPENTINE OIL
Poisons Schedule (Aust)	Schedule 5

Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR001233 (Reissued)
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National/Regional Inventories

Australia (AIIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	232-350-7
Europe (REACH)	Not Determined
Japan (ENCs/METI)	Listed
Korea (KECI)	KE-35026
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	GUTURP1000, GUTURP1001, GUTURP1002, GUTURP1003, GUTURP1004, GUTURP1005, GUTURP1006, GUTURP1007, GUTURP1008, GUTURP1009, GUTURP1010, GUTURP1500, GUTURP1501, GUTURP1502, GUTURP2000, GUTURP2500, GUTURP3000, GUTURP3001, GUTURP3300, GUTURP3400, GUTURP3500, GUTURP3501, GUTURP3505, GUTURP3510, GUTURP3512, GUTURP3600, GUTURP3700, GUTURP4000, GUTURP4001, GUTURP4002, GUTURP4400, GUTURP4401, GUTURP4402, GUTURP4403, GUTURP4404, GUTURP4405, GUTURP4406, GUTURP4407, GUTURP4408, GUTURP5000, GUTURP6000, GUTURP7000, GUTURP8000, GUTURP9000
Revision	3
Revision Date	28 May 2020
Reason for Issue	updated sds
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> <p>HSNO Hazardous Substance and New Organism</p> <p>IDLH Immediately Dangerous to Life and Health</p> <p>immiscible Liquids are insoluable in each other.</p> <p>inHg Inch of Mercury</p> <p>inH₂O Inch of Water</p> <p>K Kelvin</p> <p>kg Kilogram</p> <p>kg/m³ Kilograms per Cubic Metre</p> <p>lb Pound</p> <p>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.</p> <p>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.</p> <p>ltr or L Litre</p> <p>m³ Cubic Metre</p> <p>mbar Millibar</p> <p>mg Milligram</p> <p>mg/24H Milligrams per 24 Hours</p> <p>mg/kg Milligrams per Kilogram</p> <p>mg/m³ Milligrams per Cubic Metre</p> <p>Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.</p> <p>mm Millimetre</p> <p>mmH₂O Millimetres of Water</p>

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