
1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Semivolatile Pesticides Stock Standard

Product Number : ERS-013

Brand : Cerilliant

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832

Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225
Acute toxicity, Oral (Category 4), H302
Skin irritation (Category 2), H315
Carcinogenicity (Category 2), H351
Reproductive toxicity (Category 2), H361
Effects on or via lactation, H362
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336
Specific target organ toxicity - repeated exposure (Category 2), H373
Specific target organ toxicity - repeated exposure, Oral (Category 2), Nervous system, H373
Aspiration hazard (Category 1), H304
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word : Danger

Hazard statement(s)

H225 : Highly flammable liquid and vapour.
H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H336 : May cause drowsiness or dizziness.

| | |
|----------------------------|--|
| H351 | Suspected of causing cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H362 | May cause harm to breast-fed children. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs (Nervous system) through prolonged or repeated exposure if swallowed. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| Precautionary statement(s) | |
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| P233 | Keep container tightly closed. |
| P240 | Ground/bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ ventilating/ lighting/ equipment. |
| P242 | Use only non-sparking tools. |
| P243 | Take precautionary measures against static discharge. |
| P260 | Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. |
| P263 | Avoid contact during pregnancy/ while nursing. |
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. |
| P304 + P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P308 + P313 | IF exposed or concerned: Get medical advice/ attention. |
| P321 | Specific treatment (see supplemental first aid instructions on this label). |
| P330 | Rinse mouth. |
| P331 | Do NOT induce vomiting. |
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P370 + P378 | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction. |
| P391 | Collect spillage. |
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P403 + P235 | Store in a well-ventilated place. Keep cool. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

| Component | Classification | Concentration |
|-----------------|----------------|---|
| n-Hexane | | |
| CAS-No. | 110-54-3 | 30 - 50 % |
| EC-No. | 203-777-6 | |
| Index-No. | 601-037-00-0 | |
| | | Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1; Aquatic Acute 2; Aquatic Chronic 2; H225, H304, H315, H336, H361, H373, H411 |

| | | | |
|---|-----------------------|---|-----------|
| Toluene | | | |
| CAS-No. | 108-88-3 | Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; | 30 - 50 % |
| EC-No. | 203-625-9 | Asp. Tox. 1; Aquatic Acute 2; | |
| Index-No. | 601-021-00-3 | H225, H304, H315, H336, | |
| Registration number | 01-2119471310-51-XXXX | H361, H373, H401 | |
| trans-Chlordane | | | |
| CAS-No. | 5103-74-2 | Acute Tox. 4; Carc. 2; Aquatic | 0.1 - 1 % |
| EC-No. | 225-826-0 | Acute 1; Aquatic Chronic 1; | |
| | | H302, H351, H410 | |
| Chlordane | | | |
| CAS-No. | 5103-71-9 | Acute Tox. 4; Skin Irrit. 2; Eye | 0.1 - 1 % |
| EC-No. | 225-825-5 | Irrit. 2A; STOT SE 3; Aquatic | |
| | | Acute 1; Aquatic Chronic 1; | |
| | | H302 + H332, H315, H319, | |
| | | H335, H410 | |
| Heptachlor epoxide | | | |
| CAS-No. | 1024-57-3 | Acute Tox. 2; Carc. 2; STOT | 0.1 - 1 % |
| EC-No. | 213-831-0 | RE 2; Aquatic Acute 1; Aquatic | |
| Index-No. | 602-063-00-5 | Chronic 1; H300, H351, H373, | |
| | | H410 | |
| Heptachlor | | | |
| CAS-No. | 76-44-8 | Acute Tox. 2; Carc. 2; STOT | 0.1 - 1 % |
| EC-No. | 200-962-3 | RE 2; Aquatic Acute 1; Aquatic | |
| Index-No. | 602-046-00-2 | Chronic 1; H300 + H310, | |
| | | H351, H373, H410 | |
| Endosulfan sulfate | | | |
| CAS-No. | 1031-07-8 | Acute Tox. 2; Aquatic Acute 1; | 0.1 - 1 % |
| | | Aquatic Chronic 1; H300, | |
| | | H410 | |
| β-Endosulfan | | | |
| CAS-No. | 33213-65-9 | Acute Tox. 3; Aquatic Acute 1; | 0.1 - 1 % |
| | | Aquatic Chronic 1; H301, | |
| | | H410 | |
| Endrin | | | |
| CAS-No. | 72-20-8 | Acute Tox. 1; Acute Tox. 2; | 0.1 - 1 % |
| EC-No. | 200-775-7 | Aquatic Acute 1; Aquatic | |
| Index-No. | 602-051-00-X | Chronic 1; H300 + H310, | |
| | | H410 | |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | | | |
| CAS-No. | 319-84-6 | Acute Tox. 3; Acute Tox. 4; | 0.1 - 1 % |
| EC-No. | 206-270-8 | Carc. 2; Aquatic Acute 1; | |
| Index-No. | 602-042-00-0 | Aquatic Chronic 1; H301, | |
| | | H312, H351, H410 | |
| 2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane | | | |
| CAS-No. | 72-54-8 | Acute Tox. 3; Acute Tox. 4; | 0.1 - 1 % |
| EC-No. | 200-783-0 | Carc. 2; Aquatic Acute 1; | |
| | | Aquatic Chronic 1; H301, | |
| | | H312, H351, H410 | |
| γ-1,2,3,4,5,6-Hexachlorocyclohexane | | | |
| CAS-No. | 58-89-9 | Acute Tox. 3; Acute Tox. 4; | 0.1 - 1 % |
| EC-No. | 200-401-2 | Lact. ; STOT RE 2; Aquatic | |
| Index-No. | 602-043-00-6 | Acute 1; Aquatic Chronic 1; | |
| | | H301, H312 + H332, H362, | |

| | | | |
|---|--------------|---|-----------|
| | | H373, H410 | |
| Methoxychlor | | | |
| CAS-No. | 72-43-5 | Acute Tox. 4; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H302 + H312 + H332, H351, H410 | 0.1 - 1 % |
| EC-No. | 200-779-9 | | |
| (1α,2β,3α,4β,5α,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | | | |
| CAS-No. | 319-85-7 | Acute Tox. 3; Acute Tox. 4; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H312, H351, H410 | 0.1 - 1 % |
| EC-No. | 206-271-3 | | |
| Index-No. | 602-042-00-0 | | |
| Dieldrin | | | |
| CAS-No. | 60-57-1 | Acute Tox. 2; Acute Tox. 3; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H300, H311, H351, H372, H410 | 0.1 - 1 % |
| EC-No. | 200-484-5 | | |
| Index-No. | 602-049-00-9 | | |
| Aldrin | | | |
| CAS-No. | 309-00-2 | Acute Tox. 2; Acute Tox. 1; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H300 + H310, H351, H372, H410 | 0.1 - 1 % |
| EC-No. | 206-215-8 | | |
| Index-No. | 602-048-00-3 | | |
| 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane | | | |
| CAS-No. | 50-29-3 | Acute Tox. 3; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H301 + H311, H351, H372, H410 | 0.1 - 1 % |
| EC-No. | 200-024-3 | | |
| Index-No. | 602-045-00-7 | | |
| 1α,2α,3α,4β,5α,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | | | |
| CAS-No. | 319-86-8 | Acute Tox. 3; Acute Tox. 4; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H312, H351, H410 | 0.1 - 1 % |
| EC-No. | 206-272-9 | | |
| Index-No. | 602-042-00-0 | | |
| 2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene | | | |
| CAS-No. | 72-55-9 | Acute Tox. 4; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H302, H351, H410 | 0.1 - 1 % |
| EC-No. | 200-784-6 | | |
| Endosulfan (α isomer) | | | |
| CAS-No. | 959-98-8 | Acute Tox. 3; Aquatic Acute 1; Aquatic Chronic 1; H301, H410 | 0.1 - 1 % |
| Endrin ketone | | | |
| CAS-No. | 53494-70-5 | Acute Tox. 2; H300 | 0.1 - 1 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES**5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature -20 °C

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

| Component | CAS-No. | Value | Control parameters | Basis |
|---|----------|--|------------------------|--|
| n-Hexane | 110-54-3 | TWA | 50 ppm | USA. ACGIH Threshold Limit Values (TLV) |
| | Remarks | Central Nervous System impairment Eye irritation Peripheral neuropathy Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Danger of cutaneous absorption | | |
| | | TWA | 50 ppm 180 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | TWA | 500 ppm 1,800 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | The value in mg/m3 is approximate. | | |
| | | TWA | 50 ppm 180 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| Toluene | 108-88-3 | TWA | 100 ppm 375 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | STEL | 150 ppm 560 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | TWA | 200 ppm | USA. Occupational Exposure Limits (OSHA) - Table Z-2 |
| | | Z37.12-1967 | | |
| | | CEIL | 300 ppm | USA. Occupational Exposure Limits (OSHA) - Table Z-2 |
| | | Z37.12-1967 | | |
| | | Peak | 500 ppm | USA. Occupational Exposure Limits (OSHA) - Table Z-2 |
| | | Z37.12-1967 | | |
| | | TWA | 20 ppm | USA. ACGIH Threshold Limit Values (TLV) |
| | | Visual impairment Female reproductive Pregnancy loss 2013 Adoption Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen | | |
| | | TWA | 100 ppm 375 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | ST | 150 ppm 560 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane | 50-29-3 | TWA | 1 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Liver damage Confirmed animal carcinogen with unknown relevance to humans | | |
| | | TWA | 0.5 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | Potential Occupational Carcinogen See Appendix A | | |

| | | | | |
|--------------|----------|--|------------|--|
| | | TWA | 1 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | Skin designation | | |
| | | TWA | 1 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | Skin notation | | |
| Aldrin | 309-00-2 | TWA | 0.05 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Central Nervous System impairment Liver & kidney damage Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption | | |
| | | TWA | 0.25 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | Potential Occupational Carcinogen See Appendix A Potential for dermal absorption | | |
| | | TWA | 0.25 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | Skin designation | | |
| | | TWA | 0.25 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | Skin notation | | |
| Dieldrin | 60-57-1 | TWA | 0.1 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Central Nervous System impairment Liver damage Reproductive effects 2013 Adoption Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption | | |
| | | TWA | 0.25 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | Potential Occupational Carcinogen See Appendix A Potential for dermal absorption | | |
| | | TWA | 0.25 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | Skin designation | | |
| | | TWA | 0.25 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | Skin notation | | |
| Methoxychlor | 72-43-5 | TWA | 10 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Central Nervous System impairment Liver damage Not classifiable as a human carcinogen | | |
| | | Potential Occupational Carcinogen See Appendix A | | |

| | | | | |
|-------------------------------------|---------|---|-----------|--|
| | | TWA | 15 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | TWA | 10 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| γ-1,2,3,4,5,6-Hexachlorocyclohexane | 58-89-9 | TWA | 0.5 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Central Nervous System impairment Liver damage Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption | | |
| | | TWA | 0.5 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | Potential for dermal absorption | | |
| | | TWA | 0.5 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | Skin designation | | |
| | | TWA | 0.5 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | Skin notation | | |
| Heptachlor | 76-44-8 | TWA | 0.5 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | Skin notation | | |
| | | TWA | 0.5 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | Skin designation | | |
| | | TWA | 0.5 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | Potential Occupational Carcinogen See Appendix A Potential for dermal absorption | | |

Biological occupational exposure limits

| Component | CAS-No. | Parameters | Value | Biological specimen | Basis |
|-----------|----------|--|-----------|---------------------|---|
| n-Hexane | 110-54-3 | 2,5-Hexanedione | 0.4 mg/l | Urine | ACGIH - Biological Exposure Indices (BEI) |
| | Remarks | End of shift at end of workweek | | | |
| Toluene | 108-88-3 | Toluene | 0.02 mg/l | In blood | ACGIH - Biological Exposure Indices (BEI) |
| | | Prior to last shift of workweek | | | |
| | | Toluene | 0.03 mg/l | Urine | ACGIH - Biological Exposure Indices (BEI) |
| | | End of shift (As soon as possible after exposure ceases) | | | |
| | | o-Cresol | 0.3 mg/g | Urine | ACGIH - Biological Exposure Indices (BEI) |
| | | End of shift (As soon as possible after exposure ceases) | | | |

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

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

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- | | |
|---|--|
| a) Appearance | Form: liquid |
| b) Odour | No data available |
| c) Odour Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | No data available |
| f) Initial boiling point and boiling range | No data available |
| g) Flash point | -11 °C (12 °F) - closed cup |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapour pressure | No data available |
| l) Vapour density | No data available |
| m) Relative density | 0.789 g/cm ³ at 20 °C (68 °F) |
| n) Water solubility | No data available |
| o) Partition coefficient: n-octanol/water | No data available |
| p) Auto-ignition temperature | No data available |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |

t) Oxidizing properties No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: 2B - Group 2B: Possibly carcinogenic to humans (1 α ,2 α ,3 α ,4 β ,5 α ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane)

IARC: 2B - Group 2B: Possibly carcinogenic to humans ((1 α ,2 β ,3 α ,4 β ,5 α ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane)

IARC: 2B - Group 2B: Possibly carcinogenic to humans (γ -1,2,3,4,5,6-Hexachlorocyclohexane)

IARC: 2B - Group 2B: Possibly carcinogenic to humans ((1 α ,2 α ,3 β ,4 α ,5 β ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane)

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Heptachlor)

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Heptachlor epoxide)

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Chlordane)

IARC: 2B - Group 2B: Possibly carcinogenic to humans (trans-Chlordane)

- IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Toluene)
- IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Aldrin)
- IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Dieldrin)
- IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Methoxychlor)
- IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Endrin)
- NTP: Reasonably anticipated to be a human carcinogen (1 α ,2 α ,3 α ,4 β ,5 α ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane)
- NTP: Reasonably anticipated to be a human carcinogen (1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane)
- NTP: Reasonably anticipated to be a human carcinogen ((1 α ,2 β ,3 α ,4 β ,5 α ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane)
- NTP: Reasonably anticipated to be a human carcinogen The reference note has been added by TD based on the background information of the NTP. (γ -1,2,3,4,5,6-Hexachlorocyclohexane)
- NTP: Reasonably anticipated to be a human carcinogen ((1 α ,2 α ,3 β ,4 α ,5 β ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane)
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

Prolonged or repeated contact with skin may cause: defatting, Dermatitis, Contact with eyes can cause: Redness, Blurred vision, Provokes tears., Effects due to ingestion may include: Gastrointestinal discomfort, Central nervous system depression, Lung irritation, chest pain, pulmonary edema, giddiness, slowed reaction time, slurred speech, Headache, Dizziness, Drowsiness, Unconsciousness

Testes - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

Blood - Irregularities - Based on Human Evidence

Reproductive system - Irregularities - Based on Human Evidence

Testes - Irregularities - Based on Human Evidence (n-Hexane)

Stomach - Irregularities - Based on Human Evidence (Toluene)

Central nervous system - (1 α ,2 α ,3 α ,4 β ,5 α ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane)

Pancreas - (1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane)

Kidney - (Aldrin)

Blood - Irregularities - Based on Human Evidence (Dieldrin)

Blood - ((1 α ,2 β ,3 α ,4 β ,5 α ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane)

Kidney - (Methoxychlor)

Reproductive system - Irregularities - Based on Human Evidence (γ -1,2,3,4,5,6-Hexachlorocyclohexane)

Central nervous system - (Endrin)

Kidney - (β -Endosulfan)

Blood - (Heptachlor epoxide)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1993 Class: 3 Packing group: II
Proper shipping name: Flammable liquids, n.o.s. (Toluene, n-Hexane)
Reportable Quantity (RQ): 500 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN number: 1993 Class: 3 Packing group: II EMS-No: F-E, S-E
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Toluene, n-Hexane)
Marine pollutant: No

IATA

UN number: 1993 Class: 3 Packing group: II
Proper shipping name: Flammable liquid, n.o.s. (Toluene, n-Hexane)

15. REGULATORY INFORMATION

SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:

| | CAS-No. | Revision Date |
|-------------------------------------|----------|---------------|
| Aldrin | 309-00-2 | 2007-07-01 |
| γ-1,2,3,4,5,6-Hexachlorocyclohexane | 58-89-9 | 2007-07-01 |
| Endrin | 72-20-8 | 2007-07-01 |

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

| | CAS-No. | Revision Date |
|----------|----------|---------------|
| n-Hexane | 110-54-3 | 2007-07-01 |
| Toluene | 108-88-3 | 2007-07-01 |

| | | |
|---|----------|------------|
| Aldrin | 309-00-2 | 2007-07-01 |
| γ-1,2,3,4,5,6-Hexachlorocyclohexane | 58-89-9 | 2007-07-01 |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-84-6 | 2007-07-01 |

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

| | CAS-No. | Revision Date |
|---|----------|---------------|
| n-Hexane | 110-54-3 | 2007-07-01 |
| Toluene | 108-88-3 | 2007-07-01 |
| 2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene | 72-55-9 | 1993-04-24 |
| 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane | 50-29-3 | 1993-04-24 |
| Aldrin | 309-00-2 | 2007-07-01 |
| Dieldrin | 60-57-1 | 1993-04-24 |
| (1α,2β,3α,4β,5α,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-85-7 | 1993-04-24 |
| γ-1,2,3,4,5,6-Hexachlorocyclohexane | 58-89-9 | 2007-07-01 |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-84-6 | 2007-07-01 |
| Endrin | 72-20-8 | 2007-07-01 |
| Heptachlor | 76-44-8 | 2007-03-01 |

Pennsylvania Right To Know Components

| | CAS-No. | Revision Date |
|---|------------|---------------|
| n-Hexane | 110-54-3 | 2007-07-01 |
| Toluene | 108-88-3 | 2007-07-01 |
| Endrin aldehyde | 7421-93-4 | 2007-03-01 |
| Endosulfan (α isomer) | 959-98-8 | 1993-04-24 |
| 2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene | 72-55-9 | 1993-04-24 |
| 1α,2α,3α,4β,5α,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-86-8 | 1993-04-24 |
| 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane | 50-29-3 | 1993-04-24 |
| Aldrin | 309-00-2 | 2007-07-01 |
| Dieldrin | 60-57-1 | 1993-04-24 |
| (1α,2β,3α,4β,5α,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-85-7 | 1993-04-24 |
| Methoxychlor | 72-43-5 | 2007-07-01 |
| γ-1,2,3,4,5,6-Hexachlorocyclohexane | 58-89-9 | 2007-07-01 |
| 2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane | 72-54-8 | 1993-04-24 |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-84-6 | 2007-07-01 |
| Endrin | 72-20-8 | 2007-07-01 |
| β-Endosulfan | 33213-65-9 | 1993-04-24 |
| Endosulfan sulfate | 1031-07-8 | 1993-04-24 |
| Heptachlor | 76-44-8 | 2007-03-01 |
| Heptachlor epoxide | 1024-57-3 | 1994-04-01 |

New Jersey Right To Know Components

| | CAS-No. | Revision Date |
|---|-----------|---------------|
| n-Hexane | 110-54-3 | 2007-07-01 |
| Toluene | 108-88-3 | 2007-07-01 |
| 2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene | 72-55-9 | 1993-04-24 |
| 1α,2α,3α,4β,5α,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-86-8 | 1993-04-24 |
| 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane | 50-29-3 | 1993-04-24 |
| Aldrin | 309-00-2 | 2007-07-01 |
| Dieldrin | 60-57-1 | 1993-04-24 |
| (1α,2β,3α,4β,5α,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-85-7 | 1993-04-24 |
| γ-1,2,3,4,5,6-Hexachlorocyclohexane | 58-89-9 | 2007-07-01 |
| 2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane | 72-54-8 | 1993-04-24 |
| (1α,2α,3β,4α,5β,6β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-84-6 | 2007-07-01 |
| Endrin | 72-20-8 | 2007-07-01 |
| Heptachlor | 76-44-8 | 2007-03-01 |
| Heptachlor epoxide | 1024-57-3 | 1994-04-01 |

California Prop. 65 Components

| | | |
|---|--------------------|-----------------------------|
| WARNING! This product contains a chemical known to the State of California to cause cancer. | CAS-No. 72-55-9 | Revision Date 2010-06-11 |
|---|--------------------|-----------------------------|

| | | |
|--|-----------|------------|
| 2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene | | |
| 1 α ,2 α ,3 α ,4 β ,5 α ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-86-8 | 2011-05-20 |
| 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane | 50-29-3 | 2008-06-17 |
| Aldrin | 309-00-2 | 2007-09-28 |
| Dieldrin | 60-57-1 | 2007-09-28 |
| (1 α ,2 β ,3 α ,4 β ,5 α ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-85-7 | 2009-02-01 |
| γ -1,2,3,4,5,6-Hexachlorocyclohexane | 58-89-9 | 2009-02-01 |
| 2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane | 72-54-8 | 2007-09-28 |
| (1 α ,2 α ,3 β ,4 α ,5 β ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane | 319-84-6 | 2009-02-01 |
| Heptachlor | 76-44-8 | 2007-09-28 |
| Heptachlor epoxide | 1024-57-3 | 2007-09-28 |

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

| | | |
|---|----------|---------------|
| | CAS-No. | Revision Date |
| | 108-88-3 | 2009-02-01 |
| Toluene | | |
| 2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene | 72-55-9 | 2010-06-11 |
| 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane | 50-29-3 | 2008-06-17 |
| Endrin | 72-20-8 | 2007-09-28 |
| Heptachlor | 76-44-8 | 2007-09-28 |

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

| | |
|--------------------|---|
| Acute Tox. | Acute toxicity |
| Aquatic Acute | Acute aquatic toxicity |
| Aquatic Chronic | Chronic aquatic toxicity |
| Asp. Tox. | Aspiration hazard |
| Carc. | Carcinogenicity |
| Eye Irrit. | Eye irritation |
| Flam. Liq. | Flammable liquids |
| H225 | Highly flammable liquid and vapour. |
| H300 | Fatal if swallowed. |
| H300 + H310 | Fatal if swallowed or in contact with skin |
| H301 | Toxic if swallowed. |
| H301 + H311 | Toxic if swallowed or in contact with skin |
| H302 | Harmful if swallowed. |
| H302 + H312 + H332 | Harmful if swallowed, in contact with skin or if inhaled |
| H302 + H332 | Harmful if swallowed or if inhaled |
| H304 | May be fatal if swallowed and enters airways. |
| H311 | Toxic in contact with skin. |
| H312 | Harmful in contact with skin. |
| H312 + H332 | Harmful in contact with skin or if inhaled |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H351 | Suspected of causing cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H362 | May cause harm to breast-fed children. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs (/\$/*_ORG_REP_ORAL\$/) through prolonged or repeated exposure if swallowed. |
| H400 | Very toxic to aquatic life. |
| H401 | Toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

| | |
|-------------|--|
| H411 | Toxic to aquatic life with long lasting effects. |
| Lact. | Effects on or via lactation |
| Repr. | Reproductive toxicity |
| Skin Irrit. | Skin irritation |
| STOT RE | Specific target organ toxicity - repeated exposure |
| STOT SE | Specific target organ toxicity - single exposure |

HMIS Rating

| | |
|------------------------|---|
| Health hazard: | 2 |
| Chronic Health Hazard: | * |
| Flammability: | 3 |
| Physical Hazard | 0 |

NFPA Rating

| | |
|--------------------|---|
| Health hazard: | 2 |
| Fire Hazard: | 3 |
| Reactivity Hazard: | 0 |

Further information

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