

1. IDENTIFICATION

Product Name	Isoparaffin Solvent H
Other Names	ISOPAR H
Uses	Solvent.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Naphtha, petroleum, hydrotreated heavy
Product Description	Isoparaffinic Hydrocarbon.

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

Redox Ltd Corporate Office Sydney Locked Bag 15 Minto NSW 2566 Australia 2 Swettenham Road Minto NSW 2566 Australia All Deliveries: 4 Holmes Road Minto NSW 2566 Australia

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Australia Adelaide Auckland Brisbane Melbourne Perth London Sydney

UK

New Zealand Malaysia Kuala Lumpur Christchurch USA Los Angeles Hawke's Bay Oakland Mexico Saltillo



Globally Harmonised Syste	m		
Hazard Classification		Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)	
Hazard Categories		Flammable Liquids - Cat	tegory 3
		Aspiration Hazard - Cate	egory 1
Pictograms			
Signal Word		Danger	
Hazard Statements		H226	Flammable liquid and vapour.
		H304	May be fatal if swallowed and enters airways.
Precautionary Statements	Prevention	P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
		P233	Keep container tightly closed.
		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.
		P280	Wear protective gloves/eye protection/face protection.
	Response	P370 + P378	In case of fire: Use carbon dioxide (CO2), dry chemical, foam or water fog for extinction.
		P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
		P331	Do NOT induce vomiting.
		P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	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

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
Naphtha, petroleum, hydrotreated heavy	Unspecified	64742-48-9	100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Immediately call a Poison Centre or doctor/physician. Do NOT induce vomiting. 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.
Еуе	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. If skin irritation occurs, get medical advice/attention. 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. If respiratory symptoms persist, get medical advice/attention. 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. If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. 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 container with water spray until well after fire is out. Avoid getting water inside containers. Large fire: Immediately contact Fire Brigade; consider initial evacuation of areas within 500 m in all directions.
Flammability Conditions	FLAMMABLE LIQUID & VAPOUR: Low flashpoint — Will be easily ignited by heat, sparks or flames at ambient temperatures.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO2), foam or water spray 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 will travel to source of ignition and flash back. Containers may explode when heated. Many liquids are lighter than water. Many vapours are heavier than air and will collect in low or confined areas. Vapours from runoff may create an explosion hazard.
Hazardous Products of Combustion	Fire may produce irritating, toxic and/or corrosive gases, including oxides of Carbon, smoke.
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	Wear self-contained breathing apparatus (SCBA) and chemical protective clothing. SCBA and structural firefighter's uniform may provide limited protection.
Flash Point	54 °C [ASTM D-56]
Lower Explosion Limit	0.7 %
Upper Explosion Limit	5.0 %
Auto Ignition Temperature	359 ℃
Hazchem Code	3Y

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure

Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources - All equipment used in handling the product must be earthed. Do not touch or walk through spilled material. Avoid breathing vapours

	and contact with eyes, skin and clothing.
Clean Up Procedures	Recover by pumping or absorb spill 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. Dike far ahead of liquid spill for later recovery and disposal. Vapour-suppressing foam may be used to control vapours; Water spray may be used to knock down or divert vapour clouds.
Decontamination	No information available.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground. Large spill: Immediately contact Police or Fire Brigade; Consider initial downwind evacuation of areas within at least 300 m.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8). 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 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. Handle in accordance with good industrial hygiene and safety practice. Handle containers with care - Open slowly in order to control possible pressure release. Prevent small spills and leakage to avoid slip hazard. Avoid breathing vapours and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10). Store locked up. - Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.
Container	The type of container used to store the material may affect static accumulation and dissipation. Keep in the original container or suitable containers/packing materials and coatings, i.e. Carbon steel, Stainless steel, Amine epoxy, Epoxy phenolic, Polyamide epoxy, Neoprene, Inorganic zinc coatings. - Unsuitable materials and coatings: Butyl rubber, natural rubber, ethylene-proplyene-diene monomer (EPDM), polystyrene, vinyl coatings.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product.
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: Half-face filter respirator. 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/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded (refer to AS/NZS 1715 & 1716). Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with side shields, if contact is likely. Hand protection: Wear protective gloves. Recommended: Chemical resistant gloves. Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Chemical/oil resistant clothing.
	No information available.

Special Hazards Precaustions

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Always wash thoroughly 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. Practice good housekeeping.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear liquid
Odour	Faint
Colour	Colourless
рН	No Data Available
Vapour Pressure	0.07 kPa (@ 20 °C)
Relative Vapour Density	5.4 Air = 1
Boiling Point	179 - 188 °C
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Negligible solubility in water
Specific Gravity	0.759
Flash Point	54 °C [ASTM D-56]
Auto Ignition Temp	359 ℃
Evaporation Rate	0.07 (n-butyl acetate = 1)
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	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	1.8 cPs (@ 20 °C)
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	This material is a static accumulator.
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	FLAMMABLE LIQUID & VAPOUR: Low flashpoint — Will be easily ignited by heat, sparks or flames at ambient temperatures.

Reactions That Release Gases or Fire/decomposition may produce irritating, toxic and/or corrosive gases, including oxides of Carbon, smoke. **Vapours**

Release of Invisible Flammable Vapours will form explosive mixtures with air. Vapours and Gases

10. STABILITY AND REACTIVITY

General Information	No information available.
Chemical Stability	Material is stable under normal conditions.
Conditions to Avoid	Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong oxidisers.
Hazardous Decomposition Products	Material does not decompose at ambient temperatures. Fire/decomposition may produce irritating, toxic and/or corrosive gases, including oxides of Carbon, smoke.
Hazardous Polymerisation	Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	 Acute toxicity: Minimally toxic (Based on test data for structurally similar materials). Skin corrosion/irritation: Mildly irritating to skin with prolonged exposure (Based on test data for structurally similar materials). Eye damage/irritation: May cause mild, short-lasting discomfort to eyes (Based on test data for structurally similar materials). Respiratory/skin sensitisation: Not expected to be a respiratory or skin sensitiser (Based on test data for structurally similar materials). Germ cell mutagenicity: Not expected to be a germ cell mutagen (Based on test data for structurally similar materials). Germ cell mutagenicity: Not expected to be a germ cell mutagen (Based on test data for structurally similar materials). Carcinogenicity: Not expected to cause cancer (Based on test data for structurally similar materials). STOT (single exposure): Not expected to cause organ damage from a single exposure. Negligible hazard at ambient/normal handling temperatures. Vapour/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death. STOT (repeated exposure): Not expected to cause organ damage from prolonged or repeated exposure (Based on test data for structurally similar materials). STOT (repeated exposure): Not expected to cause organ damage from prolonged or repeated exposure (Based on test data for structurally similar materials). STOT (repeated exposure): Not expected to cause organ damage from prolonged or repeated exposure (Based on test data for structurally similar materials). STOT (repeated exposure): Not expected to cause organ damage from prolonged or repeated exposure (Based on test data for structurally similar materials). STOT (repeated exposure): Not expected to cause organ damage from prolonged or repeated exp
Acute	
Ingestion	Acute toxicity (Oral): - LD50, Rat: >5,000 mg/kg [Test(s) equivalent to OECD 401; Supplier's SDS].
Other	Acute toxicity (Dermal): - LD50, Rabbit: >5,000 mg/kg [Test(s) equivalent to OECD 402; Supplier's SDS]
Inhalation	Acute toxicity (Inhalation): - LC50, Rat: >5,000 mg/m3 (8 h) vapour [Test(s) equivalent to OECD 403; Supplier's SDS]
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Not expected to be harmful to aquatic organisms. Not expected to demonstrate chronic toxicity to aquatic organisms.
Persistence/Degradability	Expected to be inherently biodegradable. Transformation due to hydrolysis/photolysis not expected to be significant. Expected to degrade rapidly in air.
Mobility	Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.
Environmental Fate	Prevent entry into drains and waterways.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.
Special Precautions for Land Fill	Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. Do NOT pressurise, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity or other sources of ignition - They may explode and cause injury or death.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code	
Proper Shipping Name	HYDROCARBONS, LIQUID, N.O.S (Naphtha (petroleum), hydrotreated heavy)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	14 Liquids - Highly Flammable
UN Number	3295
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available
Land Transport (Malaysia) ADR Code	
Proper Shipping Name	HYDROCARBONS, LIQUID, N.O.S (Naphtha (petroleum), hydrotreated heavy)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	14 Liquids - Highly Flammable
UN Number	3295
Hazchem	3Y
Pack Group	111
Special Provision	No Data Available

Land Transport (New Zealand) NZS5433

Proper Shipping Name	HYDROCARBONS, LIQUID, N.O.S (Naphtha (petroleum), hydrotreated heavy)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	14 Liquids - Highly Flammable
UN Number	3295
Hazchem	3Y
Pack Group	Ш
Special Provision	No Data Available

Land Transport (United States of America) US DOT

Proper Shipping Name	HYDROCARBONS, LIQUID, N.O.S (Naphtha (petroleum), hydrotreated heavy)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
ERG	128 Flammable Liquids (Non-Polar / Water-Immiscible)
UN Number	3295
Hazchem	3Y
Pack Group	Ш
Special Provision	No Data Available
Sea Transport	
IMDG Code	
Proper Shipping Name	HYDROCARBONS, LIQUID, N.O.S (Naphtha (petroleum), hydrotreated heavy)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	3295
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available
EMS	F-E, S-D
Marine Pollutant	No
Air Transport IATA DGR	
Proper Shipping Name	HYDROCARBONS, LIQUID, N.O.S (Naphtha (petroleum), hydrotreated heavy)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	3295
Hazchem	3Y
Pack Group	Ш
Special Provision	No Data Available

National Transport Commission (Australia)

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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)	Schedule 5

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	Solvents Flammable Group Standard 2020 HSR002650

National/Regional Inventories

Australia (AIIC)	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	ISOPAR3070, ISOPAR3072, ISOPAR3080, ISOPAR3081, ISOPAR3082, ISOPAR3229, ISOPAR3230, ISOPAR3235, ISOPAR4000, ISOPAR4001, ISOPAR4002, ISOPAR4003, ISOPAR4004, ISOPAR4005, ISOPAR4006, ISOPAR4007, ISOPAR4100, ISOPAR4101, ISOPAR4200, ISOPAR4201, ISOPAR7600, ISOPAR7900
Revision	3

28 Mar 2019 < 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/I 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 inH20 Inch of Water K Kelvin kg Kilogram kg/m³ Kilograms per Cubic Metre Ib 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. Itr 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 mmH20 Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable **NIOSH** National Institute for Occupational Safety and Health NOHSC National Occupational Heath 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

Revision Date Key/Legend