



# **TargetMøl** YOUR TARGET MOLECULES

Creation Date:	May 23, 2024
Revision Date:	May 23, 2024

# According to the UN GHS revision 8

1.	IDENTIFICATION	
1.1	GHS Product identifier	
	Product name:	Clopyralid
	Catalog Number:	т19953
	CAS Number:	1702-17-6
1.2	1.2 Other means of identification	
	Other names:	
1.3	Recommended use of the	chemical and restrictions on use
	Identified uses:	
1.4	Supplier's details	
	Company:	Targetmol Chemicals Inc.
	Uses advised against:	36 Washington Street, Wellesley Hills, Massachusetts 02481 USA
	Tel/Fax:	(781) 999-4286
1.5	5 Emergency phone number	
	Emergency phone number:	781-999-4286
	Service hours:	Monday to Friday, 9am-5pm (Standard timezone:UTC/GMT -5hours).
2.	HAZARD IDENTIFICATION	
2.1	Classification of the substance or mixture	
	Serious eye damage, Category 1	
2.2	.2 GHS label elements, including precautionary statements	
	Pictogram(s):	
	Cian al words	
	Signal word:	Danger
	Hazard statement(s):	H318 Causes serious eye damage
	Precautionary statement(s):	P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing
	Prevention:	protection/
	Response:	P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P317 Get medical help.
	Storage:	none
	Disposal:	none
2.3	Other hazards which do r	not resultin classification
	no data available	

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

# 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number
Clopyralid	-	1702-17-6	216-935-4

# 4. FIRST-AID MEASURES

# 4.1 Description of necessary first-aid measures

#### **General advice**

no data available

# If inhaled

Fresh air, rest.

# Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

# Following eye contact

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

# Following ingestion

Rinse mouth.

# 4.2 Most important symptoms/effects, acute and delayed

No specific antidote known. Symptomatic treatment.

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

no data avail<mark>abl</mark>e

# 5. FIRE-FIGHTING MEASURES

# 5.1 Extinguishing media

Use water spray, powder.

# 5.2 Specific hazards arising from the chemical

Combustible.

# 5.3 Special protective actions for fire-fighters

Use water spray, powder.

# 6. ACCIDENTAL RELEASE MEASURES

# 6.1 Personal precautions, protective equipment and emergency procedures

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.

# 6.2 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

NO open flames. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

# 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

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the riskelimination area.

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

#### Eye/face protection

Wear safety goggles.

#### **Skin protection**

Protective gloves.

#### **Respiratory protection**

Use local exhaust or breathing protection.

#### Thermal hazards

no data available

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	ODOURLESS WHITE OR COLOURLESS CRYSTALS.
Color	White crystalline solid
Odour	Odorless
Melting point/ freezing point	130°C(lit.)
Boilingpoint 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
рН	no data available
Kinematic viscosity	no data available
Solubility	DMSO: Soluble,

# A DRUG SCREENING EXPERT

N-octanol-water partition coefficient	log Kow = 1.06
Vapour pressure	0.000599mmHg at 25°C
Density and/ or relative density	1.612 g/cm3
Relative vapour density	no data available
Particle characteristics	no data available

# 10. STABILITY AND REACTIVITY

# 10.1 Reactivity

Decomposes on burning. This produces toxic and corrosive fumes of nitrogen oxides and chlorine (see ICSC 0126). The solution is corrosive to aluminum, iron and tin.

# 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

Decomposes on burning. This produces toxic and corrosive fumes of nitrogen oxides and chlorine (see ICSC 0126). The solution is corrosive to aluminum, iron and tin.

#### 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

The substance is irritating to the eyes, skin and respiratory tract.

#### STOT-repeated exposure

no data available

#### Aspiration hazard

Evaporation at 20°C is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly.

# 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 deg 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

no data available

#### 14.2 UN Proper Shipping Name

no data available

#### 14.3 Transport hazard class(es)

no data available

# 14.4 Packing group, if applicable

no data available

# 14.5 Environmental hazards



no data available

# 14.6 Special precautions for user

no data available

# 14.7 Transport in bulk according to IMO instruments

no data available

# **15. REGULATORY INFORMATION**

# 15.1 Safety, health and environmental regulations specific for the product in question

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	Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.
Korea Existing Chemicals List (KECL)	Not Listed.

# 16. OTHER INFORMATION

#### Information on revision

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#### 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/

#### Other Information

Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.

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. All products are for Research Use Only · Not For Human or Veterinary or Therapeutic Use