

SAFETY DATA SHEETS

According to the UN GHS revision 8

Version: 1.0

Creation Date: July 15, 2024

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1. Identification

1.1 GHS Product identifier

Product name Chlorpromazine hydrochloride

1.2 Other means of identification

Product number C60011

Other names

1.3 Recommended use of the chemical and restrictions on use

Identified uses Industrial and scientific research uses.

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).

2. Hazard identification

2.1 Classification of the substance or mixture

Acute toxicity - Oral, Category 3

Acute toxicity - Inhalation, Category 2

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word Danger

Hazard statement(s) H301 Toxic if swallowed

H330 Fatal if inhaled

Precautionary statement(s)

Prevention

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

P271 Use only outdoors or in a well-ventilated area.

Response	<p>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...</p> <p>P321 Specific treatment (see ... on this label).</p> <p>P330 Rinse mouth.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P310 Immediately call a POISON CENTER/doctor/...</p> <p>P320 Specific treatment is urgent (see ... on this label).</p>
Storage	<p>P405 Store locked up.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p>
Disposal	<p>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.</p>

2.3 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
Chlorpromazine hydrochloride	Chlorpromazine hydrochloride	69-09-0	200-701-3	100%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Medical attention is required. Consult a doctor. Show this safety data sheet (SDS) to the doctor in attendance.

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

SYMPTOMS: This compound can cause severe dermatitis in sensitized persons. It may also cause drowsiness, dryness of mouth, nasal congestion, postural hypotension, lowering of body temperature, tachycardia, arrhythmias, agitation, insomnia, depression, miosis and mydriasis, convulsions, photosensitivity, skin rashes, inhibition of ejaculation, obstructive jaundice, chronic constipation, urinary retention, various hematological disorders, allergic reactions, development of purple pigmentation in exposed skin, deposition of pigment in eyes and altered endocrine functions. It reduces the efficiency of heat regulation such that individuals tend to acquire the temperature of the environment. It also reduces salivary and gastric secretion. It may cause extrapyramidal effects and sedative (neuroleptic) effects which cause suppression of spontaneous movement and complex movements while spinal reflexes and unconditioned nociceptive-avoidance behaviors remain intact. **ACUTE/CHRONIC HAZARDS:** This compound is an irritant. It may cause dermatitis in sensitized persons. When heated to decomposition it emits very toxic fumes of chlorine, nitrogen oxides and sulfur oxides. (NTP, 1992)

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

Cardiovascular monitoring should begin immediately and should include continuous ECG monitoring to detect possible arrhythmias. Treatment may include correction of electrolyte abnormalities and acid-base balance, lidocaine, phenytoin,

isoproterenol, ventricular pacing, and defibrillation. Antiarrhythmic agents that can prolong the QT interval (eg, class IA [disopyramide, procainamide, quinidine] or III agents) should be avoided in treating overdose-associated arrhythmias in which prolongation of QTc is a manifestation. Appropriate therapy (IV fluids and a vasopressor) should be instituted if hypotension occurs; epinephrine, bretylium, or dopamine should not be used. For the management of refractory hypotension, vasopressors such as phenylephrine, levarterenol, or metaraminol may be used. Appropriate therapy should be instituted if excessive sedation occurs; CNS stimulants that may cause seizures should be avoided. If seizures occur, treatment should not include barbiturates because these drugs may potentiate phenothiazine-induced respiratory depression. Hypothermia is common and sometimes difficult to control. In some patients with acute toxicity, exchange transfusions may be useful, but hemodialysis, forced diuresis, hemoperfusion, or manipulation of urine pH is of little value in enhancing elimination of phenothiazines. Phenothiazine General Statement

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.

5.2 Specific hazards arising from the chemical

Flash point data for this chemical are not available; however, it is probably combustible. (NTP, 1992)

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

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

Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labeled container for disposal. Wash spill site.

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

Chlorpromazine hydrochloride oral solutions, tablets, and injection should be stored at a temperature less than 40 deg C, preferably between 15-30 deg C; freezing of the oral solutions and injection should be avoided. ... Chlorpromazine suppositories should be stored in well-closed containers between 15-30 deg C. ... Chlorpromazine hydrochloride oral concentrate solution should be dispensed in amber glass bottles.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure 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

9. Physical and chemical properties

Physical state	PHYSICAL DESCRIPTION: White or creamy-white odorless crystalline powder with very bitter taste. pH (5% aqueous solution) 4.0-5.5. pH (10% aqueous solution) 4-5. (NTP, 1992)
Colour	Oily liquid
Odour	Amine odor
Melting point/ freezing point	365°C(dec.)(lit.)
Boiling point or initial boiling point and boiling range	56°C(lit.)
Flammability	no data available
Lower and upper explosion limit / flammability limit	no data available
Flash point	47°C(lit.)
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	Alkaline reaction
Kinematic viscosity	no data available
Solubility	greater than or equal to 100 mg/mL at 75° F (NTP, 1992)
Partition coefficient n-octanol/water	log Kow = 5.41
Vapour pressure	5.17X10 ⁻⁶ mm Hg at 25 deg C (est)
Density and/or relative density	1.077 g/cm ³ (15 C)
Relative vapour density	no data available
Particle characteristics	no data available

10. Stability and reactivity

10.1 Reactivity

Decomposes on exposure to air and light. becoming yellow, pink and, finally, violet. Water soluble.

10.2 Chemical stability

Chlorpromazine and its hydrochloride salt darken on prolonged exposure to light. Commercially available preparations of chlorpromazine and its hydrochloride salt should be protected from light.

10.3 Possibility of hazardous reactions

CHLORPROMAZINE HYDROCHLORIDE is incompatible in aqueous solution with sodium salts of barbiturates and other alkaline solutions. Solutions may be stabilized by addition of antioxidants and storing under nitrogen. (NTP, 1992)

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Chlorpromazine hydrochloride injection is physically and/or chemically incompatible with some drugs, but the compatibility depends on several factors (eg, concentrations of the drugs, specific diluents used, resulting pH, temperature). Specialized references should be consulted for specific compatibility information.

10.6 Hazardous decomposition products

When heated to decomposition it emits very toxic fumes of /hydrogen chloride/, nitroxides, and sulfoxides.

11. Toxicological information

Acute toxicity

- Oral: LD50 Rat oral 225 mg/kg
- Inhalation: LC50 Mouse inhalation 209 mg/cu m/2 hr
- 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 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: 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

no data available

12.3 Bioaccumulative potential

An estimated BCF of 1,700 was calculated in fish for chlorpromazine(SRC), using a log Kow of 5.41(1) and a regression-derived

equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is very high(SRC), provided the compound is not metabolized by the organism(SRC).

12.4 Mobility in soil

The Koc of chlorpromazine is estimated as 9,900(SRC), using a log Kow of 5.41(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that chlorpromazine is expected to be immobile in soil. The pKa of chlorpromazine is 9.3(4), indicating that this compound will almost entirely exist in cation form in the environment and cations generally adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(5).

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 (For reference only, please check.)

IMDG: UN2811 (For reference only, please check.)

IATA: UN2811 (For reference only, please check.)

14.2 UN Proper Shipping Name

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

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

IATA: TOXIC SOLID, ORGANIC, 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 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
Chlorpromazine hydrochloride	Chlorpromazine hydrochloride	69-09-0	200-701-3
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)	Listed.
Vietnam National Chemical Inventory	Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Listed.
Korea Existing Chemicals List (KECL)	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/>

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