
1. Identification**1.1 GHS Product identifier**

Product name clopyralid

1.2 Other means of identification

Product number PRD3812

Other names 3,6-DCP

1.3 Recommended use of the chemical and restrictions on use

Identified uses For industry use only.

Uses advised against no data available

1.4 Supplier's details

Company Acros PharmaTech Limited

Address HongKong: Unit 3A-8,12/F,Kaiser Centre,No.18 Centre Street,Sai Ying Pun,HongKong

Mainland: Suite 920,Changwu Road 888,Changzhou,Jiangsu,China

Telephone 86(519)85265509

2. Hazard identification**2.1 Classification of the substance or mixture**

Serious eye damage, Category 1

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

Hazard statement(s)

H318 Causes serious eye damage

Precautionary statement(s)

Prevention

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Response

P310 Immediately call a POISON CENTER/doctor/...

Storage

none

Disposal

none

2.3 Other hazards which do not result in classification

none

3. Composition/information on ingredients**3.1 Substances**

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
clopyralid	clopyralid	1702-17-6	none	≥98%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Fresh air, rest.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

If swallowed

Rinse mouth.

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No specific antidote known. Symptomatic treatment.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, powder.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled

substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

6.3 Methods and materials for containment and cleaning up

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. /Lontrel Turf and Ornamental/

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Do NOT store or transport in containers made from aluminium. Do not store or transport in containers made from aluminium.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9. Physical and chemical properties

Physical state

White or primrose yellow powder or crystal

Colour	White crystalline solid
Odour	Odorless
Melting point/ freezing point	130°C(lit.)
Boiling point or initial boiling point and boiling range	162°C/15mmHg(lit.)
Flammability	Combustible.
Lower and upper explosion limit / flammability limit	no data available
Flash point	56°C(lit.)
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	In water:1.0 g/L
Partition coefficient n-octanol/water (log value)	log Kow = 1.06
Vapour pressure	0.000599mmHg at 25°C
Density and/or relative density	1.612 g/cm ³
Relative vapour density	no data available
Particle characteristics	no data available

10.Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Store above 28 deg F or warm to 40 deg F and agitate before use.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

When heated to decomposition it emit toxic fumes of /hydrogen chloride and nitrogen oxides/.

11.Toxicological information

Acute toxicity

- Oral: LD50 Rat male oral 4300 mg/kg
- Inhalation: no data available
- Dermal: LD50 Rabbit percutaneous > 2000 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Cancer Classification: Not Likely to be Carcinogenic to Humans

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12. Ecological information**12.1 Toxicity**

- Toxicity to fish: LC50; Species: *Oncorhynchus mykiss* (Rainbow trout); Concentration: 103.5 mg/L for 96 hr /Conditions of bioassay not specified
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

12.2 Persistence and degradability

AEROBIC: While some investigators found clopyralid to be biodegradable in field soils(1-2), others found that the herbicide was relatively persistent in field soil(3). Thus the biodegradation of clopyralid appears to be soil dependent and the rate of biodegradation in soil may be enhanced both by higher temperature and higher number of organisms that are capable of degrading the herbicide(4). The half-lives of clopyralid in a clay, clay loam and sandy loam soil at 20°C and 85% field moisture capacity were estimated to be 38 days, 13 days and 36 days, respectively(4).

12.3 Bioaccumulative potential

A BCF of 19 was reported in fish for clopyralid in a flowing water test(1). According to a classification scheme(2), this BCF suggests the bioconcentration in aquatic organisms is low(SRC).

12.4 Mobility in soil

Koc values of 2(1), 4.6(2) and 0.4 to 12.9(3) have been reported. According to a classification scheme(4), these Koc values suggest that clopyralid is expected to have very high mobility in soil. However, many leachate studies have reported little or no clopyralid detected in the leachate(2,5-6). The pKa of clopyralid is 2.32(7), indicating that this compound will exist almost entirely in anion form in the environment and anions generally do not adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(8).

12.5 Other adverse effects

no data available

13. Disposal considerations**13.1 Disposal methods****Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information**14.1 UN Number**

ADR/RID: UN2811 IMDG: UN2811 IATA: UN2811

14.2 UN Proper Shipping Name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S.

IMDG: TOXIC SOLID, ORGANIC, N.O.S.

IATA: TOXIC SOLID, ORGANIC, N.O.S.

14.3 Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packing group, if applicable

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: no IMDG: no IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15. Regulatory information**15.1 Safety, health and environmental regulations specific for the product in question**

Chemical name	Common names and synonyms	CAS number	EC number
clopyralid	clopyralid	1702-17-6	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.

EC Inventory	Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

16. Other information

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Disclaimer: 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. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.