ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Hexachlorophene

Revision Date:2026-05-31 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Hexachlorophene
CBnumber	: CB8687902
CAS	: 70-30-4
EINECS Number	: 200-733-8
Synonyms	: hexachlorophene,Fomac

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

Classification of the substance or mixture

Acute toxicity - Category 3, Oral

Acute toxicity - Category 3, Dermal

Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1

Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

Label elements

Pictogram(s)

□□□□

Signal word Danger

Hazard statement(s)

H225 Highly Flammable liquid and vapour

H370 Causes damage to organs

H410 Very toxic to aquatic life with long lasting effects

H411 Toxic to aquatic life with long lasting effects

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

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

P273 Avoid release to the environment.

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

P311 Call a POISON CENTER or doctor/physician.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P501 Dispose of contents/container to.....

Prevention

P264 Wash ... thoroughly after handling.

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

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

P273 Avoid release to the environment.

Response

P301+P316 IF SWALLOWED: Get emergency medical help immediately.

P321 Specific treatment (see ... on this label).

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water/...

P316 Get emergency medical help immediately.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P391 Collect spillage.

Storage

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.

Other hazards

no data available

SECTION 3: Composition/information on ingredients

Substance

Product name	: Hexachlorophene
Synonyms	: hexachlorophene,Fomac
CAS	: 70-30-4
EC number	: 200-733-8
MF	: C13H6Cl6O2
MW	: 406.9

SECTION 4: First aid measures

Description of first aid measures

If inhaled

Fresh air, rest.

Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention .

Following eye contact

Rinse with plenty of water (remove contact lenses if easily possible).

Following ingestion

Rinse mouth. Rest. Give a slurry of activated charcoal in water to drink. Refer immediately for medical attention.

Most important symptoms and effects, both acute and delayed

Inhalation of dust is poisonous; irritating to mucous membranes. Eye and skin irritant. Poisonous if swallowed. Symptoms following ingestion include anorexia, nausea, vomiting, abdominal cramps, and diarrhea. Dehydration may be severe and may be associated with shock. (USCG, 1999)

Indication of any immediate medical attention and special treatment needed

Other therapies. Though this compound is quite toxic systemically and enhanced clearance methods would appear beneficial, there is no evidence to support the efficacy of hemodialysis, peritoneal dialysis, hemoperfusion, or exchange transfusion.

SECTION 5: Firefighting measures

Extinguishing media

If material on fire or involved in fire: Extinguish fire using agent suitable for type of surrounding fire. (Material itself does not burn or burns with difficulty.) Use water in flooding quantities as fog. Use foam, dry chemical or carbon dioxide. Keep run-off waste out of sewers and water sources.

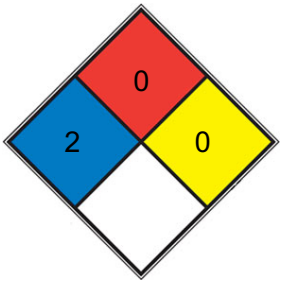
Specific Hazards Arising from the Chemical

Special Hazards of Combustion Products: Contain toxic and irritating chloride fumes. Behavior in Fire: Decomposes to produce toxic and irritating gases. (USCG, 1999)

Advice for firefighters

Use water spray, powder, foam, carbon dioxide.

NFPA 704



■	HEALTH 2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)

■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered sealable containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered sealable containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

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

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.

Conditions for safe storage, including any incompatibilities

Separated from food and feedstuffs. Store in an area without drain or sewer access. Provision to contain effluent from fire extinguishing.Store at room temperature up to 25 deg C (77 deg F).

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

Exposure controls

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

Individual protection measures

Eye/face protection

Wear face shield.

Skin protection

Protective gloves. Protective clothing.

Respiratory protection

Use local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Physical state	crystalline
Colour	off-white to tan
Odour	ODORLESS OR HAS ONLY SLIGHTLY PHENOLIC ODOR
Melting point/freezing point	160 - 166°C
Boiling point or initial boiling point and boiling range	166°C
Flammability	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit	no data available
Flash point	238.6°C
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	less than 1 mg/mL at 68° F (NTP, 1992)
Partition coefficient n-octanol/water	7.54 (calculated)
Vapour pressure	8.3X10-11 mm Hg at 25 deg C (est)
Density and/or relative density	1.713g/cm3
Relative vapour density	no data available
Particle characteristics	no data available

SECTION 10: Stability and reactivity

Reactivity

Decomposes on heating and on burning. This produces toxic and irritating fumes including hydrogen chloride. Reacts with strong oxidants.

Chemical stability

no data available

Possibility of hazardous reactions

HEXACHLOROPHENE is incompatible with strong oxidizers. It forms salts with alkalis and alkaline earths. (NTP, 1992)

Conditions to avoid

no data available

Incompatible materials

Oxidizers.

Hazardous decomposition products

When heated to decomposition, it emits highly toxic fumes of ... /hydrogen chloride/.

SECTION 11: Toxicological information

Acute toxicity

- Oral: LD50 Rat oral 56 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

Classification of carcinogenicity: 1) evidence in humans: no data; 2) evidence in animals: inadequate. Overall summary evaluation of carcinogenic risk to humans is Group 3: The agent is not classifiable as to its carcinogenicity to humans. From table

Reproductive toxicity

no data available

STOT-single exposure

The substance may cause effects on the nervous system and optic nerve. This may result in cardiac disorders, respiratory failure and blindness. The effects may be delayed up to 48 hours. Medical observation is indicated.

STOT-repeated exposure

Repeated or prolonged contact with skin may cause dermatitis. Repeated or prolonged contact may cause skin sensitization. The substance may have effects on the nervous system and optic nerve. This may result in tissue lesions and blindness. May cause toxicity to human reproduction or development.

Aspiration hazard

A nuisance-causing concentration of airborne particles can be reached quickly when dispersed.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: LC50; Species: Pimephales promelas (Fathead minnow) age 30 days, length 20.1 mm, weight 0.103 g; Conditions: freshwater, flow through, 24.3 deg C, pH 7.30, hardness 51.1 mg/L CaCO3, alkalinity 45.8 mg/L CaCO3, dissolved oxygen 5.8 mg/L; Concentration: 21 ug/L for 96 hr (95% confidence interval: 19-23 ug/L) /99% purity
Toxicity to daphnia and other aquatic invertebrates: EC50; Species: Daphnia magna (Water Flea) age <24 hr neonate; Conditions: freshwater, static, 21 deg C, pH 7.6; Concentration: 0.000487 mM for 24 hr; Effect: intoxication, immobilization
Toxicity to algae: no data available
Toxicity to microorganisms: no data available

Persistence and degradability

AEROBIC: Hexachlorophene, present at 100 mg/L, reached 0% of its theoretical BOD in 4 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test(1). Radio-labeled C14-hexachlorophene was not biodegraded in surface water from the Skidaway River, GA(2). In sediments from Skidaway River, radio-labeled C14-hexachlorophene was degraded with a half-life of 290 days(2).

Bioaccumulative potential

The BCF of hexachlorophene in carp (Cyprinus carpio), exposed for 8 weeks to 2 and 0.2 ug/L were 87-148 and 82-153, respectively(1). BCFs for hexachlorophene in mosquito fish (Gambusia affinis) and snails (Physa sp) are 278 and 970, respectively(2). According to a classification scheme(3), these BCFs suggest the potential for bioconcentration in aquatic organisms is moderate to high(SRC).

Mobility in soil

The Koc of hexachlorophene has been reported as 91,000(1). According to a classification scheme(2), this Koc value suggests that hexachlorophene is expected to be immobile in soil. The pKa of hexachlorophene is 4.95(3), indicating that this compound will partially exist 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(4). A study of the mobility in Hagerstown silty clay loam soil TLC (thin layer chormatography) plates using 10 soil fungi and an alga (range of Rf values, 0.01-0.04, avg 0.01) indicated very little movement on the soil TLC plates(5). A monitoring study identified hexachlorophene in humic acid fractions of two sediment samples taken at least eight years after the FDA ban on the over-the-counter sale of cosmetics and drugs containing more than 0.1% hexachlorophene(6). These data indicate that hexachlorophene was strongly associated with organic matter which may have been as a result of covalent binding of the ionizable compound(5-6).

Other adverse effects

no data available

SECTION 13: Disposal considerations

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

UN Number

ADR/RID: UN2875 (For reference only, please check.)

IMDG: UN2875 (For reference only, please check.)

IATA: UN2875 (For reference only, please check.)

UN Proper Shipping Name

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

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

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

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.)

Packing group, if applicable

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

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

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

Environmental hazards

ADR/RID: Yes

IMDG: Yes

IATA: Yes

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

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

Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

PICCS

Listed.

Vietnam National Chemical Inventory

Not Listed.

IECSC

Listed.

Korea Existing Chemicals List (KECL)

Not Listed.

SECTION 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/