

SAFETY DATA SHEET

Version 8.5
Revision Date 01/28/2022
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : EPA CLP Organochlorine Pesticide Mix
Product Number : 47426-U
Brand : Supelco

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

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES
Telephone : +1 314 771-5765
Fax : +1 800 325-5052

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-
527-3887 CHEMTREC (International) 24
Hours/day; 7 Days/week

SECTION 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
Acute toxicity, Dermal (Category 4), H312
Skin irritation (Category 2), H315
Carcinogenicity (Category 1A), H350
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), Central nervous system, H373
Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Nervous system, H373
Aspiration hazard (Category 1), H304
Short-term (acute) aquatic hazard (Category 1), H400
Long-term (chronic) aquatic hazard (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 vapor.
H302 + H312	Harmful if swallowed or in contact with skin.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H361	Suspected of damaging fertility or the unborn child.
H362	May cause harm to breast-fed children.
H373	May cause damage to organs (Central nervous system) through prolonged or repeated exposure.
H373	May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled.
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/ vapors/ 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/ doctor.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
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 to extinguish.
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
P501

Store locked up.
Dispose of contents/ container to an approved waste disposal plant.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Component	Classification	Concentration
n-Hexane		
CAS-No. 110-54-3 EC-No. 203-777-6 Index-No. 601-037-00-0 Registration number 01-2119480412-44-XXXX	Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1; Aquatic Acute 2; Aquatic Chronic 2; H225, H315, H361, H336, H373, H304, H401, H411 Concentration limits: >= 5 %: STOT RE 2, H373; >= 20 %: STOT SE 3, H336;	>= 30 - < 50 %
Toluene		
CAS-No. 108-88-3 EC-No. 203-625-9 Index-No. 601-021-00-3 Registration number 01-2119471310-51-XXXX	Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1; Aquatic Acute 2; Aquatic Chronic 3; H225, H315, H361, H336, H373, H304, H401, H412 Concentration limits: 20 %: STOT SE 3, H336;	>= 30 - < 50 %
Endrin ketone		
CAS-No. 53494-70-5 EC-No. 625-032-8	Acute Tox. 2; H300	>= 0.1 - < 1 %
Endosulfan (α isomer)		
CAS-No. 959-98-8	Acute Tox. 2; Acute Tox. 4; Aquatic Acute 1; Aquatic Chronic 1; H300, H330, H312, H400, H410 M-Factor - Aquatic Acute: 10 M-Factor - Aquatic Chronic: 10	>= 0.1 - < 1 %
2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene		
CAS-No. 72-55-9 EC-No. 200-784-6	Acute Tox. 3; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1;	>= 0.1 - < 1 %

		H301, H351, H372, H400, H410 M-Factor - Aquatic Acute: 100	
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, H400, H410 M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 10	>= 0.1 - < 1 %
EC-No.	206-272-9		
Index-No.	602-042-00-0		
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, H400, H410 M-Factor - Aquatic Acute: 100 M-Factor - Aquatic Chronic: 100	>= 0.1 - < 1 %
EC-No.	200-024-3		
Index-No.	602-045-00-7		
Aldrin			
CAS-No.	309-00-2	Acute Tox. 2; Acute Tox. 3; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H300, H311, H351, H372, H400, H410 M-Factor - Aquatic Acute: 100 M-Factor - Aquatic Chronic: 100	>= 0.1 - < 1 %
EC-No.	206-215-8		
Index-No.	602-048-00-3		
Dieldrin			
CAS-No.	60-57-1	Acute Tox. 2; Acute Tox. 1; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H300, H310, H351, H372, H400, H410 M-Factor - Aquatic Acute: 100 M-Factor - Aquatic Chronic: 100	>= 0.1 - < 1 %
EC-No.	200-484-5		
Index-No.	602-049-00-9		
(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, H400, H410 M-Factor - Aquatic Acute: 10	>= 0.1 - < 1 %
EC-No.	206-271-3		
Index-No.	602-042-00-0		

Methoxychlor			
CAS-No.	72-43-5	Acute Tox. 4; Repr. 2; Aquatic Acute 1; Aquatic Chronic 1; H302, H361, H400, H410 M-Factor - Aquatic Acute: 1,000	>= 0.1 - < 1 %
EC-No.	200-779-9		
Gammaxene			
CAS-No.	58-89-9	Acute Tox. 3; Acute Tox. 4; Carc. 1A; Lact. ; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H332, H312, H350, H362, H373, H400, H410 M-Factor - Aquatic Acute: 1 - Aquatic Chronic: 1	>= 0.1 - < 1 %
EC-No.	200-401-2		
Index-No.	602-043-00-6		
2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane			
CAS-No.	72-54-8	Acute Tox. 3; Acute Tox. 4; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H312, H351, H400, H410 M-Factor - Aquatic Acute: 100	>= 0.1 - < 1 %
EC-No.	200-783-0		
(1α,2α,3β,4α,5β,6β)-1,2,3,4,5,6-Hexachlorocyclohexane			
CAS-No.	319-84-6	Acute Tox. 3; Acute Tox. 4; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H312, H351, H400, H410 M-Factor - Aquatic Acute: 10	>= 0.1 - < 1 %
EC-No.	206-270-8		
Index-No.	602-042-00-0		
Chlorindan			
CAS-No.	57-74-9	Acute Tox. 3; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H311, H351, H400, H410 M-Factor - Aquatic Acute: 10 M-Factor - Aquatic Chronic: 10	>= 0.1 - < 1 %
EC-No.	200-349-0		
Index-No.	602-047-00-8		
Endrin			
CAS-No.	72-20-8	Acute Tox. 1; Aquatic Acute 1; Aquatic Chronic 1; H300, H310, H400, H410 M-Factor - Aquatic Acute: 100 - Aquatic Chronic: 100	>= 0.1 - < 1 %
EC-No.	200-775-7		
Index-No.	602-051-00-X		
β-Endosulfan			
CAS-No.	33213-65-9	Acute Tox. 3; Acute Tox.	>= 0.1 - < 1

		2; Aquatic Acute 1; Aquatic Chronic 1; H301, H330, H310, H400, H410 M-Factor - Aquatic Acute: 100 - Aquatic Chronic: 100	%
Endosulfan sulfate			
CAS-No.	1031-07-8	Acute Tox. 2; Aquatic Acute 1; Aquatic Chronic 1; H300, H330, H310, H400, H410 M-Factor - Aquatic Acute: 100 M-Factor - Aquatic Chronic: 100	>= 0.1 - < 1 %
Heptachlor			
CAS-No.	76-44-8	Acute Tox. 3; Carc. 2; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H311, H351, H373, H400, H410 M-Factor - Aquatic Acute: 100 M-Factor - Aquatic Chronic: 100	>= 0.1 - < 1 %
EC-No.	200-962-3		
Index-No.	602-046-00-2		
Heptachlor epoxide			
CAS-No.	1024-57-3	Acute Tox. 2; Carc. 2; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H300, H351, H373, H400, H410 M-Factor - Aquatic Acute: 10	>= 0.1 - < 1 %
EC-No.	213-831-0		
Index-No.	602-063-00-5		
Chlordane			
CAS-No.	5103-71-9	Acute Tox. 3; Acute Tox. 4; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H332, H351, H400, H410 M-Factor - Aquatic Acute: 10 M-Factor - Aquatic Chronic: 10	>= 0.1 - < 1 %
EC-No.	225-825-5		

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

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

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

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Combustible.

Pay attention to flashback.

Risk of dust explosion.

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage stability

Recommended storage temperature

2 - 8 °C

Storage class

Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients 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	Danger of cutaneous absorption		

		TWA	50 ppm 180 mg/m ³	USA. NIOSH Recommended Exposure Limits
		TWA	500 ppm 1,800 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		PEL	50 ppm 180 mg/m ³	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		
Toluene	108-88-3	TWA	100 ppm 375 mg/m ³	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		STEL	150 ppm 560 mg/m ³	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 2020 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/m ³	USA. NIOSH Recommended Exposure Limits
		ST	150 ppm 560 mg/m ³	USA. NIOSH Recommended Exposure Limits
1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane	50-29-3	TWA	1 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		Confirmed animal carcinogen with unknown relevance to humans		
		TWA	0.5 mg/m ³	USA. NIOSH Recommended Exposure Limits
		Potential Occupational Carcinogen		
		TWA	1 mg/m ³	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		
		PEL	1 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		
Aldrin	309-00-2	TWA	0.05 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		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 Potential for dermal absorption		
		TWA	0.25 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		Skin designation		
		PEL	0.25 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		
Dieldrin	60-57-1	TWA	0.1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		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 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		
		PEL	0.25 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		
Methoxychlor	72-43-5	TWA	10 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Not classifiable as a human carcinogen		
		Potential Occupational Carcinogen		

		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
		PEL	10 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
Gammaxene	58-89-9	TWA	0.5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		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		
		PEL	0.5 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		
Chlorindan	57-74-9	TWA	0.5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption		
		TWA	0.5 mg/m3	USA. NIOSH Recommended Exposure Limits
		Potential Occupational Carcinogen 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		
		PEL	0.5 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		
Endrin	72-20-8	TWA	0.1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Not classifiable as a human carcinogen Danger of cutaneous absorption		

		TWA	0.1 mg/m ³	USA. NIOSH Recommended Exposure Limits
		Potential for dermal absorption		
		TWA	0.1 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		Skin designation		
		TWA	0.1 mg/m ³	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		Skin notation		
		PEL	0.1 mg/m ³	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		
Heptachlor	76-44-8	TWA	0.5 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		Skin designation		
		TWA	0.5 mg/m ³	USA. NIOSH Recommended Exposure Limits
		Potential Occupational Carcinogen Potential for dermal absorption		
		PEL	0.05 mg/m ³	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		

Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
n-Hexane	110-54-3	2,5-Hexanedione	0.5 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
	Remarks	End of shift			
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	0.3mg/g Creatinine	Urine	ACGIH - Biological Exposure Indices (BEI)
		End of shift (As soon as possible after exposure ceases)			

8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

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

Skin protection

required

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid
b) Odor	No data available
c) Odor 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	()No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	No data available
l) Vapor density	No data available
m) Density	No data available
Relative density	No data available

- | | |
|--|------------------------------|
| n) Water solubility | No data available |
| o) Partition coefficient:
n-octanol/water | No data available |
| p) Autoignition
temperature | No data available |
| q) Decomposition
temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | Not classified as explosive. |
| t) Oxidizing properties | none |

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Vapors may form explosive mixture with air.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Warming.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture

Acute toxicity

Oral: No data available

Acute toxicity estimate Oral - 552.31 mg/kg
(Calculation method)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

No data available

Mixture causes skin irritation.

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

IARC: 1 - Group 1: Carcinogenic to humans (Gammaxene)

IARC: 2A - Group 2A: Probably carcinogenic to humans (2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene)

IARC: 2A - Group 2A: Probably carcinogenic to humans (1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane)

IARC: 2A - Group 2A: Probably carcinogenic to humans (Aldrin)

IARC: 2A - Group 2A: Probably carcinogenic to humans (Dieldrin)

IARC: 2A - Group 2A: Probably carcinogenic to humans (2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane)

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 ((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 (Chlorindan)

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)

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

Suspected of damaging the unborn child.

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Suspected of damaging fertility.

Specific target organ toxicity - single exposure

Mixture may cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Mixture may cause damage to organs through prolonged or repeated exposure. - Central nervous system

Mixture may cause damage to organs through prolonged or repeated exposure. - Nervous system

Aspiration hazard

Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

11.2 Additional Information

Lung irritation, chest pain, pulmonary edema, Headache, Dizziness, Drowsiness, Unconsciousness, Inhalation studies on toluene have demonstrated the development of inflammatory and ulcerous lesions of the penis, prepuce, and scrotum in animals. Other dangerous properties can not be excluded.

This substance should be handled with particular care.

Handle in accordance with good industrial hygiene and safety practice.

Stomach - Irregularities - Based on Human Evidence

Reproductive system. - Irregularities - Based on Human Evidence

Components

n-Hexane

Acute toxicity

LD50 Oral - Rat - male and female - 16,000 mg/kg
(OECD Test Guideline 401)

LC50 Inhalation - Rat - 4 h - 172 mg/l - vapor

Remarks: (RTECS)

LD50 Dermal - Rabbit - male - > 2,000 mg/kg
(OECD Test Guideline 402)

Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation - 24 h

(OECD Test Guideline 404)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 72 h

(OECD Test Guideline 405)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

Germ cell mutagenicity

No data available

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Species: Mouse - male

Result: negative

Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Suspected human reproductive toxicant Suspected of damaging fertility. Suspected of damaging fertility.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

Inhalation - May cause damage to organs through prolonged or repeated exposure.
- Nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

May be fatal if swallowed and enters airways. Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

Toluene

Acute toxicity

LD50 Oral - Rat - male - 5,580 mg/kg

(Tested according to Directive 92/69/EEC.)

LC50 Inhalation - Rat - male and female - 4 h - 25.7 mg/l - vapor

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - > 5,000 mg/kg

Remarks: (ECHA)

No data available

Skin corrosion/irritation

Skin - Rabbit

Result: irritating - 4 h

Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: slight irritation

(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(Regulation (EC) No. 440/2008, Annex, B.6)

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test

Test system: Mouse lymphoma test

Result: negative

Test Type: Ames test

Test system: S. typhimurium

Result: negative

Species: Rat - Bone marrow

Result: negative
Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure. - Central nervous system

Aspiration hazard

Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

Endrin ketone

Acute toxicity

LD50 Oral - Rat - 10.0 mg/kg

Remarks: (RTECS)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye 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

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Endosulfan (α isomer)

Acute toxicity

Oral: 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 sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

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

2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene**Acute toxicity**

LD50 Oral - Rat - 87.0 mg/kg

Remarks: The value is given in analogy to the following substances: 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane

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 sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Remarks: No data available

The value is given in analogy to the following substances: 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane

Ingestion - Causes damage to organs through prolonged or repeated exposure. **Aspiration hazard**

No data available

1 α ,2 α ,3 α ,4 β ,5 α ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane**Acute toxicity**

LD50 Oral - Rat - 1,000 mg/kg

Remarks: (RTECS)

Inhalation: No data available

Acute toxicity estimate Dermal - Expert judgment - 1,100.1 mg/kg

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: 1,2,3,4,5,6-hexachlorocyclohexanes with the exception of gamma-HCH

Acute toxicity estimate Dermal - 1,100.1 mg/kg

(Expert judgment)

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

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

1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane**Acute toxicity**

LD50 Oral - Rat - 87.0 mg/kg

Remarks: (RTECS)

Inhalation: No data available

LD50 Dermal - Rabbit - 300.0 mg/kg

Remarks: Behavioral:Tremor.

Behavioral:Muscle weakness.

Behavioral: Ataxia.
(RTECS)
No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Ingestion - Causes damage to organs through prolonged or repeated exposure. **Aspiration hazard**

No data available

Aldrin

Acute toxicity

LD50 Oral - Rat - 38 mg/kg
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 sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. **Aspiration hazard**

No data available

Dieldrin

Acute toxicity

LD50 Oral - Rat - 38.3 mg/kg

Inhalation: No data available

Dermal: No data available

LD50 Dermal - 5 mg/kg

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

No data available

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Ingestion - Causes damage to organs through prolonged or repeated exposure. **Aspiration hazard**

No data available

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

Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

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

Methoxychlor**Acute toxicity**

LD50 Oral - Mouse - 510 mg/kg

Remarks: Behavioral:Excitement.

Behavioral:Convulsions or effect on seizure threshold.

Behavioral:Ataxia.

Inhalation: No data available

LD50 Dermal - Rat - > 6,000 mg/kg

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging the unborn child.

Suspected of damaging fertility.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Gammmaxene**Acute toxicity**

LD50 Oral - Rat - 88.0 mg/kg

Remarks: (IUCLID)

LC50 Inhalation - Rat - 4 h - 1,560 mg/m³ - dust/mist

Dermal: No data available

No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Remarks: (IUCLID)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

NTP: The reference note has been added by TD based on the background information of the NTP.

Reproductive toxicity

Studies indicating a hazard to babies during the lactation period

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure. Remarks:

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

No data available

2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane

Acute toxicity

LD50 Oral - Hamster - > 5,000 mg/kg

TDLo Oral - Human - 428.5 mg/kg

Remarks: Endocrine:Adrenal cortex hypoplasia.

TDLo Oral - Rat - 6,000 mg/kg

Remarks: Cardiac:Other changes.

Gastrointestinal:Other changes.

Kidney, Ureter, Bladder:Changes in both tubules and glomeruli.

TDLo Oral - Rat - 14 mg/kg

Remarks: Liver:Changes in liver weight.

Endocrine:Estrogenic.

Musculoskeletal:Other changes.

TDLo Oral - Rat - 2,100 mg/kg

Remarks: Behavioral:Altered sleep time (including change in righting reflex).

Inhalation: No data available

LD50 Dermal - Rabbit - 1,200 mg/kg

Remarks: Behavioral:Excitement.

Behavioral:Convulsions or effect on seizure threshold.

Skin irritation

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

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

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

Acute toxicity

LD50 Oral - Rat - 177.0 mg/kg

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 sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

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

Chlorindan**Acute toxicity**

LD50 Oral - Rat - 200.0 mg/kg

Remarks: (RTECS)

Inhalation: No data available

LD50 Dermal - Rabbit - 780.0 mg/kg

Remarks: (RTECS)

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

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

Endrin**Acute toxicity**

LD50 Oral - Rat - 3.0 mg/kg

Inhalation: No data available

LD50 Dermal - Rat - 12.0 mg/kg

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

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

β-Endosulfan**Acute toxicity**

LD50 Oral - Rat - 240 mg/kg

Remarks: (RTECS)

LC50 Inhalation - Rat - 4 h - 80 mg/m³ - dust/mist

Remarks: (in analogy to similar products)

LD50 Dermal - Rabbit - 90 mg/kg

Remarks: (in analogy to similar products)

Skin corrosion/irritation

No data available

Serious eye damage/eye 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

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Endosulfan sulfate**Acute toxicity**

LD50 Oral - Rat - 18 mg/kg

Remarks: (RTECS)

LC50 Inhalation - Rat - 4 h - 80 mg/m³ - dust/mist

Remarks: (in analogy to similar products)

LD50 Dermal - Rabbit - 90 mg/kg

Remarks: (in analogy to similar products)

Skin corrosion/irritation

No data available

Serious eye damage/eye 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

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Heptachlor**Acute toxicity**

LD50 Oral - Mouse - 68.0 mg/kg

Remarks: (RTECS)

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Inhalation: No data available

LD50 Dermal - Rabbit - 500.0 mg/kg

Remarks: (RTECS)

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure. Remarks:
Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

No data available

Heptachlor epoxide**Acute toxicity**

LD50 Oral - Rat - 15.0 mg/kg

Inhalation: No data available

Dermal: No data available

LD50 Intracerebral - Mouse - 8 mg/kg

Remarks:

Behavioral: Convulsions or effect on seizure threshold.

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected of causing cancer.

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

Chlordane

Acute toxicity

LD50 Oral - Rat - 200 mg/kg

LD50 Oral - Mouse - 145 mg/kg

Acute toxicity estimate Inhalation - 4 h - 1.6 mg/l - dust/mist
(Expert judgment)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Dermal: No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

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

SECTION 12: Ecological information

12.1 Toxicity

Mixture

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 Endocrine disrupting properties

No data available

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12.7 Other adverse effects

No data available

Components

n-Hexane

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 2.5 mg/l - 96 h Remarks: (ECOTOX Database)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 2.1 mg/l - 48 h Remarks: (Lit.)

Toluene

Toxicity to fish	flow-through test LC50 - Oncorhynchus kisutch (coho salmon) - 5.5 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Ceriodaphnia dubia (water flea) - 3.78 mg/l - 48 h (US-EPA)
Toxicity to bacteria	static test EC50 - Bacteria - 84 mg/l - 24 h Remarks: (ECHA)

Endrin ketone

No data available

Endosulfan (α isomer)

No data available

2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 0.01 mg/l - 96 h Remarks: The value is given in analogy to the following substances: 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane
	LC50 - Lepomis macrochirus (Bluegill sunfish) - 0.01 mg/l - 96 h Remarks: The value is given in analogy to the following substances: 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane
	LC50 - Oncorhynchus mykiss (rainbow trout) - 0.003400 mg/l - 96 h Remarks: The value is given in analogy to the following substances: 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane
Toxicity to daphnia and other aquatic invertebrates	Immobilization EC50 - Daphnia magna (Water flea) - 0.00108 mg/l - 48 h Remarks: The value is given in analogy to the following substances: 1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane

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

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 0.02 mg/l - 96 h
Remarks: (ECOTOX Database)
(in analogy to similar products)
The value is given in analogy to the following substances:
1,2,3,4,5,6-hexachlorocyclohexanes with the exception of gamma-HCH

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia pulex (Water flea) - 0.68 mg/l - 48 h
Remarks: (ECOTOX Database)
(in analogy to similar products)
The value is given in analogy to the following substances:
1,2,3,4,5,6-hexachlorocyclohexanes with the exception of gamma-HCH

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

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 0.003400 mg/l - 96.0 h
Remarks: (ECOTOX Database)
(Regulation (EC) No 1272/2008, Annex VI)

Toxicity to daphnia and other aquatic invertebrates Immobilization EC50 - Daphnia magna (Water flea) - 0.00108 mg/l - 48 h
Remarks: (ECOTOX Database)
(Regulation (EC) No 1272/2008, Annex VI)

Aldrin

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 0.01 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 0.03 mg/l - 48 h

Dieldrin

Toxicity to fish mortality LC50 - Carassius auratus (goldfish) - 1.6 μ g/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates Immobilization EC50 - Daphnia magna (Water flea) - 79.5 μ g/l - 48 h

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

No data available

Methoxychlor

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 0.052 mg/l - 96

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	h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0.00078 mg/l - 48 h
Toxicity to algae	EC50 - Scenedesmus quadricauda (Green algae) - 0.6 mg/l - 72 h

Gammaxene

Toxicity to fish	LC50 - Cyprinus carpio (Carp) - 0.2 mg/l - 96.0 h Remarks: (ECOTOX Database)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0.80 - 6.50 mg/l - 48 h Remarks: (ECOTOX Database)
	LOEC - Daphnia - 0.021 mg/l - 7 d Remarks: (ECOTOX Database)
Toxicity to algae	EC50 - Algae - 4.00 mg/l - 72 h Remarks: (ECOTOX Database)

2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane

Toxicity to fish	LC50 - other fish - 1.18 - 9 mg/l - 96.0 h LC50 - Lepomis macrochirus (Bluegill) - 0.04 - 0.05 mg/l - 96.0 h LC50 - Oncorhynchus mykiss (rainbow trout) - 0.06 - 0.09 mg/l - 96.0 h LC50 - Pimephales promelas (fathead minnow) - 3.47 - 5.58 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia pulex (Water flea) - 0.01 mg/l - 48 h

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

Toxicity to fish	LC50 - Carassius auratus (goldfish) - 0.12 mg/l - 48.0 h LC50 - Cyprinus carpio (Carp) - 0.2 mg/l - 48.0 h LC50 - other fish - 1.49 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0.20 - 1.70 mg/l - 48 h
Toxicity to algae	EC50 - No information available. - > 100.00 mg/l - 48 h

Chlorindan

Toxicity to fish	LC50 - Lepomis macrochirus - 0.022 mg/l - 96 h Remarks: (ECOTOX Database)
Toxicity to daphnia and other aquatic	LC50 - Daphnia magna (Water flea) - 0.0984 mg/l - 48 h Remarks: (ECOTOX Database)

invertebrates

Endrin

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - < 0.001 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia pulex (Water flea) - 0.02 mg/l - 48 h

Immobilization EC50 - Daphnia magna (Water flea) - 0.0042 mg/l - 48 h

β-Endosulfan

Toxicity to fish flow-through test LC50 - Fish - 0.0066 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (Water flea) - 0.1 - 1 mg/l - 48 h

Endosulfan sulfate

Toxicity to fish flow-through test LC50 - Fish - 0.0066 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (Water flea) - 0.1 - 1 mg/l - 48 h

Heptachlor

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 0.007 mg/l - 96.0 h
Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (Water flea) - 0.078 mg/l - 48 h
Remarks: (ECOTOX Database)

Heptachlor epoxide

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 0.02 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (Water flea) - 0.24 mg/l - 48 h

Chlordane

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 0.044 mg/l - 96.0 h
Remarks: (in analogy to similar products)

LOEC - Pimephales promelas (fathead minnow) - 0.025 mg/l - 48.0 h
Remarks: (in analogy to similar products)

Toxicity to daphnia
and other aquatic
invertebrates

LOEC - Daphnia magna (Water flea) - 0.07 mg/l - 48 h
Remarks: (in analogy to similar products)

LC50 - Daphnia magna (Water flea) - 0.0984 mg/l - 48 h
Remarks: (in analogy to similar products)

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14: Transport information

DOT (US)

UN number: 1992 Class: 3 (6.1) Packing group: II
Proper shipping name: Flammable liquids, toxic, n.o.s. (n-Hexane, Toluene)
Reportable Quantity (RQ): 500 lbs
Reportable Quantity (RQ): 1 lbs
Reportable Quantity (RQ): 1 lbs
Reportable Quantity (RQ): 1 lbs
Reportable Quantity (RQ): 1 lbs
Reportable Quantity (RQ): 1 lbs

1) Marine pollutant: yes Poison Inhalation Hazard: No

IMDG

UN number: 1992 Class: 3 (6.1) Packing group: II EMS-No: F-E, S-D
Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (Toluene, n-Hexane)
Marine pollutant : yes

IATA

UN number: 1992 Class: 3 (6.1) Packing group: II
Proper shipping name: Flammable liquid, toxic, n.o.s. (Toluene, n-Hexane)

SECTION 15: Regulatory information

SARA 302 Components

This material does not contain any components with a section 302 EHS TPQ.

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	2020-07-14

Toluene	108-88-3	2007-07-01
Gammmaxene	58-89-9	2007-07-01
(1 α ,2 α ,3 β ,4 α ,5 β ,6 β)-1,2,3,4,5,6-Hexachlorocyclohexane	319-84-6	2007-07-01
Chlorindan	57-74-9	2007-07-01
Heptachlor	76-44-8	2007-03-01

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Reportable Quantity	D014 lbs
	D013 lbs
	D020 lbs
	D012 lbs
	D031 lbs

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

SECTION 16: Other information

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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