Safety Data Sheet

17 Mix organochlorines in n-hexane

Version: V2.0.0.1

Report No.: BWN6306-2016-MSDS-US

Creation Date: 2025/10/22

Revision Date: -



*Prepared according to American OSHA HCS-2024 (29 CFR 1910.1200)

| 1 | Identification |
|---|----------------|
|---|----------------|

| Product identifier

| Product Name | 17 Mix organochlorines in n-hexane |
|-------------------|------------------------------------|
| Cat No. | BWN6306-2016 |
| CAS No. | Not applicable |
| EC No. | Not applicable |
| Molecular Formula | Not applicable |

Recommended use of the product and restrictions on use

| Relevant identified uses | Please consult manufacturer. |
|--------------------------|------------------------------|
| Uses advised against | Please consult manufacturer. |

Details of the supplier of the Safety Data Sheet

| Name of the company | Weiyel Inc |
|------------------------|--|
| Address of the company | Hedian Light Industrial Park, Chengguan Town, Shangcheng County, Xinyang |
| | City, Henan Province, China |
| Post code | 465350 |
| Telephone number | 010-58103678 |
| Fax number | 010-84840368 |
| E-mail address | info@weiyel.com |

| Emergency phone number

| Emergency phone number | 010-58103678 |
|------------------------|--------------|

2 Hazard(s) identification

Hazard classification according to 29 CFR 1910.1200

| Flammable liquids | Category 2 |
|----------------------------------|-------------|
| Aspiration hazard | Category 1 |
| Skin Corrosion/Irritation | Category 2 |
| Sensitization - skin | Category 1 |
| Specific target organ toxicity - | Category 3 |
| single exposure; narcotic | |
| effects | |
| Carcinogenicity | Category 1B |
| Reproductive Toxicity | Category 1B |
| Reproductive Toxicity - effects | Additional |

| on or via lactation | |
|----------------------------------|------------|
| Specific target organ toxicity - | Category 1 |
| repeated exposure | |

| Label elements

| Hazard pictograms | |
|-------------------|--------|
| Signal word | Danger |

Hazard statements

| - | |
|------|--|
| H225 | Highly flammable liquid and vapour |
| H304 | May be fatal if swallowed and enters airways |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H336 | May cause drowsiness or dizziness |
| H350 | May cause cancer |
| H360 | May damage fertility or the unborn child |
| H362 | May cause harm to breast-fed children |
| H372 | Causes damage to organs through prolonged or repeated exposure(oral, nervous system) |

Precautionary statements

Prevention

| ▼ Frevention | |
|--------------|--|
| P20 | Obtain special instructions before use. |
| P20 | Do not handle until all safety precautions have been read and understood. |
| P21 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P23 | Keep container tightly closed. |
| P24 | Ground and bond container and receiving equipment. |
| P24 | Use explosion-proof [electrical/ventilating/lighting] equipment. |
| P24 | Use non-sparking tools. |
| P24 | Take action to prevent static discharges. |
| P26 | Do not breathe gas/mist/vapour/spray. |
| P26 | Avoid contact during pregnancy and while nursing. |
| P26 | Wash hands and other parts of the body (if related) thoroughly after handling. |
| P27 | Do not eat, drink or smoke when using this product. |
| P27 | Use only outdoors or with adequate ventilation. |
| P27 | Contaminated work clothing should not be allowed out of the workplace. |
| P28 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |
| ◆ Response | |
| Doc | |

| P321 | Specific treatment (see related instructions on the label). |
|-----------|---|
| P331 | Do NOT induce vomiting. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |

| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
|----------------|---|
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P370+P378 | Small fire: dry chemical, CO ₂ or alcohol-resistant foam; Large fire: alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower]. |
| ◆ Storage | |
| P405 | Store locked up. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| ◆ Disposal | |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

Other hazards

Not applicable.

| Hazard description

Physical and chemical hazards

Highly flammable liquids, its vapor and air mixture can form explosive mixture.

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Health hazards

| Inhaled | Dizziness. Drowsiness. Dullness. Headache. Nausea. Weakness. | |
|---|--|--|
| Unconsciousness. | | |
| Ingestion Abdominal pain. (Further see Inhalation). | | |
| Skin Contact Dry skin. Redness. Pain. | | |
| Eye Redness. Pain. | | |

Environmental hazards

Please refer to 12th chapter of SDS.

3 Composition/information on ingredients

Substance/mixture

Mixture

| Component | CAS No. | EC No. | Concentration (wt, %) |
|---|----------|-----------|-----------------------|
| N-hexane | 110-54-3 | 203-777-6 | 98.3 |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | 319-84-6 | 206-270-8 | 0.1 |
| (1α,2β,3α,4β,5α,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | 319-85-7 | 206-271-3 | 0.1 |
| δ-Hexachlorocyclohexane | 319-86-8 | 206-272-9 | 0.1 |
| Lindane | 58-89-9 | 200-401-2 | 0.1 |

| 2,2-bis(p-chlorophenyl)-1, 1-dichloroethylene | 72-55-9 | 200-784-6 | 0.1 |
|--|------------|-----------|-----|
| 4,4-DDD | 72-54-8 | 200-783-0 | 0.1 |
| 2,2-DDT | 50-29-3 | - | 0.1 |
| o,p'-DDT | 789-02-6 | 212-332-5 | 0.1 |
| Quintozene | 82-68-8 | 201-435-0 | 0.1 |
| Hexachlorobenzene | 118-74-1 | 204-273-9 | 0.1 |
| Heptachlor | 76-44-8 | 200-962-3 | 0.1 |
| Heptachlor epoxide | 1024-57-3 | 213-831-0 | 0.1 |
| Heptachlor endo-epoxide isomer | 28044-83-9 | 634-785-1 | 0.1 |
| Aldrin | 309-00-2 | 206-215-8 | 0.1 |
| cis-Chlordane | 5103-71-9 | 225-825-5 | 0.1 |
| trans-Chlordan | 5103-74-2 | 225-826-0 | 0.1 |
| Oxychlordane | 27304-13-8 | - | 0.1 |

4 First-aid measures

Description of first aid measures

| • | |
|----------------------------|---|
| General advice | Immediate medical attention is required. Show this safety data sheet (SDS) to the |
| | doctor in attendance. |
| Eye contact | First rinse with plenty of water for several minutes (remove contact lenses if easily |
| | possible), then take to a doctor. |
| Skin contact | Remove contaminated clothes. Rinse and then wash skin with water and soap. |
| | Refer for medical attention. |
| Ingestion | Rinse mouth. Do NOT induce vomiting. Rest. Refer for medical attention. |
| Inhalation | Fresh air, rest. Refer for medical attention. |
| Protecting of first-aiders | Ensure that medical personnel are aware of the substance involved. Take |
| | precautions to protect themselves and prevent spread of contamination. |

Most important symptoms/effects, acute and delayed

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Indication of any immediate medical attention and special treatment needed

- 1 Treat symptomatically.
- 2 Symptoms may be delayed.

5 Fire-fighting measures

Extinguishing media

| Suitable extinguishing media | Small fire: dry chemical, CO ₂ or alcohol-resistant foam; Large fire: |
|--------------------------------|--|
| | alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight |
| | fire from maximum distance or use unmanned master stream devices or monitor |
| | nozzles. Cool containers with flooding quantities of water until well after fire is out. |
| Unsuitable extinguishing media | Use of water spray when fighting fire may be inefficient. |

Specific hazards arising from the substance or mixture

| | 17 Mix organochlorines in n-hexane | Version: V2.0.0.1 Revision Date: - |
|-----|---|--|
| 1 | Will form explosive mixtures with air. | |
| 2 | Fire exposed containers may vent contents through pressure relief valves or vapour concentration. | s thereby increasing fire intensity and/ |
| 3 | Vapours may travel to source of ignition and flash back. | |
| 4 | Liquid and vapour are flammable. | |
| 5 | Development of hazardous combustion gases or vapor possible in the e | vent of fire. |
| 6 | May expansion or decompose explosively when heated or involved in fir | e. |
| Spe | ecial protective equipment and precautions for fire-fighters | |
| 1 | As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH protective gear. | approved or equivalent) and full |

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Accidental release measures

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bunding.

Fight fire from a safe distance, with adequate cover.

Personal precautions, protective equipment and emergency procedures

| | • |
|---|--|
| 1 | Avoid breathing vapours and contacting with skin and eye. |
| 2 | Beware of vapours accumulating to form explosive concentrations. |
| 3 | Vapours can accumulate in low areas. |
| 4 | Emergency personnel wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves. |
| 5 | Use personal protective equipment, do not breathe gas/mist/vapour/spray. |
| 6 | Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. |
| 7 | Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |

| Environmental precautions

- Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided.
- Methods and materials for containment and cleaning up

Cut off the source of the leak as much as possible.

Keep leaks in a ventilated place.

| 1 | It is recommended that emergency personnel wear positive pressure self-contained breathing apparatus and wear anti-static clothing. |
|---|--|
| 2 | In case of small amount of spillage, use clean non sparking tools to collect absorption materials. |
| 3 | In case of large amount of spillage, construct cofferdam or dig a hole to collect the spillage. Use foam cover to reduce evaporation. Water spray mist can reduce evaporation, but can not reduce the flammability of the leakage in the restricted space. |
| 4 | Collect absorbent material using a clean, non-sparking tool. |
| 5 | Cover with anti-solvent foam to reduce evaporation. |
| 6 | Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. |
| 7 | Water spray reduces evaporation but does not reduce the flammability of spills in confined spaces. |

Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by

Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

| 12 | Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container. |
|----|---|
| 13 | Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. |

7 Handling and storage

| Precautions for safe handling

| 1 | Avoid inhalation of vapors. |
|---|---|
| 2 | Use only non-sparking tools. |
| 3 | To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded. |
| 4 | Use explosion proof equipment. |
| 5 | Handling is performed in a well ventilated place. |
| 6 | Wear suitable protective equipment. |
| 7 | Avoid contact with skin and eyes. |
| 8 | Keep away from heat/sparks/open flames/ hot surfaces. |

Conditions for safe storage, including any incompatibilities

| 1 | Keep containers tightly closed. | |
|---|--|--|
| 2 | Keep containers in a dry, cool and well-ventilated place. | |
| 3 | Keep away from heat/sparks/open flames/hot surfaces. | |
| 4 | Store away from incompatible materials and foodstuff containers. | |

8 Exposure controls/personal protection

| Control parameters

◆ Occupational exposure limit values

| Component | Country/Region | Limit value - Eight hours | | Limit value - Short term | |
|---|---|---------------------------|------------------------|--------------------------|-------|
| | | ppm | mg/m³ | ppm | mg/m³ |
| N-hexane | Japan - JSOH(2024–202 5) | 40 | 140 | - | - |
| | Permissible exposure standards for workers in the workplace | 50 | 176 | 75 | 220 |
| | Australia | 20 | 72 | - | - |
| | Canada - Ontario | 50 | - | - | - |
| | European Union | 20 | 72 | - | - |
| | New Zealand | 20 | 72 | - | - |
| (1α,2α,3β,4α,5β,6β)-1,2,3, 4,5,6-hexachlorocyclohe | Austria | - | 0.5(inhalable aerosol) | - | - |
| xane | Denmark | - | 0.5 | - | 1 |
| | Germany (DFG) | - | 0.5 | - | 4 |
| | Switzerland | - | 1(inhalable aerosol) | - | - |
| (1α,2β,3α,4β,5α,6β)-1,2,3, | Denmark | - | 0.5 | - | 1 |

| 4,5,6-hexachlorocyclohe | Germany (DFG) | - | 0.1 | - | 0.8 |
|-------------------------|---|-------|------------------------|---|-----------------------|
| xane | Switzerland | - | 0.2(inhalable aerosol) | - | - |
| Lindane | Permissible exposure standards for workers in the workplace | - | - | - | - |
| | Australia | 0.008 | 0.1 | - | - |
| | Canada - Ontario | - | 0.5 | - | - |
| | New Zealand | - | 0.1 | - | - |
| | USA - ACGIH | - | 0.5 | - | - |
| | USA - NIOSH | - | 0.5 | - | - |
| 2,2-DDT | Australia | - | 1 | - | - |
| | Canada - Ontario | - | 1 | - | - |
| | USA - ACGIH | - | 1 | - | - |
| | USA - NIOSH | - | 0.5 | - | - |
| | USA - OSHA | - | 1 | - | - |
| | Austria | - | 1(inhalable aerosol) | - | 10(inhalable aerosol) |
| Quintozene | Australia | - | 0.5 | - | - |
| | Canada - Ontario | - | 0.5 | - | - |
| | New Zealand | - | 0.5 | - | - |
| | USA - ACGIH | - | 0.5 | - | - |
| | Belgium | - | 0.5 | - | - |
| | Canada - Québec | - | 0.5 | - | - |
| Hexachlorobenzene | Canada - Ontario | - | 0.002 | - | - |
| | USA - ACGIH | - | 0.002 | - | - |
| | Belgium | - | 0.002 | - | - |
| | Canada - Québec | - | 0.025 | - | - |
| | Denmark | - | 0.025 | - | 0.05 |
| | Finland | - | 0.002 | - | - |
| Heptachlor | Permissible exposure standards for workers in the workplace | - | 0.5 | - | 1.5 |
| | Australia | - | 0.5 | - | - |
| | Canada - Ontario | - | 0.05 | - | - |
| | USA - ACGIH | - | 0.05 | - | - |
| | USA - NIOSH | - | 0.5 | - | - |
| | USA - OSHA | - | 0.5 | - | - |
| Heptachlor epoxide | Canada - Ontario | - | 0.05 | - | - |

| | USA - ACGIH | - | 0.05 | - | - |
|--------|----------------------|---|----------------|---|---|
| | Belgium | - | 0.05 | - | - |
| | Canada - Québec | - | 0.05 | - | - |
| | Ireland | - | 0.05 | - | - |
| | South Korea | - | 0.05 | - | - |
| Aldrin | Permissible exposure | - | - | - | - |
| | | | | | |
| | standards for | | | | |
| | workers in the | | | | |
| | workplace | | | | |
| | Australia | - | 0.25 | - | - |
| | Canada - Ontario | - | 0.05 | - | - |
| | USA - ACGIH | - | 0.05(inhalable | - | - |
| | | | fraction and | | |
| | | | vapor) | | |
| | USA - NIOSH | - | 0.25 | - | - |
| | USA - OSHA | - | 0.25 | - | - |

| Engineering controls

| 1 | Ensure adequate ventilation, especially in confined areas. |
|---|--|
| 2 | Ensure that eyewash stations and safety showers are close to the workstation location. |

Use explosion-proof electrical/ventilating/lighting/equipment.

4 Set up emergency exit and necessary risk-elimination area.

| Personal protection equipment

| General requirement | |
|--------------------------|---|
| Eye protection | Must wear appropriate safety goggles. |
| Hand protection | Must wear anti static chemical protective gloves. |
| Respiratory protection | Must wear appropriate personal respiratory protective equipment. |
| Skin and body protection | Must wear anti static chemical protective clothing and anti static shoes. |

Physical and chemical properties and safety characteristics

| Physical and chemical properties

| • • | |
|---|--------------------------|
| Appearance (physical state, | Clear, colorless liquid |
| color, etc.) | |
| Odor | No information available |
| Odor threshold | No information available |
| рН | No information available |
| Melting point/freezing point(°C) | -95 (N-hexane) |
| Initial boiling point and boiling range(°C) | 69 (N-hexane) |
| Flash point(Closed cup,°C) | -22 (N-hexane) |
| Evaporation rate | No information available |

| No information available |
|--|
| Upper limit: 7.5 (N-hexane); Lower limit: 1.1 (N-hexane) |
| 17kPa (20°C,N-hexane) |
| 3.0 (N-hexane) |
| 0.66~0.68 (20 °C,N-hexane) |
| Insoluble in water (N-hexane) |
| 3.9 (N-hexane) |
| |
| 225 (N-hexane) |
| No information available |
| No information available |
| |

Stability and reactivity

| Stability and reactivity

| Reactivity | Contact with incompatible substances can cause decomposition or other chemical reactions. |
|--------------------------|---|
| Chemical stability | Stable under proper operation and storage conditions. |
| Possibility of hazardous | In contact with an open flame may cause a fire or explosion. |
| reactions | |
| Conditions to avoid | Incompatible materials, heat, flame and spark. |
| Incompatible materials | Oxidantss and halogen. |
| Hazardous decomposition | Under normal conditions of storage and use, hazardous decomposition products |
| products | should not be produced. |

11 Toxicological information

Acute toxicity

| Component | LD ₅₀ (oral) | LD ₅₀ (dermal) | LC ₅₀ (inhalation,4h) |
|--|-------------------------|---------------------------|----------------------------------|
| Oxychlordane | 457mg/kg(Rat) | No information available | No information available |
| Hexachlorobenzene | 10000mg/kg(Rat) | 10000mg/kg(Rat) | No information available |
| 4,4-DDD | 113mg/kg(Rat) | 1200mg/kg(Rabbit) | No information available |
| 2,2-bis(p-chlorophenyl)-1, 1-dichloroethylene | 880mg/kg(Rat) | No information available | No information available |
| N-hexane | 25000mg/kg(Rat) | No information available | 169.188mg/L(Rat) |
| Heptachlor | 40mg/kg(Rat) | 500mg/kg(Rabbit) | No information available |
| Quintozene | >10000mg/kg(Rat) | No information available | No information available |
| 2,2-DDT | 113mg/kg(Rat) | 300mg/kg(Rabbit) | No information available |
| δ-Hexachlorocyclohexan e | 1000mg/kg(Rat) | No information available | No information available |
| Lindane | 88mg/kg(Rat) | 50mg/kg(Rabbit) | No information available |
| Aldrin | 39mg/kg(Rat) | 15mg/kg(Rabbit) | No information available |
| Heptachlor epoxide | 15mg/kg(Rat) | No information available | No information available |
| cis-Chlordane | 500mg/kg(Rat) | No information available | No information available |

| (1α,2α,3β,4α,5β,6β)-1,2,3, 4,5,6-hexachlorocyclohex ane | 177mg/kg(Rat) | No information available | No information available |
|---|-----------------|--------------------------|--------------------------|
| (1α,2β,3α,4β,5α,6β)-1,2,3, 4,5,6-hexachlorocyclohex ane | 6000mg/kg(Rat) | No information available | No information available |
| trans-Chlordan | 275mg/kg(Mouse) | No information available | No information available |

| Carcinogenicity

| Component | List of carcinogens by the IARC Monographs | Report on Carcinogens by NTP | OSHA Carcinogen List |
|---|--|---------------------------------|----------------------|
| N-hexane | Not Listed | Not Listed | Not Listed |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | Not Listed | Category R | Not Listed |
| (1α,2β,3α,4β,5α,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | Not Listed | Category R | Not Listed |
| δ-Hexachlorocyclohexane | Not Listed | Category R | Not Listed |
| Lindane | Category 1 | Category R | Not Listed |
| 2,2-bis(p-chlorophenyl)-1, 1-dichloroethylene | Not Listed | Not Listed | Not Listed |
| 4,4-DDD | Not Listed | Not Listed | Not Listed |
| 2,2-DDT | Category 2A | Category R | Not Listed |
| o,p'-DDT | Not Listed | Not Listed | Not Listed |
| Quintozene | Category 3 | Not Listed | Not Listed |
| Hexachlorobenzene | Category 2B | Category R | Not Listed |
| Heptachlor | Category 2B | Not Listed | Not Listed |
| Heptachlor epoxide | Not Listed | Not Listed | Not Listed |
| Heptachlor endo-epoxide isomer | Not Listed | Not Listed | Not Listed |
| Aldrin | Category 2A | Not Listed | Not Listed |
| cis-Chlordane | Not Listed | Not Listed | Not Listed |
| trans-Chlordan | Not Listed | Not Listed | Not Listed |
| Oxychlordane | Not Listed | Not Listed | Not Listed |

Others

| 17 Mix organochlorines in n-hexane | | |
|------------------------------------|--|--|
| Skin corrosion/irritation | Causes skin irritation(Category 2) | |
| Serious eye damage/irritation | Based on available data, the classification criteria are not met | |
| Skin sensitization | May cause an allergic skin reaction(Category 1) | |
| Respiratory sensitization | Based on available data, the classification criteria are not met | |
| Reproductive toxicity | May damage fertility or the unborn child(Category 1B); May cause harm to breast-fed children(Additional) | |
| STOT-single exposure | May cause drowsiness or dizziness(Category 3) | |
| STOT-repeated exposure | Causes damage to organs through prolonged or repeated exposure(oral, ner | |
| | | |

| | system)(Category 1) |
|------------------------|--|
| Aspiration hazard | May be fatal if swallowed and enters airways(Category 1) |
| Germ cell mutagenicity | Based on available data, the classification criteria are not met |

12 Ecological information

| Acute aquatic toxicity

| Component | Fish | Crustaceans | Algae or other aquatic plants | | |
|---|--|---|--|--|--|
| Hexachlorobenzene | LC ₅₀ : 7.6mg/L (96h)(Fish) | No information available | No information available | | |
| 4,4-DDD | LC ₅₀ : 0.056mg/L (96h)(Fish) | EC ₅₀ : 0.0052mg/L (48h)(Crustaceans) | No information available | | |
| 2,2-bis(p-chlorophenyl)-1, 1-dichloroethylene | LC ₅₀ : 0.096mg/L (96h)(Fish) | EC ₅₀ : 0.02mg/L (48h)(Crustaceans) | No information available | | |
| N-hexane | LC ₅₀ : 57.8mg/L (96h)(Fish) | No information available | No information available | | |
| Heptachlor | LC ₅₀ : 0.018mg/L (96h)(Fish) | EC ₅₀ : 0.04mg/L (48h)(Crustaceans) | ErC ₅₀ : 0.0332mg/L (96h)(Algae) | | |
| Quintozene | LC ₅₀ : 0.32mg/L (96h)(Fish) | EC ₅₀ : 0.93mg/L (48h)(Crustaceans) | ErC ₅₀ : >0.91mg/L (72h)(Algae) | | |
| 2,2-DDT | LC ₅₀ : 0.008mg/L (96h)(Fish) | No information available | | | |
| δ-Hexachlorocyclohexane | LC ₅₀ : 1.21mg/L (96h)(Fish) | No information available | No information available | | |
| Lindane | LC ₅₀ : 0.0714mg/L (96h)(Fish) | EC ₅₀ : 0.58mg/L (48h)(Crustaceans) | ErC ₅₀ : 1.62mg/L (96h)(Algae) | | |
| Aldrin | LC ₅₀ : 0.012mg/L (96h)(Fish) | EC ₅₀ : 0.02mg/L (48h)(Crustaceans) | No information available | | |
| Heptachlor epoxide | LC ₅₀ : 0.0126mg/L (96h)(Fish) | No information available | No information available | | |
| (1α,2β,3α,4β,5α,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | LC ₅₀ : 1.52mg/L (96h)(Fish) | No information available | No information available | | |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | LC ₅₀ : 1.5mg/L (96h)(Fish) | EC ₅₀ : 0.9mg/L (48h)(Crustaceans) | No information available | | |

| Chronic aquatic toxicity

| Component | Fish | Crustaceans | Algae or other aquatic plants |
|------------|--------------------------|------------------------|-------------------------------|
| Quintozene | No information available | NOEC: | NOEC: 0.13mg/L(Algae) |
| | | 0.084mg/L(Crustaceans) | |

| Persistence and degradability

| Component | Persistence (water/soil) | Persistence (air) |
|---|----------------------------|----------------------------|
| N-hexane | Low | Low |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | High(Half-life = 270 days) | Low(Half-life = 3.85 days) |

| $(1\alpha,2\beta,3\alpha,4\beta,5\alpha,6\beta)$ -1,2,3,4 ,5,6-hexachlorocyclohexa ne | High(Half-life = 248 days) | Low(Half-life = 3.85 days) |
|---|--------------------------------|--------------------------------|
| δ-Hexachlorocyclohexane | High(Half-life = 200 days) | Low(Half-life = 3.85 days) |
| Lindane | High(Half-life = 240.21 days) | Low(Half-life = 3.85 days) |
| 2,2-bis(p-chlorophenyl)-1, 1-dichloroethylene | High(Half-life = 11250 days) | Low(Half-life = 1.7 days) |
| 4,4-DDD | High(Half-life = 11250 days) | Low(Half-life = 5.54 days) |
| 2,2-DDT | High(Half-life = 11250 days) | Low(Half-life = 7.38 days) |
| Quintozene | High(Half-life = 699 days) | High(Half-life = 3663 days) |
| Hexachlorobenzene | High(Half-life = 4178 days) | High(Half-life = 1563.75 days) |
| Heptachlor | Low(Half-life = 5.39 days) | Low(Half-life = 0.41 days) |
| Aldrin | High(Half-life = 1183.33 days) | Low(Half-life = 0.38 days) |

| Bioaccumulative potential

| Component | Bioaccumulative potential | Comments |
|--|---------------------------|--------------|
| N-hexane | Medium | Log Kow=3.9 |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4 | Medium | Log Kow=3.8 |
| ,5,6-hexachlorocyclohexa | | |
| σ (1α,2β,3α,4β,5α,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | Medium | Log Kow=3.8 |
| δ-Hexachlorocyclohexane | Medium | Log Kow=4.14 |
| Lindane | Medium | BCF=1400 |
| 2,2-bis(p-chlorophenyl)-1, 1-dichloroethylene | High | Log Kow=6.51 |
| 4,4-DDD | High | Log Kow=6.02 |
| 2,2-DDT | High | BCF=4020 |
| Quintozene | High | Log Kow=4.77 |
| Hexachlorobenzene | High | BCF=575440 |
| Heptachlor | High | BCF=17300 |
| Aldrin | High | BCF=20000 |

| Mobility in soil

| Component | log Koc | Remark |
|---|---------------|----------------|
| N-hexane | ≥2.37 - ≤3.16 | 20 °C , pH=7.0 |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | 3.529 | |
| (1α,2β,3α,4β,5α,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | 3.529 | |

| T II | 0.500 | |
|----------------------------|-------|--|
| δ-Hexachlorocyclohexane | 3.529 | |
| Lindane | 3.529 | |
| 2,2-bis(p-chlorophenyl)-1, | 5.183 | |
| 1-dichloroethylene | | |
| 4,4-DDD | 5.183 | |
| 2,2-DDT | 5.343 | |
| Quintozene | 3.381 | |
| Hexachlorobenzene | 3.529 | |
| Heptachlor | 4.719 | |
| Aldrin | 5.024 | |

Disposal considerations

| Disposal considerations

| Waste chemicals | Before disposal should refer to the relevant national and local laws and |
|--------------------------|---|
| | regulation. Recommend the use of incineration disposal. |
| Contaminated packaging | Containers may still present chemical hazard when empty. Keep away from hot |
| | and ignition source of fire. Return to supplier for recycling if possible. |
| Disposal recommendations | Refer to section waste chemicals and contaminated packaging. |

14 Transport information

Label and Mark

Transporting Label



IMDG-CODE

| UN number | 1993 |
|--------------------------------|--------------------------|
| UN proper shipping name | FLAMMABLE LIQUID, N.O.S. |
| Transport hazard class | 3 |
| Transport subsidiary hazard | None |
| class | |
| Packing group | п |
| Marine pollutant (Yes or no) | No |
| | |

IATA-DGR

| UN number | 1993 |
|-----------------------------|--------------------------|
| UN proper shipping name | FLAMMABLE LIQUID, N.O.S. |
| Transport hazard class | 3 |
| Transport subsidiary hazard | None |
| class | |
| Packing group | п |

UN-ADR

| UN number | 1993 |
|-----------------------------|--------------------------|
| UN proper shipping name | FLAMMABLE LIQUID, N.O.S. |
| Transport hazard class | 3 |
| Transport subsidiary hazard | None |
| class | |
| Packing group | П |

Transport in bulk according to IMO instruments

◆ Transport in bulk according to Annex II of MARPOL and the IBC code

Not Available

◆ Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Not Available

◆ Transport in bulk in accordance with the IGC Code

Not Available

Others

Precautions for transport

Shipment of the goods vehicle exhaust pipe must be equipped with fire retardant devices, prohibit using mechanical equipment and tools of which easy to produce sparks. Transit should be anti-exposure, anti-rain, anti-high temperature. Transportation used tank (tank) cars should be grounded chain, tank can be installed to reduce the partition hole static electricity shocks. Strictly prohibited shipping or transportation with oxidants, acids, food and food additives etc. When bulk transport, Prohibit the use of cement or wooden boats. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

Version: V2.0.0.1 Revision Date: -

15 Regulatory information

International chemical inventory

| Component | Α | В | С | D | Е | F | G | Н | I | J | K | L | M |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| N-hexane | V | V | √ | √ | √ | √ | √ | √ | √ | √ | √ | 1 | √ |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | × | √ | √ | × | × | × | × | × | √ | × | × | √ | √ |
| (1α,2β,3α,4β,5α,6β)-1,2,3,4 ,5,6-hexachlorocyclohexa ne | V | 1 | 1 | × | × | × | × | × | 1 | × | × | 1 | 1 |
| δ-Hexachlorocyclohexane | \checkmark | √ | √ | × | √ | × | √ | × | √ | × | × | √ | √ |
| Lindane | √ | √ | √ | √ | × | √ | V | × | √ | × | √ | √ | √ |
| 2,2-bis(p-chlorophenyl)-1, 1-dichloroethylene | √ | √ | × | × | √ | √ | × | × | × | × | × | √ | √ |
| 4,4-DDD | $\sqrt{}$ | V | × | × | √ | √ | × | × | × | × | √ | √ | √ |
| 2,2-DDT | V | √ | √ | × | × | √ | √ | × | √ | × | √ | √ | √ |
| o,p'-DDT | V | √ | × | × | √ | × | × | × | × | × | × | √ | √ |
| Quintozene | V | V | V | × | √ | √ | × | × | V | × | √ | 1 | √ |

| Hexachlorobenzene | √ | √ | √ | √ | × | √ √ | × | √ | √ | √ | √ | √ | √ |
|--------------------------------|----------|----------|----------|----------|---|----------|----------|----------|----------|---|---|----------|----------|
| Heptachlor | √ | √ | × | × | × | √ | √ | × | V | × | √ | √ | √ |
| Heptachlor epoxide | × | √ √ | × | × | × | × | × | × | × | × | × | √ | √ |
| Heptachlor endo-epoxide isomer | × | × | × | × | × | × | × | × | × | × | × | V | 1 |
| Aldrin | √ | V | × | × | × | √ | V | × | V | × | V | V | √ |
| cis-Chlordane | × | √ | × | × | × | × | × | × | V | × | × | √ | √ |
| trans-Chlordan | × | √ | × | × | × | × | × | × | V | × | × | √ | √ |
| Oxychlordane | × | × | × | × | × | × | × | × | V | × | × | √ | √ |

- [A] China Inventory of Existing Chemical Substances(IECSC)
- [B] European Inventory of Existing Commercial Chemical Substances(EC inventory)
- [C] United States Toxic Substances Control Act Inventory(TSCA)
- [D] Canadian Domestic Substances List(DSL)
- [E] New Zealand Inventory of Chemicals(NZIoC)
- [F] Philippines Inventory of Chemicals and Chemical Substances(PICCS)
- [G] Korea Existing Chemicals Inventory(KECL)
- [H] Australian. Inventory of Industrial Chemical (AIICS)
- [1] Japan Inventory of Existing & New Chemical Substances(ENCS)
- [J] Thailand Existing Chemicals Inventory(TECI)
- [K] Mexico National Inventory of Chemical Substances (INSQ)
- [L] Russia Inventory of Existing Substances (DRAFT)
- [M] Inventory of Existing Chemical Substances in Taiwan, China (TCSI)

List of Chemical Substances under International Conventions

| Component | Α | В | С |
|---|---|---|---|
| N-hexane | × | × | × |
| (1α,2α,3β,4α,5β,6β)-1,2,3, 4,5,6-hexachlorocyclohex ane | × | V | × |
| (1α,2β,3α,4β,5α,6β)-1,2,3, 4,5,6-hexachlorocyclohex ane | × | V | × |
| δ-Hexachlorocyclohexane | × | × | × |
| Lindane | × | V | V |
| 2,2-bis(p-chlorophenyl)-1, 1-dichloroethylene | × | × | × |
| 4,4-DDD | × | × | × |
| 2,2-DDT | × | V | V |
| o,p'-DDT | × | × | × |
| Quintozene | × | × | × |
| Hexachlorobenzene | × | V | V |
| Heptachlor | × | V | V |
| Heptachlor epoxide | × | × | × |
| Heptachlor endo-epoxide isomer | × | × | × |
| Aldrin | × | V | V |
| cis-Chlordane | × | × | × |

| trans-Chlordan | × | × | × |
|----------------|---|---|---|
| Oxychlordane | × | × | × |

- [A] The Montreal Protocol on Substances that Deplete the Ozone Layer
- [B] Stockholm Convention on Persistent Organic Pollutants (POPs)
- [C] Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade

US chemical inventory

| Component | Α | В | С | D | E | F | G | Н |
|--|-----------|---|----------|----------|----------|---|----------|----------|
| N-hexane | $\sqrt{}$ | × | √ | √ | √ | √ | √ | √ |
| (1α,2α,3β,4α,5β,6β)-1,2,3, 4,5,6-he xachlorocyclohe xane | × | × | V | V | V | V | √ | × |
| (1α,2β,3α,4β,5α,6β)-1,2,3, 4,5,6-hexachlorocyclohe xane | × | × | V | √ | V | V | V | × |
| δ-Hexachlorocyclohexan e | × | × | √ | √ | √ | √ | √ | × |
| Lindane | $\sqrt{}$ | √ | √ | V | V | √ | √ | × |
| 2,2-bis(p-chlorophenyl)- 1,1-dichloroethylene | × | × | V | V | V | √ | √ | √ |
| 4,4-DDD | × | × | √ | V | V | √ | √ | √ |
| 2,2-DDT | × | × | √ | √ | √ | √ | √ | √ |
| o,p'-DDT | × | × | × | × | × | × | × | √ |
| Quintozene | $\sqrt{}$ | × | √ | √ | √ | √ | √ | × |
| Hexachlorobenzene | $\sqrt{}$ | × | √ | V | V | √ | √ | √ |
| Heptachlor | $\sqrt{}$ | × | √ | √ | √ | √ | √ | √ |
| Heptachlor epoxide | × | × | √ | √ | √ | √ | √ | √ |
| Heptachlor endo-epoxide isomer | × | × | × | × | × | × | × | × |
| Aldrin | × | √ | √ | √ | √ | √ | √ | √ |
| cis-Chlordane | × | × | √ | × | × | × | × | × |
| trans-Chlordan | × | × | √ | × | × | × | × | × |
| Oxychlordane | × | × | × | × | × | × | × | × |

- [A] US Clean Air Act (CAA)- Section 112, Hazardous Air Pollutants
- [B] US SARA 302- Extremely Hazardous Substance List
- [C] US CERCLA- Hazardous Substances List
- [D] US Massachusetts Right-to-Know Substance List
- [E] US New Jersey Right to Know Hazardous Substance List
- [F] US Pennsylvania Right to Know Hazardous Substance List
- [G] US New York City Right-to-Know Hazardous Substance List
- [H] US California Proposition 65 List

Note:

- " $\sqrt{}$ " Indicates that the substance included in the regulations.
- "x" No data or not included in the regulations.

16 Other information

Information on revision

| Creation Date | 2025/10/22 |
|---------------------|------------|
| Revision Date | - |
| Reason for revision | - |

Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home.
- [2] IARC, website: http://www.iarc.fr/.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: https://www.echemportal.org/echemportal/.
- [4] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple.
- [5] NLM: ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp.
- [6] EPA: Integrated Risk Information System, website: http://cfpub.epa.gov/iris/.
- [7] U.S. Department of Transportation: ERG, website: http://www.phmsa.dot.gov/hazmat/library/erg.
- [8] Germany GESTIS-database on hazard substance, website: http://gestis-en.itrust.de/.

Abbreviations and acronyms

| PC-STEL Short term exposure limit OECD Organization for Economic Co-operation and Development IMDG- PC-TWA Time Weighted Average International Maritime Dangerous Goods CODE | nt |
|---|-----|
| PC-TWA Time Weighted Average International Maritime Dangerous Goods CODE | |
| CODE International Valigerous Code | |
| MAC Maximum Allowable Concentration IARC International Agency for Research on Cancer | |
| 3 · · · · · · · · · · · · · · · · · · · | |
| | |
| PNEC Predicted No Effect Concentration IATA International Air Transportation Association | |
| NOEC No Observed Effect Concentration ACGIH American Conference of Governmental Industrial Hygienist | sts |
| LC ₅₀ Lethal Concentration 50% NFPA National Fire Protection Association | |
| LD ₅₀ Lethal Dose 50% NTP National Toxicology Program | |
| EC ₅₀ Effective Concentration 50% PBT Persistent, Bioaccumulative, Toxic | |
| EC _X Effective Concentration X% vPvB very Persistent, very Bioaccumulative | |
| Pow Partition coefficient Octanol: Water CMR Carcinogens, mutagens or substances toxic to reproduction | 'n |
| BCF Bioconcentration factor RPE Respiratory Protective Equipment | |
| ED Endocrine disruptor HCS Hazard Communication Standard | |

Disclaimer

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