

ALFAAA12065

2,4-Dichlorophenol

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

产品说明: 2,4-二氯苯酚, 99%
Product Description: 2,4-Dichlorophenol

Cat No. : A12065
Synonyms 2,4-DCP.; 2,4-Dichlorohydroxybenzene
CAS No 120-83-2
Molecular Formula C6 H4 Cl2 O

Supplier Avocado Research Chemicals Ltd.
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CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

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Recommended Use Laboratory chemicals.
Uses advised against No Information available

SECTION 2. HAZARD IDENTIFICATION

Physical State
Solid

Appearance
Beige

Odor
aromatic

Emergency Overview

Toxic in contact with skin. Causes severe skin burns and eye damage. Toxic to aquatic life with long lasting effects. Harmful if swallowed. May form combustible dust concentrations in air.

Classification of the substance or mixture

Acute Oral Toxicity	Category 4
Acute Dermal Toxicity	Category 3
Skin Corrosion/Irritation	Category 1 B
Serious Eye Damage/Eye Irritation	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

Label Elements

2,4-Dichlorophenol



Signal Word

Danger

Hazard Statements

H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H411 - Toxic to aquatic life with long lasting effects
H302 - Harmful if swallowed

Precautionary Statements

Prevention

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response

P304 + P340 - IF INHALED: Remove person 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
P310 - Immediately call a POISON CENTER or doctor
P330 - Rinse mouth
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P331 - Do NOT induce vomiting
P362 + P364 - Take off contaminated clothing and wash it before reuse

Storage

P405 - Store locked up
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Physical and Chemical Hazards

None identified. May form combustible dust concentrations in air.

Health Hazards

Toxic in contact with skin. Corrosive. Causes skin and eye burns. Causes serious eye damage. Harmful if swallowed.

Environmental hazards

Toxic to aquatic life with long lasting effects. . Will likely be mobile in the environment due to its water solubility. The product is water soluble, and may spread in water systems.

May form explosible dust-air mixture if dispersed. Toxic to terrestrial vertebrates. This product does not contain any known or suspected endocrine disruptors.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
2,4-Dichlorophenol	120-83-2	99

SECTION 4. FIRST AID MEASURES

Eye Contact

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

Inhalation

Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Immediate medical attention is required.

Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. If possible drink milk afterwards.

Most important symptoms and effects

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Notes to Physician

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

Dust can form an explosive mixture with air. Fine dust dispersed in air may ignite.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Ensure adequate ventilation.

Environmental Precautions

Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal.

Refer to protective measures listed in Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE**Handling**

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Wash

2,4-Dichlorophenol

thoroughly after handling.

Storage

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

Specific Use(s)

Use in laboratories

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters****Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Exposure Controls**Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment**Eye Protection**

Goggles (European standard - EN 166)

Hand Protection

Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	See manufacturers	-	EN 374	(minimum requirement)
Neoprene	recommendations			
Natural rubber				
PVC				

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: Particulates filter conforming to EN 143

Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Recommended half mask:- Particle filtering: EN149:2001
When RPE is used a face piece Fit Test should be conducted

2,4-Dichlorophenol

Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	Prevent product from entering drains. Do not allow material to contaminate ground water system.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Beige	
Physical State	Solid	
Odor	aromatic	
Odor Threshold	No data available	
pH	No information available	
Melting Point/Range	41 - 44 °C / 105.8 - 111.2 °F	
Softening Point	No data available	
Boiling Point/Range	209 - 210 °C / 408.2 - 410 °F	@ 760 mmHg
Flash Point	113 °C / 235.4 °F	Method - No information available
Evaporation Rate	Not applicable	Solid
Flammability (solid,gas)	No information available	
Explosion Limits	No data available	
Vapor Pressure	18.5 mbar @ 100 °C	
Vapor Density	Not applicable	Solid
Specific Gravity / Density	1.382	
Bulk Density	No data available	
Water Solubility	4.5 g/l in water (20°C)	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
2,4-Dichlorophenol	3.08	
Autoignition Temperature	653 °C / 1207.4 °F	
Decomposition Temperature	No data available	
Viscosity	Not applicable	Solid
Explosive Properties	No information available	
Oxidizing Properties	No information available	
Molecular Formula	C6 H4 Cl2 O	
Molecular Weight	163	

SECTION 10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Hazardous Reactions	No information available.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	Keep away from open flames, hot surfaces and sources of ignition. Excess heat. Incompatible products.
Materials to avoid	Acids. Acid anhydrides. Acid chlorides.

Hazardous Decomposition Products Carbon monoxide (CO). Carbon dioxide (CO₂). Chlorine. Hydrogen chloride gas.

SECTION 11. TOXICOLOGICAL INFORMATION

Product Information

SAFETY DATA SHEET**2,4-Dichlorophenol****(a) acute toxicity;**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2,4-Dichlorophenol	LD50 = 2830 mg/kg (Rat)	LD50 = 780 mg/kg (Rat)	

(b) skin corrosion/irritation; Category 1 B**(c) serious eye damage/irritation;** No data available**(d) respiratory or skin sensitization;**

Respiratory No data available
Skin No data available

(e) germ cell mutagenicity; No data available**(f) carcinogenicity;** No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	EU	UK	Germany	IARC
2,4-Dichlorophenol				Group 2B

(g) reproductive toxicity; No data available**(h) STOT-single exposure;** No data available**(i) STOT-repeated exposure;** No data available**Target Organs** No information available.**(j) aspiration hazard;** Not applicable
Solid

Symptoms / effects, both acute and delayed Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

The product contains following substances which are hazardous for the environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
2,4-Dichlorophenol	LC50: = 5.5 mg/L, 96h semi-static (Poecilia reticulata) LC50: = 3.9 mg/L, 96h static (Brachydanio rerio) LC50: = 2.6 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: 2.182 - 3.108 mg/L, 96h semi-static (Oncorhynchus mykiss) LC50: 4.5 - 8.3 mg/L, 96h static (Oryzias latipes)	EC50: 1.2 - 1.7 mg/L, 48h (Daphnia magna)	EC50: = 14 mg/L, 96h static (Pseudokirchneriella subcapitata)	EC50 = 1.10 mg/L 5 min EC50 = 1.18 mg/L 15 min EC50 = 1.24 mg/L 30 min EC50 = 15 mg/L 60 h EC50 = 75 mg/L 30 min

SAFETY DATA SHEET**2,4-Dichlorophenol**

	LC50: 1.6 - 2.6 mg/L, 96h static (Lepomis macrochirus) LC50: 7.4 - 8.8 mg/L, 96h flow-through (Pimephales promelas)			
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Persistence and Degradability**Persistence**

Persistence is unlikely.

**Degradation in sewage
treatment plant**

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulative Potential

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
2,4-Dichlorophenol	3.08	7.1 - 69 dimensionless

Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

Endocrine Disruptor Information

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
2,4-Dichlorophenol	Group II Chemical		

Persistent Organic Pollutant

This product does not contain any known or suspected substance.

Ozone Depletion Potential

This product does not contain any known or suspected substance.

SECTION 13. DISPOSAL CONSIDERATIONS**Waste from Residues/Unused
Products**

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Do not let this chemical enter the environment.

SECTION 14. TRANSPORT INFORMATION**Road and Rail Transport****UN-No**

UN2928

Proper Shipping Name

Toxic solid, corrosive, organic, n.o.s.

Technical Shipping Name

2,4-Dichlorophenol

Hazard Class

6.1

Subsidiary Hazard Class

8

Packing Group

II

IMDG/IMO**UN-No**

UN2928

Proper Shipping Name

Toxic solid, corrosive, organic, n.o.s.

Technical Shipping Name

2,4-Dichlorophenol

Hazard Class

6.1

Subsidiary Hazard Class

8

Packing Group

II

2,4-Dichlorophenol

IATA

UN-No UN2928
Proper Shipping Name TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S.*
Technical Shipping Name 2,4-Dichlorophenol
Hazard Class 6.1
Subsidiary Hazard Class 8
Packing Group II

Special Precautions for User No special precautions required

SECTION 15. REGULATORY INFORMATION**International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	The Inventory of Hazardous Chemicals (2015 Edition)	List of dangerous goods GB 12268 - 2012	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
2,4-Dichlorophenol	X	-	X	X	204-429-6	X	X	X	X	X	X	KE-10167

National Regulations

Component	Toxic Chemical Substances Control Act
2,4-Dichlorophenol 120-83-2 (99)	Class IV (1 wt%)

SECTION 16. OTHER INFORMATION

Prepared By Health, Safety and Environmental Department
Revision Date 27-Apr-2024
Revision Summary New emergency telephone response service provider.

Training Advice

Chemical incident response training.

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

2,4-Dichlorophenol

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Disclaimer

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End of Safety Data Sheet