



SAFETY DATA SHEET DICHLOROPHEN REVISION 4, DATE 05 DEC 20

1. IDENTIFICATION

Product Name	Dichlorophen
Other Names	2,2-dihydroxy-5,5-dichlorodiphenylmethane; Dichlorophene - Technical
Uses	Used in cotton and woollen textiles, leather and paper; in articles used as food packaging; cement additive in the construction industry; use in cleaning and washing agents.
Chemical Family	No Data Available
Chemical Formula	C ₁₃ H ₁₀ Cl ₂ O ₂
Chemical Name	Phenol, 2,2'-methylenebis[4-chloro-
Product Description	No Data Available

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 6

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

Phone +61 2 9733 3000
Fax +61 2 9733 3111
E-mail sydney@redox.com
Web www.redox.com
ABN 92 000 762 345



Australia
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Melbourne
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New Zealand
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Christchurch
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London

Malaysia
Kuala Lumpur
USA
Los Angeles
Oakland
Mexico
Saltillo



Globally Harmonised System

Hazard Classification		Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)	
Hazard Categories		Acute Toxicity (Oral) - Category 4 Serious Eye Damage/Irritation - Category 2A Acute Hazard To The Aquatic Environment - Category 1 Long-term Hazard To The Aquatic Environment - Category 1	
Pictograms		 	
Signal Word		Warning	
Hazard Statements		H302	Harmful if swallowed.
		H319	Causes serious eye irritation.
		H410	Very toxic to aquatic life with long lasting effects.
Precautionary Statements	Prevention	P273	Avoid release to the environment.
		P270	Do not eat, drink or smoke when using this product.
		P280	Wear eye protection/face protection.
		P264	Wash hands thoroughly after handling.
	Response	P391	Collect spillage.
		P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
		P330	Rinse mouth.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Disposal	P337 + P313	If eye irritation persists: Get medical advice.
		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)
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Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications	Environmental Hazards	9.3C	Substances that are harmful to terrestrial vertebrates
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Dichlorophen	C13H10Cl2O2	97-23-4	<=100 %

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

Swallowed	IF SWALLOWED: Rinse mouth, then give plenty of water to drink. Do not induce vomiting. Call a Poison Centre or doctor/physician for advice. 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: Remove contaminated clothing and shoes. Immediately flush skin with running water for at least 15 minutes. 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. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically. Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	Move containers from fire area if you can do it without risk. Cool containers with water spray until well after fire is out. Dike fire-control water for later disposal.
Flammability Conditions	May burn but does not ignite readily.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction. Do not scatter spilled material with high-pressure water streams.
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.
Hazardous Products of Combustion	Fire may produce irritating, corrosive and/or toxic gases, including Carbon oxides, Hydrogen chloride (HCl).
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flash Point	207 °C
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition sources (if dust clouds can occur). Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
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Clean Up Procedures	Sweep up and shovel. Keep in suitable, closed containers for disposal (see SECTION 13). *Pick up and arrange disposal without creating dust.
Containment	Stop leak if you can do it without risk. Prevent dust cloud. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	Flush contaminated area with plenty of water.
Environmental Precautionary Measures	Discharge into the environment must be avoided. Spillages and decontamination runoff should be prevented from entering drains and watercourses.
Evacuation Criteria	Spill or leak area should be isolated immediately. Evacuate personnel to safe areas. Keep unauthorised personnel away. Keep upwind and to higher ground.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8).

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. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Storage	Store (between 2 and 8 °C) 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 foodstuffs and incompatible materials (see SECTION 10).
Container	Keep in the original container.

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).
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.
Personal Protection Equipment	- Respiratory protection: Wear respiratory protection in case of inadequate ventilation or if inhalation of contaminants is possible. Recommended: Particulate filter respirator. Ensure all respiratory protective equipment is suitable for its intended use (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Tight-fitting safety glasses or Chemical splash goggles. - Hand protection: Handle with gloves. Recommended: Wear chemical-resistant protective gloves. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Long-sleeved protective coveralls and safety footwear.
Special Hazards Precautions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Powder
Odour	Slightly phenolic
Colour	Off-white to slightly tan
pH	No Data Available
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	418.7 °C
Melting Point	171 - 174 °C
Freezing Point	No Data Available
Solubility	Practically insoluble in water (30 mg/L) - Almost insoluble in DMSO Methanol
Specific Gravity	No Data Available
Flash Point	207 °C
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	0.3 - 0.5 g/cm ³
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	269.13
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	No information available.
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.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating, corrosive and/or toxic gases, including Carbon oxides, Hydrogen chloride (HCl).
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	No information available.
Chemical Stability	Stable under the prescribed storage conditions.
Conditions to Avoid	Avoid generating dust. Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong oxidising agents, strong alkalis.
Hazardous Decomposition Products	Combustion/thermal decomposition may produce irritating, toxic, and/or corrosive fumes, including oxides of Carbon, Hydrogen chloride (HCl).
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none"> - Acute toxicity: Harmful if swallowed. May cause discomfort, stomach pain, nausea, vomiting. - Skin corrosion/irritation: Based on available data the classification criteria are not met. Prolonged contact may cause dryness of the skin. - Eye damage/irritation: Causes serious eye irritation. - Respiratory/skin sensitisation: Based on available data the classification criteria are not met. - Germ cell mutagenicity: Based on available data the classification criteria are not met. - Carcinogenicity: Based on available data the classification criteria are not met. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. - Reproductive toxicity: Based on available data the classification criteria are not met. - STOT (single exposure): Not classified as a specific target organ toxicant after a single exposure. Dust may irritate the eyes and the respiratory system. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. - STOT (repeated exposure): Not classified as a specific target organ toxicant after repeated exposure. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. - Aspiration toxicity: Not relevant (solid).
Acute	
Ingestion	Acute toxicity (Oral): - LD50, Rat: 1,506 mg/kg [Supplier's SDS].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Acute aquatic toxicity: - LC50, Fish (Pimephales promelas (Fat-head minnow)): 0.31 mg/l (96 h). *M-factor (Acute): 1 Chronic aquatic toxicity: - NOEC: 0.01<NOEC<=0.1 *M-factor (Chronic): 1
Persistence/Degradability	Non-rapidly degradable.
Mobility	No information available.
Environmental Fate	Very toxic to aquatic life with long lasting effects - Avoid release to the environment.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of waste to licensed waste disposal site and in accordance with local/regional/national regulations. *Offer surplus and non-recyclable solutions to a licensed disposal company.
Special Precautions for Land Fill	This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered.

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

ADG Code

Proper Shipping Name	Dichlorophen
Class	No Data Available
Subsidiary Risk(s)	No Data Available
EPG	47 Low To Moderate Hazard Substances
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	AU01
Comments	Not regulated as DG when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg(L) or IBCs.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dichlorophen)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
EPG	47 Low To Moderate Hazard Substances
UN Number	3077
Hazchem	2Z
Pack Group	III
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dichlorophen)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
EPG	47 Low To Moderate Hazard Substances
UN Number	3077
Hazchem	2Z
Pack Group	III
Special Provision	No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dichlorophen)
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Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
ERG	171 Substances (Low to Moderate Hazard)
UN Number	3077
Hazchem	2Z
Pack Group	III
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dichlorophen)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
UN Number	3077
Hazchem	2Z
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-F
Marine Pollutant	Yes

Air Transport

IATA DGR

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dichlorophen)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
UN Number	3077
Hazchem	2Z
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	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	DICHLOROPHEN is listed in Schedule 6 of the SUSMP, except for human therapeutic use (Schedule 4) or for the treatment of animals (Schedule 5); or in fabrics.
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Poisons Schedule (Aust)	Schedule 6
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Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	Additives Process Chemicals and Raw Materials Subsidiary Hazard Group Standard 2020 HSR002503 *HSR003408 (Revoked)
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National/Regional Inventories

Australia (AIIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	202-567-1
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	DICHLM1100, DICHLM1200, DICHLO1000, DICHLO1004, DICHLO1100, DICHLO1111, DICHLO1999, DICHLO3050, DICHLO4500
Revision	4
Revision Date	05 Dec 2020
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>

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