

ALFAAL04599

## 1,5-Dihydroxynaphthalene

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

产品说明:  
Product Description: 1,5-二羟基萘  
1,5-Dihydroxynaphthalene

Cat No. : L04599  
Synonyms 1,5-Naphthalenediol  
CAS No 83-56-7  
Molecular Formula C10H8O2

Supplier Avocado Research Chemicals Ltd.  
(Part of Thermo Fisher Scientific)  
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Recommended Use Laboratory chemicals.  
Uses advised against No Information available

### SECTION 2. HAZARD IDENTIFICATION

**Physical State**  
Powder Solid

**Appearance**  
Brown

**Odor**  
Odorless

#### Emergency Overview

Harmful if swallowed. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

#### Classification of the substance or mixture

|                                   |            |
|-----------------------------------|------------|
| Acute Oral Toxicity               | Category 4 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Skin Sensitization                | Category 1 |
| Chronic aquatic toxicity          | Category 2 |

#### Label Elements



## 1,5-Dihydroxynaphthalene

## Signal Word

## Warning

## Hazard Statements

H302 - Harmful if swallowed  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H411 - Toxic to aquatic life with long lasting effects

## Precautionary Statements

## Prevention

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P270 - Do not eat, drink or smoke when using this product  
P272 - Contaminated work clothing should not be allowed out of the workplace

## Response

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
P330 - Rinse mouth  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
P337 + P313 - If eye irritation persists: Get medical advice/attention  
P362 + P364 - Take off contaminated clothing and wash it before reuse

## Storage

P403 - Store in a well-ventilated place

## Disposal

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

## Physical and Chemical Hazards

None identified.

## Health Hazards

Harmful if swallowed. May cause an allergic skin reaction. Causes serious eye irritation.

## Environmental hazards

Toxic to aquatic life with long lasting effects.

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 % |
|---------------------|---------|----------|
| 1,5-Naphthalenediol | 83-56-7 | >95      |

## SECTION 4. FIRST AID MEASURES

## Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

## Skin Contact

Wash off immediately with plenty of water for at least 15 minutes.

## Inhalation

Remove to fresh air.

## Ingestion

Clean mouth with water and drink afterwards plenty of water.

## Most important symptoms and effects

May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

## 1,5-Dihydroxynaphthalene

**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**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

**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**

Use personal protective equipment as required. Ensure adequate ventilation. Avoid contact with skin and eyes. Keep people away from and upwind of spill/leak. Avoid dust formation.

**Environmental Precautions**

Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up**

Avoid dust formation. 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**

Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid dust formation.

**Storage**

Keep containers tightly closed in a cool, well-ventilated place.

**Specific Use(s)**

Use in laboratories

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

## 1,5-Dihydroxynaphthalene

**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 that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. 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        |
|----------------|-------------------|-----------------|-------------|-----------------------|
| Natural rubber | See manufacturers | -               | EN 374      | (minimum requirement) |
| Nitrile rubber | recommendations   |                 |             |                       |
| Neoprene       |                   |                 |             |                       |
| 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 compatability, 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** Long sleeved clothing

**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

**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** Brown  
**Physical State** Powder Solid

**Odor** Odorless  
**Odor Threshold** No data available  
**pH** 6 @ 20°C

0.5 g/L aq.sol

**SAFETY DATA SHEET****1,5-Dihydroxynaphthalene**

|  |                                 |  |
|--|---------------------------------|--|
| <b>Melting Point/Range</b>                     | 259 - 261 °C / 498.2 - 501.8 °F |  |
| <b>Softening Point</b>                         | No data available               |  |
| <b>Boiling Point/Range</b>                     | No information available        |  |
| <b>Flash Point</b>                             | 252 °C / 485.6 °F               | <b>Method -</b> No information available |
| <b>Evaporation Rate</b>                        | Not applicable                  | Solid                                    |
| <b>Flammability (solid,gas)</b>                | No information available        |  |
| <b>Explosion Limits</b>                        | No data available               |  |
| <b>Vapor Pressure</b>                          | No data available               |  |
| <b>Vapor Density</b>                           | Not applicable                  | Solid                                    |
| <b>Specific Gravity / Density</b>              | No data available               |  |
| <b>Bulk Density</b>                            | No data available               |  |
| <b>Water Solubility</b>                        | No information available        |  |
| <b>Solubility in other solvents</b>            | No information available        |  |
| <b>Partition Coefficient (n-octanol/water)</b> |                                 |  |
| <b>Component</b>                               | <b>log Pow</b>                  |  |
| 1,5-Naphthalenediol                            | 1.94                            |  |
| <b>Autoignition Temperature</b>                | >250 °C / >482 °F               |  |
| <b>Decomposition Temperature</b>               | No data available               |  |
| <b>Viscosity</b>                               | Not applicable                  | Solid                                    |
| <b>Explosive Properties</b>                    | No information available        |  |
| <b>Oxidizing Properties</b>                    | No information available        |  |
| <b>Molecular Formula</b>                       | C10H8O2                         |  |
| <b>Molecular Weight</b>                        | 160.17                          |  |

**SECTION 10. STABILITY AND REACTIVITY**

|                                 |  |
|---------------------------------|--|
| <b>Stability</b>                | No information available.                  |
| <b>Hazardous Reactions</b>      | No information available.                  |
| <b>Hazardous Polymerization</b> | No information available.                  |
| <b>Conditions to Avoid</b>      | Incompatible products. Protect from light. |
| <b>Materials to avoid</b>       | Strong oxidizing agents. Strong bases.     |

**Hazardous Decomposition Products** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**SECTION 11. TOXICOLOGICAL INFORMATION****Product Information****(a) acute toxicity;**

| Component           | LD50 Oral       | LD50 Dermal | LC50 Inhalation |
|---------------------|-----------------|-------------|-----------------|
| 1,5-Naphthalenediol | 660 mg/kg (Rat) |             |                 |

**(b) skin corrosion/irritation;** No data available

**(c) serious eye damage/irritation;** Category 2

**(d) respiratory or skin sensitization;**

**Respiratory** No data available  
**Skin** Category 1

May cause sensitization by skin contact

## 1,5-Dihydroxynaphthalene

|  |   |
|--|---|
| (e) germ cell mutagenicity;                | No data available   |
| (f) carcinogenicity;                       | No data available<br>There are no known carcinogenic chemicals in this product  |
| (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<br>Solid   |
| Other Adverse Effects                      | The toxicological properties have not been fully investigated.  |
| Symptoms / effects, both acute and delayed | Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing |

## SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

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

| Component           | Freshwater Fish                      | Water Flea | Freshwater Algae | Microtox |
|---------------------|--------------------------------------|------------|------------------|----------|
| 1,5-Naphthalenediol | LC0: 2 mg/l/48 H<br>(Leuciscus ides) |            |                  |          |

Persistence and Degradability

No information available

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) |
|---------------------|---------|-------------------------------|
| 1,5-Naphthalenediol | 1.94    | No data available             |

Mobility in soil

No information available

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

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. |
|-------------------------------------|--|

## SAFETY DATA SHEET

## 1,5-Dihydroxynaphthalene

|                        |  |
|------------------------|--|
| 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. Do not let this chemical enter the environment. |

## SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport

|                         |   |
|-------------------------|---|
| UN-No                   | UN3077  |
| Proper Shipping Name    | Environmentally hazardous substances, solid, n.o.s. |
| Technical Shipping Name | 1,5-Naphthalenediol                                 |
| Hazard Class            | 9   |
| Packing Group           | III   |

IMDG/IMO

|                         |   |
|-------------------------|---|
| UN-No                   | UN3077  |
| Proper Shipping Name    | Environmentally hazardous substances, solid, n.o.s. |
| Technical Shipping Name | 1,5-Naphthalenediol                                 |
| Hazard Class            | 9   |
| Packing Group           | III   |

IATA

|                         |   |
|-------------------------|---|
| UN-No                   | UN3077  |
| Proper Shipping Name    | Environmentally hazardous substances, solid, n.o.s. |
| Technical Shipping Name | 1,5-Naphthalenediol                                 |
| Hazard Class            | 9   |
| Packing Group           | III   |

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        |
|---------------------|---|---|------|-------|-----------|------|-----|-------|------|------|------|-------------|
| 1,5-Naphthalenediol | -   | -                                       | X    | X     | 201-487-4 | X    | X   | X     | X    | X    | X    | 2015-3-6385 |

## National Regulations

## SECTION 16. OTHER INFORMATION

|               |   |
|---------------|---|
| Prepared By   | Health, Safety and Environmental Department |
| Creation Date | 26-Sep-2013                                 |
| Revision Date | 25-Apr-2024                                 |

## 1,5-Dihydroxynaphthalene

**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**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**