



Safety Data Sheet

Dipentene (Mixture Of Isomers)

Revision 3, Date 21 Jan 2021

1. IDENTIFICATION

| | |
|----------------------------|---|
| Product Name | Pine Solv - Dipentene (Mixture Of Isomers) |
| Other Names | Cyclohexene, 1-Methyl-4-(1-Methylethenyl)-; Dipent (Mixed Isomers); Dipentene |
| Uses | Heavy duty Cleaner/Spotter |
| Chemical Family | No Data Available |
| Chemical Formula | C ₁₀ H ₁₆ |
| Chemical Name | Dipentene (Mixture Of Isomers) |
| Product Description | EMERGENCY OVERVIEW: May cause irritation to the eyes, skin and respiratory system., Harmful to flora, fauna, soil organisms and aquatic organisms., May cause sensitization by skin contact |

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. | 2132A E. Dominguez Street Carson CA 90810 USA | +1-424-675-3200 |
| Redox Chemicals Sdn Bhd | No. 8, Block G, Ground Floor, Taipan 2 Jalan PJU 1A/3 Ara Damansara 47301, Petaling Jaya, Selangor, Malaysia | +60-3-7843-6833 |

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

Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Hazard Categories

Flammable Liquids - Category 3
 Skin Corrosion/Irritation - Category 2
 Sensitisation (Skin) - Category 1
 Aspiration Hazard - Category 1
 Acute Hazard To The Aquatic Environment - Category 1
 Long-term Hazard To The Aquatic Environment - Category 1

Pictograms



Signal Word Danger

Hazard Statements

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

| | | | |
|--------------------|--------------------|---|--|
| Prevention | P233 | Keep container tightly closed. | |
| | P240 | Ground/bond container and receiving equipment. | |
| | P242 | Use only non-sparking tools. | |
| | P243 | Take precautionary measures against static discharge. | |
| | P264 | Wash exposed skin thoroughly after handling. | |
| | P272 | Contaminated work clothing should not be allowed out of the workplace. | |
| | P273 | Avoid release to the environment. | |
| | P210 | Keep away from heat/sparks/open flames/hot surfaces. No smoking. | |
| | P241 | Use explosion-proof electrical/ventilating/lighting/equipment. | |
| | P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. | |
| | P280 | Wear protective gloves/protective clothing/eye protection/face protection. | |
| | Response | P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| | | P303 + P361 + P353 | IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P321 | | Specific treatment (see First Aid Measures on Safety Data Sheet). | |
| P331 | | Do NOT induce vomiting. | |
| P333 + P313 | | If skin irritation or rash occurs: Get medical advice/attention. | |
| Storage | P362 | Take off contaminated clothing and wash before reuse. | |
| | P370 + P378 | In case of fire: Use dry chemical, alcohol resistant foam or dry sand for extinction. | |
| | P391 | Collect spillage. | |
| Disposal | P403 + P235 | Store in a well-ventilated place. Keep cool. | |
| | P405 | Store locked up. | |
| | 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)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

| | | | |
|-----------------------------|-----------------------|-------------|--|
| HSNO Classifications | Physical Hazards | 3.1C | Flammable liquid - medium hazard |
| | Health Hazards | 6.3B | Substances that are mildly irritating to the skin |
| | | 6.4A | Substances that are irritating to the eye |
| | | 6.5B | Substances that are contact sensitisers |
| | Environmental Hazards | 9.1A | Substances that are very ecotoxic in the aquatic environment |

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

| Chemical Entity | Formula | CAS Number | Proportion |
|---------------------------|-------------------|------------|------------|
| Dipentene (Mixed Isomers) | No Data Available | 138-86-3 | 96.0 % |

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

| | |
|--|---|
| Swallowed | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |
| Eye | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately. |
| Skin | Rinse immediately with plenty of water for at least 15 minutes. Call a physician immediately. |
| Inhaled | Remove victim from exposure to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately. |
| Advice to Doctor | Treat symptomatically based on judgement of doctor and individual reactions of patient. |
| Medical Conditions Aggravated by Exposure | No information available on medical conditions aggravated by exposure to this product. |

5. FIRE FIGHTING MEASURES

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|---|---|
| General Measures | Flame-proof equipment is necessary in all areas where this chemical is being used. Nearby equipment must be earthed. |
| Flammability Conditions | Product is a flammable liquid. |
| Extinguishing Media | In case of fire, appropriate extinguishing media include dry chemical, carbon dioxide, water spray and alcohol foam. Water mist may be used to cool closed containers. |
| Hazardous Products of Combustion | Burning produces irritant fumes. Thermal decomposition can lead to release of irritating gases and vapours such as carbon oxides. |
| Special Fire Fighting Instructions | 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. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment. |
| Personal Protective Equipment | 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) or chemical splash suit. |
| Flash Point | \$DMPTFEDVQ |
| Lower Explosion Limit | 6.1 |
| Upper Explosion Limit | 0.7 |
| Auto Ignition Temperature | \$ |

Hazchem Code

3Y

6. ACCIDENTAL RELEASE MEASURES

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|---|---|
| General Response Procedure | Shut off all possible sources of ignition. Avoid accidents, clean up immediately. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt. |
| Clean Up Procedures | Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment. |
| Containment | Stop leak if safe to do so. |
| Decontamination | Do not flush into surface water or sanitary sewer system. |
| Environmental Precautionary Measures | Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Use clean, non-sparking tools and equipment. |
| Evacuation Criteria | Evacuate all unnecessary personnel. |
| Personal Precautionary Measures | Personnel involved in the clean up should wear full protective clothing as listed in section 8. |

7. HANDLING AND STORAGE

| | |
|------------------|--|
| Handling | 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 vapours. Avoid prolonged or repeated exposure. Remove contaminated clothing and wash before reuse. Chemicals should be used only by those trained in handling potentially hazardous materials. Use only in area provided with appropriate exhaust ventilation. |
| Storage | Store in a cool, dry, well-ventilated, fire-proof area. Keep containers tightly sealed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Ground and bond storage containers. Store away from incompatible materials as listed in section 10. Store at room temperature. This product has a UN Classification of 2052 and a Dangerous Goods Class 3 (flammable) according to The Australian Code for the Transport of Dangerous Goods By Road and Rail |
| Container | Store in original packaging as approved by manufacturer. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|--------------------------------------|--|
| General | No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). |
| Exposure Limits | No Data Available |
| Biological Limits | No information available on biological limit values for this product. |
| 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 a flame proof exhaust ventilation system. |
| Personal Protection Equipment | RESPIRATOR: Breathing apparatus only if aerosol or dust is formed (AS1715/1716). EYES: Chemical goggles to prevent splashing in the eyes (AS1336/1337). HANDS: PVC or other plastic material gloves (AS2161). CLOTHING: Impervious clothing and safety footwear (AS3765/2210). |
| Work Hygienic Practices | Handle in accordance with good industrial hygiene and safety practice. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------|--------|
| Physical State | Liquid |
| Appearance | Liquid |

| | |
|---|--|
| Odour | No Data Available |
| Colour | Clear - Slightly Yellow |
| pH | No Data Available |
| Vapour Pressure | 11B! \$ |
| Relative Vapour Density | 4.70 Air = 1 |
| Boiling Point | \$ |
| Melting Point | \$ |
| Freezing Point | No Data Available |
| Solubility | Insoluble |
| Specific Gravity | 0.86 g/cm ³ |
| Flash Point | \$DMPTFEDVQ |
| Auto Ignition Temp | \$ |
| 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 | 136.23 g/mol |
| 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 | Refractive index at 20 deg C: 1.4680 - |
| Potential for Dust Explosion | 1.4770 Product is a liquid. |
| Fast or Intensely Burning Characteristics | No Data Available |
| Flame Propagation or Burning Rate of Solid Materials | No Data Available |
| Non-Flammables That Could Contribute Unusual Hazards to a Fire | No Data Available |
| Properties That May Initiate or Contribute to Fire Intensity | No Data Available |
| Reactions That Release Gases or Vapours | No Data Available |
| Release of Invisible Flammable Vapours and Gases | No Data Available |

10. STABILITY AND REACTIVITY

| | |
|----------------------------|---|
| General Information | Flammable liquid. |
| Chemical Stability | Product is stable under directed conditions of use, storage and |
| Conditions to Avoid | temperature. Exposure to air or moisture over prolonged periods. |
| Materials to Avoid | Incompatible with oxidising and spontaneously flammable products. Forms explosive mixture with air. Strong oxidizers may cause fire and explosions. Thermal decomposition can lead to release of irritating gases and vapours such as carbon oxides. |

Hazardous Decomposition Products

Hazardous Polymerisation None under normal processing.

11. TOXICOLOGICAL INFORMATION

General Information Oral LD50 Rat: 5300mg/Kg
 Oral LD50 Mouse: 5550uL/Kg
 Chronic Toxicity: Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness. Local effects: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Specific effects: May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.

EyeIrritant Contact with eyes may cause irritation.

Ingestion Ingestion may cause irritation to the mouth, throat and stomach.

Inhalation Irritating to respiratory system.

SkinIrritant Irritating to skin. May cause sensitization by skin contact. May cause allergic skin reaction.

Carcinogen Category No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 80 mg/l - 96.0 h
 Toxicity to daphnia and other aquatic nvertebrates : EC50 - Daphnia magna (Water flea) - 17 mg/l - 48 h Very toxic to aquatic life.

Persistence/Degradability No information available on persistence/degradability for this product.

Mobility No information available on mobility for this product.
 Insoluble in water.

Environmental Fate Avoid contaminating waterways, drains and sewers.

Bioaccumulation Potential No information available on bioaccumulation for this product.

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information 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.

Special Precautions for Land Fill Contact a specialist disposal company or the local waste regulator for advice.
 This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous. Contaminated packaging: Do not re-use empty containers Methods for cleaning up: Soak up with inert absorbent material.

14. TRANSPORT INFORMATION

Land Transport (Australia)
 ADG

Proper Shipping Name DIPENTENE
Class 3 Flammable Liquids

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| | |
|---------------------------|-------------------------------|
| Subsidiary Risk(s) | No Data Available |
| EPG | 14 Liquids - Highly Flammable |
| UN Number | 2052 |
| Hazchem | 3Y |
| Pack Group | III |
| Special Provision | No Data Available |

Land Transport (Malaysia)

ADR Code

| | |
|-----------------------------|-------------------------------|
| Proper Shipping Name | DIPENTENE |
| Class | 3 Flammable Liquids |
| Subsidiary Risk(s) | No Data Available |
| EPG | 14 Liquids - Highly Flammable |
| UN Number | 2052 |
| Hazchem | 3Y |
| Pack Group | III |
| Special Provision | No Data Available |

Land Transport (New Zealand)

NZS5433

| | |
|-----------------------------|-------------------------------|
| Proper Shipping Name | DIPENTENE |
| Class | 3 Flammable Liquids |
| Subsidiary Risk(s) | No Data Available |
| EPG | 14 Liquids - Highly Flammable |
| UN Number | 2052 |
| Hazchem | 3Y |
| Pack Group | III |
| Special Provision | No Data Available |

Land Transport (United States of America)

US DOT

| | |
|-----------------------------|---|
| Proper Shipping Name | DIPENTENE |
| Class | 3 Flammable Liquids |
| Subsidiary Risk(s) | No Data Available |
| ERG | 128 Flammable Liquids (Non-Polar / Water- |
| UN Number | Immiscible) 2052 |
| Hazchem | 3Y |
| Pack Group | III |
| Special Provision | No Data Available |

Sea Transport

IMDG

| | |
|-----------------------------|---------------------|
| Proper Shipping Name | DIPENTENE |
| Class | 3 Flammable Liquids |
| Subsidiary Risk(s) | No Data Available |
| UN Number | 2052 |
| Hazchem | 3Y |
| Pack Group | III |
| Special Provision | No Data Available |
| EMS | FE,SE |

Marine Pollutant Yes

Air Transport

IATA

Proper Shipping Name DIPENTENE
Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available
UN Number 2052
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)

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 HSR001142

National/Regional Inventories

Australia (AICS) Listed
Canada (DSL) Not Determined
Canada (NDSL) Not Determined
China (IECSC) Not Determined
Europe (EINECS) 205-341-0
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 | DIPENT1000, DIPENT1001, DIPENT1002, DIPENT1003, DIPENT1004, DIPENT1005, DIPENT1006, DIPENT1007, DIPENT1008, DIPENT1009, DIPENT1010, DIPENT1011, DIPENT1012, DIPENT1013, DIPENT2000, DIPENT2500, DIPENT3000, DIPENT4000, DIPENT4001, DIPENT4002, DIPENT4003, DIPENT4004, DIPENT4100, DIPENT9300, DIPENT8000, DIPENT2100, DIPENT8001, DIPENT2001 |
| Revision | 3 |
| Revision Date | 21 Jan 2021 |
| Reason for Issue | SDS Updated |
| Key/Legend | <p>< 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 GHJ Degrees Celcius EPA (New Zealand) Environmental Protection Authority of New Zealand GHJ 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</p> |

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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