

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 04 Jul 2023

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

1.1. Product name:

Chlorothalonil-4-hydroxy

1.1. Catalog No.:

677132

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Regulation (EC) No 1272/2008
Acute toxicity - Oral Category 3 - (H301)
Acute toxicity - Inhalation (Dusts/Mists) Category 2 - (H330)
Serious eye damage/eye irritation Category 1 - (H318)
Skin sensitisation Category 1 - (H317)
Carcinogenicity Category 2 - (H351)
Specific target organ toxicity -- single exposure Category 3 - (H335)
Acute aquatic toxicity Category 1 - (H400)
Chronic aquatic toxicity Category 1 - (H410)

2.2. Label elements

2.2.1. Pictogram



2.2.2.

Signal word

Danger

Hazard statements

H301 - Toxic if swallowed

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H330 - Fatal if inhaled

H335 - May cause respiratory irritation

H351 - Suspected of causing cancer

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P260 - Do not breathe dust/fume/gas/mist/vapours/spray

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

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

P391 - Collect spillage

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

2.3. Other hazards

No information available.

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

This product does not contain any known or suspected endocrine disruptors.

Chemical name: Chlorothalonil-4-hydroxy

EU - REACH (1907/2006) - Article 59(1) - Candidate L is not of Substances of Very High Concern (SVHC) for Authorisation:

-

EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances: -

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical name: Chlorothalonil-4-hydroxy 28343-61-5

Weight-%: 100

REACH registration number: -

EC No (EU Index No): 881-469-6

Classification according to Regulation (EC) No. 1272/2008 [CLP]: Acute Tox. 2 (H330)

Acute Tox. 3 (H301)

Eye Dam. 1 (H318)

Skin Sens. 1 (H317)

Carc. 2 (H351)

STOT SE 3 (H335)

Aquatic Acute 1 (H400)

Aquatic Chronic 1 (H410)

Specific concentration limit (SCL)

M-Factor

M-Factor (long-term)

Acute Toxicity Estimate

No information available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

3.1.1. Formula

C₈HCl₃N₂O

3.1.2. Molecular Weight (g/mol)

247.47

3.1.3. CAS-No.

28343-61-5

4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not breathe dust.

Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. IF exposed or concerned: Get medical advice/attention.

Eye contact Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor or poison control centre immediately.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation. Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors May cause sensitisation in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

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

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

Product is or contains a sensitiser. May cause sensitisation by skin contact.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.
Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid generation of dust. Do not breathe dust.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Avoid breathing vapours or mists.

General hygiene considerations Do not breathe dust. Take off contaminated clothing and wash it before reuse.

Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep out of the reach of children. Please refer to the manufacturers certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Personal protective equipment

Eye/face protection Tight sealing safety goggles. Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/E E C and the related standard EN374.

Skin and body protection Wear suitable protective clothing.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygiene considerations Do not breathe dust. Take off contaminated clothing and wash it before reuse.

Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of

equipment, work area and clothing is recommended. Wash hands before breaks and

immediately after handling the product. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Solid

Appearance Solid

Colour off-white

Odour No information available.

Odour threshold No information available

Property:

Melting point / freezing point 260 - 263 °C None known

Initial boiling point and boiling range No data available None known

Flammability No data available None known

Flammability Limit in Air None known

Upper flammability or explosive limits No data available

Lower flammability or explosive limits No data available

Flash point No data available None known

Autoignition temperature No data available None known

Decomposition temperature None known

pH No data available None known

pH (as aqueous solution) No data available No information available

Kinematic viscosity No data available None known

Dynamic viscosity No data available None known

Water solubility No data available None known

Solubility(ies) No data available None known

Partition coefficient 2.9 None known

Vapour pressure No data available None known

Relative density 1.7 None known

Bulk density No data available

Liquid Density No data available

Relative vapour density No data available

Particle characteristics None known

Particle Size No information available

Particle Size Distribution No information available

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

10. STABILITY AND REACTIVITY

- 10.1. Reactivity
Reactivity No information available.
- 10.2. Chemical stability
Stability Stable under normal conditions.
Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.
- 10.3. Possibility of hazardous reactions
Possibility of hazardous reactions None under normal processing.
- 10.4. Conditions to avoid
Conditions to avoid Excessive heat.
- 10.5. Incompatible materials
Incompatible materials Strong acids. Strong bases. Strong oxidising agents.
Hazardous decomposition products None known based on information supplied

11. TOXICOLOGICAL INFORMATION

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Information on likely routes of exposure
Product Information
Inhalation Specific test data for the substance or mixture is not available. Fatal if inhaled. (based on components). May cause irritation of respiratory tract.
Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage.
May cause irreversible damage to eyes.
Skin contact Specific test data for the substance or mixture is not available. May cause irritation. May cause sensitisation by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).
Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Toxic if swallowed. (based on components).
Symptoms related to the physical, chemical and toxicological characteristics
Symptoms Coughing and/ or wheezing. Difficulty in breathing. Redness. Burning. May cause blindness. Itching. Rashes. Hives.
Numerical measures of toxicity
Acute toxicity
Component Information
Chemical name: Chlorothalonil-4-hydroxy
Oral LD50: = 178 mg/kg (Mouse)
Dermal LD50:
Inhalation LC50:
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Skin corrosion/irritation May cause skin irritation.
Serious eye damage/eye irritation Classification based on data available for ingredients. Causes burns. Causes serious eye damage.
Respiratory or skin sensitisation May cause an allergic skin reaction.
Germ cell mutagenicity No information available.
Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.
Reproductive toxicity No information available.
STOT - single exposure May cause respiratory irritation.
STOT - repeated exposure No information available.
Aspiration hazard No information available.
- 11.2. Information on other hazards
11.2.1. Endocrine disrupting properties
Endocrine disrupting properties No information available.
- 11.2.2. Other information
Other adverse effects No information available.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name: Chlorothalonil-4-hydroxy

Partition coefficient: 2.9

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

IATA

14.1 UN number or ID number UN2811

14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Chlorothalonil-4-hydroxy)

14.3 Transport hazard class(es) 6.1

14.4 Packing group II

Description UN2811, Toxic solid, organic, n.o.s. (Chlorothalonil-4-hydroxy), 6.1, II

14.5 Environmental hazards Yes

14.6 Special precautions for user

Special Provisions A3, A5

ERG Code 6L

IMDG

14.1 UN number or ID number UN2811

14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Chlorothalonil-4-hydroxy)

14.3 Transport hazard class(es) 6.1

14.4 Packing group II

Description UN2811, Toxic solid, organic, n.o.s., 6.1, II, Marine pollutant

14.5 Marine pollutant P

Environmental hazards Yes

14.6 Special precautions for user

Special Provisions 274

EmS-No F-A, S-A No information available

14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number UN2811

14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Chlorothalonil-4-hydroxy)

14.3 Transport hazard class(es) 6.1

14.4 Packing group II

Description UN2811, Toxic solid, organic, n.o.s. (Chlorothalonil-4-hydroxy), 6.1, II, Environmentally Hazardous

14.5 Environmental hazards Yes

14.6 Special precautions for user

Special Provisions 274, 614

Classification code T2

ADR

14.1 UN number or ID number UN2811

14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Chlorothalonil-4-hydroxy)

14.3 Transport hazard class(es) 6.1

14.4 Packing group II

Description UN2811, Toxic solid, organic, n.o.s. (Chlorothalonil-4-hydroxy), 6.1, II, (D/E),

Environmentally Hazardous

14.5 Environmental hazards Yes

14.6 Special precautions for user

Special Provisions 274, 614

Classification code T2

Tunnel restriction code (D/E)

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Water hazard class (WGK) strongly hazardous to water (WGK 3)

Poland SDS created according to the following Polish regulation: Act of February 25, 2011 on

chemical substances and their mixtures (Journal of Laws of 2018, item 143, as

amended). Regulation (EC) No 1907/2006 of the European Parliament and of the

Council on the Registration, Evaluation, Authorization and Restriction of Chemicals

(REACH), establishing the European Chemicals Agency (EC) as amended. Regulation

(EC) No 1272/2008 of the European Parliament and of the Council of 16 December

2008 on classification, labeling and packaging of substances and mixtures, as

amended. Regulation of the Minister of Health of 10 August 2012 on the criteria and

method of classifying chemical substances and their mixtures (Journal of Laws of

2012, item 1018). Regulation of the Minister of Health of 20 April 2012 on labeling

packaging of hazardous substances and mixtures and some mixtures (Journal of Laws of 2012, item 445). Regulation of

the Minister of Family, Labor and Social Policy

of 12 June 2018 on the maximum allowable concentrations and intensities of factors

harmful to health in the work environment (Journal of Laws of 2018, item 1286).

Announcement of the Minister of Economy, Labor and Social Policy of August 28,

2003 on the publication of the unified text of the Ordinance of the Minister of Labor

and Social Policy on general health and safety at work regulations (Journal of Laws

of 2003, No. 169, item 1650). Regulation of the Minister of Health of 30 December

2004 on occupational safety and health related to the presence of chemical agents in

the workplace (Journal of Laws of 2005, No. 11, item 86). Act of December 14, 2012 on

waste (Journal of Laws of 2013, item 21) Regulation of the Minister of Health of

December 30, 2004 on occupational health and safety related to the presence of

chemical agents in the workplace (Journal U. of 2005, No. 11, item 86). Waste Act of

December 14, 2012 (Journal of Laws of 2013, item 21). Act of 13 June 2013 on the

management of packaging and packaging waste, Journal of Laws 2013, item 888).

Government statement of September 24, 2002 - European Agreement on the

International Carriage of Dangerous Goods by Road (ADR) (Journal of Laws No. 194,

item 1629 and Journal of Laws of 2003, No. 207, item 2013 and 2014).

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical

agents

at work.

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This

product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

H2 - ACUTE TOXIC

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA Complies under research and development exemption or is regulated by a different

government agency.

DSL/NDL Contact supplier for inventory compliance status

EINECS/ELINCS Contact supplier for inventory compliance status

ENCS Contact supplier for inventory compliance status

IECSC Contact supplier for inventory compliance status

KECL Contact supplier for inventory compliance status

PICCS Contact supplier for inventory compliance status

AiIC Contact supplier for inventory compliance status

Legend:

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

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

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment is not required for this substance

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!