

SAFETY DATA SHEETS

According to the UN GHS revision 8

Version: 1.0

Creation Date: July 15, 2024

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SECTION 1: Identification

1.1 GHS Product identifier

Product name Chloramben

1.2 Other means of identification

Product number C70171

Other names

1.3 Recommended use of the chemical and restrictions on use

Identified uses Chloramben is used as a herbicide to control grasses and broadleaf weeds on soybeans, dry beans, lima beans, asparagus, pumpkins, squash, corn, tomatoes, peppers, and sweet potatoes.

Uses advised against no data available

1.4 Supplier's details

Company Tianjin Psaitong Biomedical Technology Co., Ltd
Beijing Psaitong Biotechnology Co., Ltd
Address Building 145, Yougu New Science Park, Qingguang Town, Beichen District, Tianjin City
Tel/Fax +86-10-60605840

1.5 Emergency phone number

Emergency phone number +86-10-60605840
Service hours Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Skin irritation, Category 2
Eye irritation, Category 2
Specific target organ toxicity – single exposure, Category 3
Carcinogenicity, Category 1B

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word Danger
Hazard statement(s) H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

H350 May cause cancer

Precautionary statement(s)

Prevention

P264 Wash ... thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P203 Obtain, read and follow all safety instructions before use.

Response

P302+P352 IF ON SKIN: Wash with plenty of water/...
P321 Specific treatment (see ... on this label).
P332+P317 If skin irritation occurs: Get medical help.
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P319 Get medical help if you feel unwell.
P318 IF exposed or concerned, get medical advice.

Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Chloramben	Chloramben	133-90-4	205-123-5	100%

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

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

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms/effects, acute and delayed

ACUTE/CHRONIC HAZARDS: This compound emits toxic fumes when heated to decomposition. (NTP, 1992)

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

Absorption, Distribution and Excretion

Studies in a lactating cow showed that over/ a period of 4 days, dietary chloramben (5 ppm in daily ration) was rapidly excreted in urine (88%) & feces (5%). no residues were detected in the milk. approx 18% of chloramben in urine was present as unknown conjugated material.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Fires involving this material can be controlled using a dry chemical, carbon dioxide or Halon extinguisher. (NTP, 1992)

5.2 Specific hazards arising from the chemical

Flash point data for this compound is not available, but it is probably combustible. (NTP, 1992)

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

SECTION 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 risk-elimination area.

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

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flammable resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. 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

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	PHYSICAL DESCRIPTION: Purplish white powder or light purple solid. (NTP, 1992)
Colour	COLORLESS CRYSTALLINE SOLID
Odour	ODORLESS
Melting point/freezing point	194-201°C
Boiling point or initial boiling point and boiling range	373.2°C at 760mmHg
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	179.5°C
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	less than 0.1 mg/mL at 72° F (NTP, 1992)
Partition coefficient n-octanol/water	log Kow = 1.11
Vapour pressure	3.12E-06mmHg at 25°C
Density and/or relative density	1.607g/cm3
Relative vapour density	no data available
Particle characteristics	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Rapidly decomposed by light

10.3 Possibility of hazardous reactions

NonflammableCHLORAMBEN reacts with sodium hypochlorite solutions (NTP, 1992).

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

Disaster hazard: when heated to decomp, it emits highly toxic fumes such as /hydrogen/ chloride and nitrous oxides.

SECTION 11: Toxicological information

Acute toxicity

- Oral: LD50 Rat oral 3,500 to 5,620 mg/kg
- Inhalation: no data available

- Dermal: no data available

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

no data available

Reproductive toxicity

No information is available on the reproductive or developmental effects of chloramben in humans. Reduced ossification of skeletal bones was reported in the fetuses of rats orally exposed to chloramben.

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

SECTION 12: Ecological information

12.1 Toxicity

- Toxicity to fish: no data available
- 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

Studies with soil microflora indicated that breakdown of amiben occurred...& that the carboxyl was cleaved slowly but steadily.

12.3 Bioaccumulative potential

Based on a measured water solubility of 700 mg/L at 25 deg C(2) and a regression derived equation(1), a BCF of 15.34 can be estimated for Amiben(SRC). This BCF value suggests that Amiben may not bioconcentrate in aquatic organisms(SRC).

12.4 Mobility in soil

Amiben is expected to have anionic properties in most soil systems under environmental conditions (pH 5-9). When a column of Ella island soil type (pH 3.8, 1.6% organic matter, 82.7% sand, 12.2% silt, and 5.2% clay) was perfused for 160 days with a microbial medium containing 5.7 and 26.9 ppm (14)-COOH-labelled Amiben, 1.4 ppm (24.6%) and 5.0 ppm (18.5%) Amiben adsorbed to the soil, respectively. When a column of Kewaunee clay soil type (pH 6.4, 3.8% organic matter, 14% sand, 35.1% silt, and 48.7% clay) was perfused for 160 days with a microbial medium containing 5.7 and 26.9 ppm 14COOH-labelled Amiben, 0.6 ppm (11.1%) and 2.6 ppm (9.8%) Amiben adsorbed to the soil, respectively. When a column of Poygan silty clay soil type (pH 7.2, 10% organic matter, 6% sand, 58.9% silt, and 33.6% clay) was perfused for 160 days with a microbial medium containing 5.7 and 26.9 ppm 14COOH-labelled Amiben, 1.4 ppm (24.6%) and 5.4 ppm (20.1%) Amiben adsorbed to the soil, respectively. Therefore, soil pH and organic matter content are the primary factors controlling Amiben adsorption with higher adsorption to soil occurring either at a low pH with a low organic matter content or at a neutral pH with a high organic matter content(1).

12.5 Other adverse effects

SECTION 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.

SECTION 14: Transport information

14.1 UN Number

ADR/RID: UN2588 (For reference only, please check.)

IMDG: UN2588 (For reference only, please check.)

IATA: UN2588 (For reference only, please check.)

14.2 UN Proper Shipping Name

ADR/RID: PESTICIDE, SOLID, TOXIC, N.O.S. (For reference only, please check.)

IMDG: PESTICIDE, SOLID, TOXIC, N.O.S. (For reference only, please check.)

IATA: PESTICIDE, SOLID, TOXIC, N.O.S. (For reference only, please check.)

14.3 Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.)

IMDG: 6.1 (For reference only, please check.)

IATA: 6.1 (For reference only, please check.)

14.4 Packing group, if applicable

ADR/RID: I (For reference only, please check.)

IMDG: I (For reference only, please check.)

IATA: I (For reference only, please check.)

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 IMO instruments

no data available

SECTION 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
Chloramben	Chloramben	133-90-4	205-123-5
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)			Not 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.

SECTION 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/>

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