SAFETY DATA SHEETS

According to the UN GHS revision 10

1: Identification

1.1 GHS Product identifier

Product name	Vinclozolin

1.2 Other means of identification

Product number	50471-44-8
Other names	Vinclozolin

1.3 Recommended use of the chemical and restrictions on use

Identified uses	Industrial and scientific research use.
Uses advised against	no data available

1.4 Supplier's details

Company	Zhongshan Greenrock Technology Co., Ltd.
Address	No. 138, Jinsan Avenue, Sanjiao Town, Zhongshan City, Guangdong Province, China
Telephone	+86-2087066781

1.5 Emergency phone number

Emergency phone number	+86-2087066781
Service hours	Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

2: Hazard identification

2.1 Emergency Overview

Substances with long-term health risks may cause cancer, gene mutations, or reproductive system damage. Even short-term exposure may have long-term health effects and exposure must be strictly controlled.

2.2 GHS Classification

Sensitization, Skin : Category 1, 1A, 1B
Carcinogenicity : Category 2
Reproductive toxicity : Category 1, 1A, 1B
Hazardous to the aquatic environment, long-term hazard : Category 2

2.3 GHS label elements, including precautionary statements

Pictogram(s)

Signal word	Danger
Hazard statement(s)	H317 May cause an allergic skin reaction H351 Suspected of causing cancer H360 May damage fertility or the unborn child H411 Toxic to aquatic life with long lasting effects
Precautionary statement(s)	
Prevention	P203 Obtain, read and follow all safety instructions before use. P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
Response	P318 if exposed or concerned, get medical advice. P321 Specific treatment (see ... on this label). P391 Collect spillage. P302+P352 IF ON SKIN,wash with plenty of water/... P333+P317 If skin irritation or rash occurs,Get medical help. P362+P364 Take off contaminated clothing and wash it before reuse.
Storage	P405 Store locked up.
Disposal	P501 Dispose of contents/container to ...

2.4 Physical and chemical

Although they may not be immediately dangerous, some substances may also be irritants or corrosives. They may decompose and produce more toxic products during long-term storage.

2.5 Health hazards

Carcinogenicity, Long-term exposure may increase the risk of cancer. Mutagenicity: May cause genetic damage, affecting offspring. Reproductive toxicity: May affect fertility or cause fetal malformations. Symptoms typically appear after a latent period of several years.

2.6 Environmental hazards

May persist and accumulate in the environment. Chronic toxicity to aquatic and terrestrial organisms can affect their reproductive capacity. It may accumulate through the food chain, ultimately affecting human health.

2.7 Other hazards which do not result in classification

no data available

3: Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Vinclozolin	Vinclozolin	50471-44-8	256-599-6	99%

4: First-aid measures

4.1 General advice

Stop contact immediately and remove contaminated clothing (rinse with clean water and then wash); wash skin with soap and water, record contact history (including contact time and frequency); and have regular physical examinations (such as chest CT and blood routine once a year).

4.2 If inhaled

Move to fresh air. If carcinogenic gases (such as benzene) are inhaled and coughing or chest tightness occurs, seek medical attention. Those with long-term exposure need to monitor lung function and blood routine.

4.3 In case of skin contact

Rinse with soap and running water for 15 minutes. If skin is irritated, apply a non-irritating moisturizer; avoid breaking the skin to prevent penetration of substances.

4.4 In case of eye contact

Rinse with saline for 10 minutes and then instill artificial tears; if discomfort persists, seek medical attention from an ophthalmologist.

4.5 If swallowed

Do not induce vomiting, seek medical attention immediately, and bring the substance's SDS; inform the doctor of the substance's carcinogenic/mutagenic properties and perform a gastrointestinal endoscopy if necessary.

4.6 Most important symptoms and effects, both acute and delayed

Acute symptoms: mild skin/eye irritation; long-term effects: carcinogenicity (such as lung cancer, leukemia), mutagenicity (chromosomal abnormalities), reproductive toxicity (infertility, fetal malformations).

4.7 Protection of first-aiders

Rescuers need to wear chemical protective clothing, gas masks (equipped with organic vapor filter cartridges), and chemical protective gloves; equipment must be thoroughly cleaned after contact to avoid residue.

4.8 Notes to physician

Inform the doctor of the substance name and exposure history; long-term exposure requires a special physical examination plan (such as blood tests every 6 months and tumor markers every year)

5: Fire-fighting measures

5.1 Unsuitable extinguishing media

It is strictly forbidden to use fire extinguishing agents that may cause the spread of toxic substances (such as high-pressure water jets); if it contains flammable ingredients, avoid using carbon dioxide (concentrated toxic vapor).

5.2 Specific hazards during fire fighting

Combustion releases carcinogenic/mutagenic gases (such as benzopyrene and formaldehyde), which are harmful to health if exposed for a long time. The combustion products of some substances are easily adsorbed on dust, expanding the scope of pollution. Toxic substances are not easy to decompose and require professional handling after fire extinguishing.

5.3 Hazardous combustion products

Polycyclic aromatic hydrocarbons (carcinogenic), formaldehyde (mutagenic), heavy metal smoke (such as chromium, nickel), chlorides (when containing chlorine).

5.4 Specific extinguishing methods

Small area: Use dry powder/foam to extinguish the fire, and use water mist to dilute the toxic vapor; Large area: Evacuate personnel, if fire must be extinguished, cover with foam (to reduce vapor release); After extinguishing the fire, conduct toxicity testing on the area and dispose of pollutants as hazardous waste.

5.5 Special protective equipment for fire-fighters

Wear chemical protective clothing, positive pressure air respirator, and chemical protective gloves; carry a toxic gas detector (to detect benzene, formaldehyde, etc.); wear a dust mask (to protect against toxic dust) during work, and conduct a health check after work.

6: Accidental release measures

6.1 Protective measures for workers

Wear fully enclosed chemical protective clothing, positive pressure respirator (volatile), toxic-resistant gloves + goggles; workers should undergo regular physical examinations and record their exposure history; eating, drinking and smoking are prohibited.

6.2 Environmental protection measure

Isolate the contaminated area within 20 meters and conduct long-term environmental monitoring (soil/air); leaks are prohibited from being discarded at will; the contaminated area must be released after passing the inspection by the environmental protection department.

6.3 Containment methods for leaked chemicals

Liquids should be collected in disposable corrosion-resistant containers (marked with hazard categories); solids should be collected in chemical-resistant bags (to prevent dust); and stored separately in dedicated hazardous waste warehouses.

6.4 Cleanup methods for chemical spills

Small leakage: absorbed by special adsorption materials and then packaged in chemical-proof bags; large leakage: transferred by professional team using special equipment; after cleaning, the ground is treated with disinfectant.

6.5 Measures to prevent the spread of leaks

20-meter isolation zone + warning signs; high-efficiency filtration and ventilation (volatile); chemical isolation belt to prevent spread to residential areas.

6.6 Container leakage treatment

Minor leaks: seal with professional sealant + tightness test; serious leaks: evacuate, transfer by professional team, and dispose of the container as hazardous waste.

6.7 Special considerations

Operators need special training; protective equipment must be disinfected and tested before reuse; leak handling must be reported to the environmental protection department.

7: Handling and storage

7.1 Safe storage conditions

Stored in a closed, leak-proof warehouse (walls lined with polyethylene film and floors with impermeable resin); containers are made of non-degradable materials (such as high-density polyethylene, borosilicate glass) with anti-theft lids (requires a key to open); the warehouse is equipped with an air purification system (HEPA filter, filtration efficiency ?99.97%).

7.2 Storage precautions

Isolate from children and unrelated personnel, and place biohazard signs at the warehouse entrance; store separately to avoid mixing with other chemicals; test the concentration of hazardous substances in the warehouse every quarter to ensure that it is below the occupational exposure limit (such as carcinogen OEL ? 0.01mg/m³); discarded containers must be sterilized at high temperature (?121?, 30 minutes) before disposal.

7.3 VCI Storage Grade

Level 4 (lowest): Metal containers are treated with ordinary anti-rust treatment (such as galvanizing, thickness ? 10?m) and corrosion is checked once a year; the humidity in the warehouse is controlled at 45%-65% to avoid damage to the containers due to moisture.

7.4 Recommended storage temperature

Store at 10-30°C, away from light (e.g., some photosensitive carcinogens must be stored in brown containers); easily degradable substances (e.g., some organic carcinogens) must be stored at ?25°C, equipped with light-proof and sun-shading facilities; long-term storage (over 1 year) requires the stability of the substance to be checked every 3 months (if the label has a recommended storage temperature, follow the label).

7.5 Handling

For precautions see Safety Data Sheet section 2
Advice on safe handling : Work under hood. Do not inhale substance/mixture.

8: Exposure controls/personal protection

8.1 Respiratory protection

When exposed to carcinogens (such as benzene and formaldehyde) for a long time, wear a powered air-purifying respirator (APF?50); dust (such as asbestos) requires Type P100 filter cotton to ensure no leakage.

8.2 Recommended Filter type

For organic carcinogens, choose Type A2 filter cartridge; for inorganic carcinogenic gases (such as arsine), choose Type E+K composite filter cartridge; for dust, choose Type P100 filter cotton.

8.3 Eye/face protection

Wear chemical protection goggles + protective mask. The mask material should be resistant to toxic penetration. The lenses need to be replaced regularly for long-term work (to prevent aging).

8.4 Skin and body protection

Wear impermeable chemical protective clothing made of polyethylene + aluminum foil coating (anti-organic vapor penetration); avoid skin damage during operation to prevent material intrusion.

8.5 Hand protection

Wear toxic and chemical-resistant gloves made of butyl rubber or fluororubber. Gloves need to be regularly tested for penetration (once every three months) and replaced immediately if unqualified.

8.6 Hygiene measures

After work, clean the skin with a special detergent (such as a neutral surfactant), then rinse with running water for 10 minutes; clothes must be washed separately and must not be mixed with household clothes; undergo special physical examinations every year (such as chest CT, chromosome examination).

9: Physical and chemical properties and safety characteristics

Physical state	Vinclozolin is a colorless crystal with a slight aromatic odor
Colour	Colorless crystals.
Odour	Slight aromatic odor
Melting point/freezing point	108oC
Boiling point or initial boiling point and boiling range	369.9oC at 760 mmHg

Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	>30°C
Auto-ignition temperature	no data available
Decomposition temperature	When heated to decomposition it emits very toxic fumes of /hydrogen chloride/ and nitrous oxides.
pH	no data available
Kinematic viscosity	no data available
Solubility	In methanol 1.54, acetone 33.4, ethyl acetate 23.3, n-heptane 0.45, toluene 10.9, dichloromethane 47.5 (all in g/100 mL at 20°C).
Partition coefficient n-octanol/water	log Kow = 3.10
Vapour pressure	1.2X10-7 mm Hg at 20°C
Density and/or relative density	1.496 g/cm3
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

Stable up to 50 degrees C. Stable in neutral and weakly acidic media.

10.3 Possibility of hazardous reactions

A halogenated dicarboximide. Organic amides/imides react with azo and diazo compounds to generate toxic gases. Flammable gases are formed by the reaction of organic amides/imides with strong reducing agents. Amides are very weak bases (weaker than water). Imides are less basic yet and in fact react with strong bases to form salts. That is, they can react as acids. Mixing amides with dehydrating agents such as P2O5 or SOCl2 generates the corresponding nitrile. The combustion of these compounds generates mixed oxides of nitrogen (NOx).

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 emits very toxic fumes of /hydrogen chloride/ and nitrous oxides.

11: Toxicological information

11.1 Acute toxicity

Oral: LD50 Rat oral 10,000 mg/kg
Inhalation: LC50 Rat inhalation > 29,100 mg/cu m over 4hr
Dermal: no data available

11.2 Skin corrosion/irritation

no data available

11.3 Serious eye damage/irritation

no data available

11.4 Respiratory or skin sensitization

no data available

11.5 Germ cell mutagenicity

no data available

11.6 Carcinogenicity

Cancer Classification: Group C Possible Human Carcinogen

11.7 Reproductive toxicity

no data available

11.8 STOT-single exposure

no data available

11.9 STOT-repeated exposure

no data available

11.10 Aspiration hazard

no data available

12: Ecological information

12.1 Toxicity

Toxicity to fish: LC50; Species: Lepomis macrochirus (Bluegill); Conditions: freshwater, static; Concentration: 47500 ug/L for 96 hr (95% confidence interval: 37100-60300 ug/L) /96.5% purity
Toxicity to daphnia and other aquatic invertebrates: EC50; Species: Daphnia magna (Water flea, age 20 hr); Conditions: freshwater, static; Concentration: 3650 ug/L for 48 hr; Effect: intoxication, immobilization /96.5% purity
Toxicity to algae: EC50; Species: Pseudokirchneriella subcapitata (Green algae, age 7 days); Conditions: freshwater, static; Concentration: 1020 ug/L for 5 days; Effect: population abundance /98% purity
Toxicity to microorganisms: no data available

12.2 Persistence and degradability

Vinclozolin is persistent in soil, being only partly degraded by soil microorganisms(1). When vinclozolin was applied to a previously untreated sandy loam soil (17.7% clay, 67.5% sand, 14.8% silt, pH 6.5, 1.05% organic C), less than 10% of the applied dose remained after 40 days(2). Following re-treatment at 50 days, less than 10% remained 23 days later, and when treated for the third time, less than 10% remained after just 2 days(2). In a clay loam soil (19.1% clay, 68.9% sand, 12.0% silt, pH 6.3, 0.68% organic C), times for 50% loss of the first, second, and third applications of vinclozolin were about 7, 4, and 2.5 days, respectively(2). In a third soil (8.6% clay, 75.7% sand, 15.7% silt, pH 5.0, 1.13% organic carbon), 47% of the initial dose remained after 140 days(2). When treated for the first time after pre-incubation with the fungicide, about 60% of the vinclozolin was recovered after 69 days(2). During an 80 day incubation period, only limited degradation of vinclozolin was observed in soils at pH 4.3 and 5.0(3). In soil with pH 5.7, the time for 50% loss of vinclozolin was about 75 days; times for 50% degradation following the first, second, and third application of vinclozolin were 70, 30, and 6 days, respectively(3). In soil with pH 6.5, the times for 50% degradation following the first, second, and third applications were 30, 22, and 7 days, respectively(3). After 14 days incubation in soil with no pretreatment, and soil pretreated with iprodione, vinclozolin, myclozolin, and procymidone, the concentration of vinclozolin was 5.45, 5.50, 0.05, 5.39, and 5.45 mg/kg, respectively; after 28 days the concentration of vinclozolin was 2.44, 2.44, 1.89, 0, 2.37, and 2.31 mg/kg, respectively(4). In Patumahoe clay loam, the time for 50% loss of vinclozolin following the first, second, and third soil application of the fungicide was 22, 3.5, and 1 days, respectively(5). For five different types of field soil (clay loam, silt loam, loam, sandy loam and sandy clay loam) ranging in pH from 7.98 to 8.35, 90% degradation was reached after one, two and three applications of vinclozolin in approximately 35, 21 and 7 days, respectively(6).

12.3 Bioaccumulative potential

One study predicted worst-case BCF values in fish for vinclozolin of 60 and 1,260(1), respectively, on a wet weight basis with 5% lipid, and on a lipid basis predicted from the log Kow of 3.10(2) if no metabolism occurs or is negligible(1). Another study calculated a BCF range of 78 to 112(3). An estimated BCF of 52 was calculated in fish for vinclozolin(SRC), using a log Kow of 3.10(2) and a regression-derived equation(4). According to a classification scheme(5), these BCF data suggest the potential for bioconcentration in aquatic organisms is moderate to very high(SRC), provided the compound is not metabolized by the organism(SRC).

12.4 Mobility in soil

In laboratory tests, vinclozolin migrated through Ottowa sand more deeply compared to aquatic hapludult soil, where all vinclozolin mass was retained in the upper 5 cm under high (6.7 mm) and low (3.1 mm) rain events(1). One review suggested Koc values range from 100 to 735(2). A Koc value of 1,570 was determined in a Chalmers silty clay loam(3). According to a classification scheme(4), these disparate Koc

values suggest that vinclozolin is expected to range from low to high mobility in soil.

12.5 Other adverse effects

no data available

13: Disposal considerations

13.1 Disposal methods for waste chemicals

It must be handled by an organization with hazardous waste disposal qualifications, with high-temperature incineration (temperature ? 900°C) being preferred to completely destroy hazardous substances. Waste that cannot be incinerated must be chemically degraded or stabilized before being safely landfilled. Contaminated containers must be sterilized at high temperatures or chemically before disposal.

13.2 Precautions

Disposal personnel must wear special protective equipment and undergo regular health checks; waste must be tightly sealed to prevent leakage; waste gas and wastewater generated during the disposal process must undergo special treatment to ensure compliance with standards; disposal records must be kept for a long time (at least 30 years); and mixing with ordinary waste is prohibited.

14: Transport information

14.1 UN Number

ADR/RID: UN3077	IMDG: UN3077	IATA: UN3077

14.2 UN Proper Shipping Name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

14.3 Transport hazard class(es)

ADR/RID: 9	IMDG: 9	IATA: 9

14.4 Packing group, if applicable

ADR/RID: III	IMDG: III	IATA: III

14.5 Environmental hazards

ADR/RID: yes	IMDG: yes	IATA: yes

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

Chemical name	Common names and synonyms	CAS number	EC number
Vinclozolin	Vinclozolin	50471-44-8	256-599-6
New Zealand Inventory of Chemicals (NZIoC)			Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Not Listed.
Australian Inventory of Industrial Chemicals (AIIC)			Not Listed.
Catalogue of Strictly Restricted Toxic Chemicals in China			Not Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
European INventory of Existing Commercial chemical Substances			Not Listed.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans			Not Listed.
TSCA Inventory of Chemical Substances			Not Listed.

16: Other information

Information on revision

SDS Creation Date	July 1, 2025
SDS Revision Date	July 1, 2025

Abbreviations and acronyms in SDS

- 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%

SDS 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/

Any questions regarding this Safety Data Sheet, Please send your inquiry to sales@MolBest.com

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