



EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 18/05/2015

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Supersedes: 18/05/2015

Version: 2.0

ES-5467

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

1.1. Product identifier

Product form : Mixtures
Product name : EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE
Product code : ES-5467

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810
USA

USA: 1-800-322-1174 Int: 1-978-749-8000
cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)
International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2	H225
Acute Tox. 4 (Inhalation)	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
STOT SE 3	H336
Asp. Tox. 1	H304
Aquatic Chronic 3	H412

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11
Xn; R20
Xn; R65
R52/53

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2	H225
Acute Tox. 4 (Inhalation)	H332
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
STOT SE 3	H336
Asp. Tox. 1	H304
Aquatic Acute 3	H402
Aquatic Chronic 3	H412

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Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Central Nervous System. Flammable liquid and vapor. May cause drowsiness or dizziness. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May be fatal if swallowed and enters airways.

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P261 - Avoid breathing fume, mist, spray, vapors.
P264 - Wash both hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.

GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H225 - Highly flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H402 - Harmful to aquatic life
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS-US)

: P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing fume, mist, spray, vapors.
P264 - Wash Both hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P310 - If swallowed: Immediately call a poison center or doctor
P302+P352 - If on skin: Wash with plenty of water
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

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lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center or doctor if you feel unwell
P321 - Specific treatment (see Hazard pictograms (CLP) on this label)
P331 - Do NOT induce vomiting.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water spray to extinguish.
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 Comply with applicable regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
N-NONANE UNLABELED	(CAS-No.) 111-84-2 (EC-No.) 203-913-4	99.03258	R10 Xn; R20 Xn; R65 Xi; R36/38 R67
ISOOCTANE UNLABELED	(CAS-No.) 540-84-1 (EC-No.) 208-759-1 (EC Index-No.) 601-009-00-8 (REACH-no) 01-2119457965-22	0.96364	Xi; R38 N; R50/53 R67 F; R11 Xn; R65
ALPHA-BHC UNLABELED	(CAS-No.) 319-84-6 (EC-No.) 206-270-8 (EC Index-No.) 602-042-00-0	0.00014	T; R25 N; R50/53 Xn; R21 Carc.Cat.3; R40
DELTA-BHC UNLABELED	(CAS-No.) 319-86-8 (EC-No.) 206-272-9 (EC Index-No.) 602-042-00-0	0.00014	Xn; R21 T; R25 N; R51/53
TRANS-NONACHLOR UNLABELED	(CAS-No.) 39765-80-5	0.00014	Xn; R22 N; R50/53
CIS-HEPTACHLOR EPOXIDE UNLABELED	(CAS-No.) 1024-57-3 (EC-No.) 213-831-0 (EC Index-No.) 602-063-00-5	0.00014	T+; R28 N; R50/53
2,4'-DDD UNLABELED	(CAS-No.) 53-19-0 (EC-No.) 200-166-6	0.00014	Carc.Cat.1; R45
4,4'-DDD UNLABELED	(CAS-No.) 72-54-8 (EC-No.) 200-783-0	0.00014	Carc.Cat.3; R40 Xn; R21 T; R25 N; R50/53
HEPTACHLOR UNLABELED	(CAS-No.) 76-44-8 (EC-No.) 200-962-3 (EC Index-No.) 602-046-00-2	0.00014	T+; R27/28 N; R50/53 Carc.Cat.3; R40
CIS-CHLORDANE(ALPHA) UNLABELED	(CAS-No.) 5103-71-9 (EC-No.) 225-825-5	0.00014	Xn; R22 N; R50/53
TRANS-HEPTACHLOR EPOXIDE UNLABELED	(CAS-No.) 28044-83-9 (EC Index-No.) 602-063-00-5	0.00014	T+; R28
HEXACHLOROBENZENE UNLABELED	(CAS-No.) 118-74-1 (EC-No.) 204-273-9 (EC Index-No.) 602-065-00-6	0.00014	Xn; R20 N; R51/53
ENDRIN UNLABELED	(CAS-No.) 72-20-8 (EC-No.) 200-775-7 (EC Index-No.) 602-051-00-X	0.00014	T+; R28 T; R24 N; R50/53

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Name	Product identifier	%	Classification according to Directive 67/548/EEC
4,4'-DDT UNLABELED	(CAS-No.) 50-29-3 (EC-No.) 200-024-3 (EC Index-No.) 602-045-00-7	0.00014	Carc.Cat.3; R40 T; R25 N; R50/53
2,4'-DDT UNLABELED (97% CHEMICAL PURITY)	(CAS-No.) 789-02-6 (EC-No.) 212-332-5	0.00014	Carc.Cat.3; R40 T; R25 T; R48/25 N; R50/53
LINDANE UNLABELED	(CAS-No.) 58-89-9 (EC-No.) 200-401-2 (EC Index-No.) 602-043-00-6	0.00014	T; R25 Xn; R20/21 Xn; R48/22 R64 N; R50/53
MIREX UNLABELED	(CAS-No.) 2385-85-5 (EC-No.) 219-196-6 (EC Index-No.) 602-077-00-1	0.00014	Xn; R21/22 N; R50/53
2,4'-DDE UNLABELED	(CAS-No.) 3424-82-6 (EC-No.) 222-318-0	0.00014	Carc.Cat.3; R40 Xn; R22 N; R50/53
ALDRIN UNLABELED	(CAS-No.) 309-00-2 (EC-No.) 206-215-8 (EC Index-No.) 602-048-00-3	0.00014	Carc.Cat.3; R40 T; R24/25 N; R50/53
DIELDRIN UNLABELED	(CAS-No.) 60-57-1 (EC-No.) 200-484-5 (EC Index-No.) 602-049-00-9	0.00014	T+; R26 T; R24 N; R51/53
PENTACHLOROBENZENE UNLABELED	(CAS-No.) 608-93-5 (EC-No.) 210-172-0 (EC Index-No.) 602-074-00-5	0.00014	Xn; R22 N; R50/53
CIS-NONACHLOR UNLABELED	(CAS-No.) 5103-73-1	0.00014	Xn; R22 N; R50
BETA-BHC UNLABELED	(CAS-No.) 319-85-7 (EC-No.) 206-271-3 (EC Index-No.) 602-042-00-0	0.00014	N; R51/53
TRANS-CHLORDANE (GAMMA) UNLABELED	(CAS-No.) 5103-74-2 (EC-No.) 226-938-2	0.00014	Xn; R22 Carc.Cat.3; R40 N; R50/53
OXYCHLORDANE UNLABELED	(CAS-No.) 27304-13-8	0.00014	Carc.Cat.3; R40 T; R25 N; R50/53
KEPONE (CHLORDECONE) UNLABELED	(CAS-No.) 143-50-0 (EC-No.) 205-601-3 (EC Index-No.) 606-019-00-6	0.00014	T; R24/25 Carc.Cat.3; R40 N; R50/53
ENDOSULFAN I UNLABELED	(CAS-No.) 959-98-8	0.00014	T+; R26/28 N; R50/53 Xn; R21
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
N-NONANE UNLABELED	(CAS-No.) 111-84-2 (EC-No.) 203-913-4	99.03258	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 Asp. Tox. 1, H304
ISOOCTANE UNLABELED	(CAS-No.) 540-84-1 (EC-No.) 208-759-1 (EC Index-No.) 601-009-00-8 (REACH-no) 01-2119457965-22	0.96364	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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ALPHA-BHC UNLABELED	(CAS-No.) 319-84-6 (EC-No.) 206-270-8 (EC Index-No.) 602-042-00-0	0.00014	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
DELTA-BHC UNLABELED	(CAS-No.) 319-86-8 (EC-No.) 206-272-9 (EC Index-No.) 602-042-00-0	0.00014	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
TRANS-NONACHLOR UNLABELED	(CAS-No.) 39765-80-5	0.00014	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
CIS-HEPTACHLOR EPOXIDE UNLABELED	(CAS-No.) 1024-57-3 (EC-No.) 213-831-0 (EC Index-No.) 602-063-00-5	0.00014	Acute Tox. 2 (Oral), H300 Carc. 2, H351 STOT RE 2, H373 Aquatic Chronic 1, H410
2,4'-DDD UNLABELED	(CAS-No.) 53-19-0 (EC-No.) 200-166-6	0.00014	Carc. 1A, H350
4,4'-DDD UNLABELED	(CAS-No.) 72-54-8 (EC-No.) 200-783-0	0.00014	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
HEPTACHLOR UNLABELED	(CAS-No.) 76-44-8 (EC-No.) 200-962-3 (EC Index-No.) 602-046-00-2	0.00014	Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Dermal), H310 Carc. 2, H351 Aquatic Chronic 1, H410
CIS-CHLORDANE(ALPHA) UNLABELED	(CAS-No.) 5103-71-9 (EC-No.) 225-825-5	0.00014	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
TRANS-HEPTACHLOR EPOXIDE UNLABELED	(CAS-No.) 28044-83-9 (EC Index-No.) 602-063-00-5	0.00014	Acute Tox. 2 (Oral), H300 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
HEXACHLOROBENZENE UNLABELED	(CAS-No.) 118-74-1 (EC-No.) 204-273-9 (EC Index-No.) 602-065-00-6	0.00014	Carc. 1B, H350 STOT SE 1, H370 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ENDRIN UNLABELED	(CAS-No.) 72-20-8 (EC-No.) 200-775-7 (EC Index-No.) 602-051-00-X	0.00014	Acute Tox. 1 (Oral), H300 Acute Tox. 2 (Dermal), H310 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
4,4'-DDT UNLABELED	(CAS-No.) 50-29-3 (EC-No.) 200-024-3 (EC Index-No.) 602-045-00-7	0.00014	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 STOT SE 1, H370 STOT RE 1, H372 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
2,4'-DDT UNLABELED (97% CHEMICAL PURITY)	(CAS-No.) 789-02-6 (EC-No.) 212-332-5	0.00014	Acute Tox. 3 (Oral), H301 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
LINDANE UNLABELED	(CAS-No.) 58-89-9 (EC-No.) 200-401-2 (EC Index-No.) 602-043-00-6	0.00014	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 STOT RE 2, H373 Lact., H362 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
MIREX UNLABELED	(CAS-No.) 2385-85-5 (EC-No.) 219-196-6 (EC Index-No.) 602-077-00-1	0.00014	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 Repr. 2, H361 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

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2,4'-DDE UNLABELED	(CAS-No.) 3424-82-6 (EC-No.) 222-318-0	0.00014	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ALDRIN UNLABELED	(CAS-No.) 309-00-2 (EC-No.) 206-215-8 (EC Index-No.) 602-048-00-3	0.00014	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
DIELDRIN UNLABELED	(CAS-No.) 60-57-1 (EC-No.) 200-484-5 (EC Index-No.) 602-049-00-9	0.00014	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
PENTACHLOROBENZENE UNLABELED	(CAS-No.) 608-93-5 (EC-No.) 210-172-0 (EC Index-No.) 602-074-00-5	0.00014	Flam. Sol. 1, H228 Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CIS-NONACHLOR UNLABELED	(CAS-No.) 5103-73-1	0.00014	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400
BETA-BHC UNLABELED	(CAS-No.) 319-85-7 (EC-No.) 206-271-3 (EC Index-No.) 602-042-00-0	0.00014	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
TRANS-CHLORDANE (GAMMA) UNLABELED	(CAS-No.) 5103-74-2 (EC-No.) 226-938-2	0.00014	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
OXYCHLORDANE UNLABELED	(CAS-No.) 27304-13-8	0.00014	Acute Tox. 3 (Oral), H301 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
KEPONE (CHLORDECONE) UNLABELED	(CAS-No.) 143-50-0 (EC-No.) 205-601-3 (EC Index-No.) 606-019-00-6	0.00014	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410
ENDOSULFAN I UNLABELED	(CAS-No.) 959-98-8	0.00014	Acute Tox. 2 (Oral), H300 Acute Tox. 4 (Dermal), H312 Acute Tox. 2 (Inhalation:dust,mist), H330 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Name	Product identifier	%	GHS-US classification
N-NONANE UNLABELED	(CAS-No.) 111-84-2	99.03258	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 Asp. Tox. 1, H304

Full text of R- and H- phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: May cause drowsiness or dizziness.
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Symptoms/effects after inhalation	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide. Alcohol resistant foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Highly flammable liquid and vapor.
Explosion hazard	: May form flammable/explosive vapor-air mixture.
Reactivity	: Flammable liquid and vapor. Vapors may form flammable mixture with air.

5.3. Advice for firefighters

Firefighting instructions	: Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Wear personal protective equipment. Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing fume, gas, mist, spray, vapors. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Dike and contain spill. Dispose as hazardous waste. Comply with local regulations for disposal.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling	: No open flames. No smoking. Use only non-sparking tools. Use only outdoors or in a well-ventilated area.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.
Storage conditions	: Store at room temperature away from light and moisture.
Incompatible materials	: Heat sources.

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	CNS impair
HEPTACHLOR UNLABELED (76-44-8)		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.5 mg/m ³ USA. NIOSH Recommended Exposure Limits
USA NIOSH	Remark (NIOSH)	Potential Occupational Carcinogen. See Appendix A. Potential for dermal absorption.
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.5 mg/m ³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants. California permissible exposure limits for chemical contaminants (Title 8, Article 107)
USA OSHA	Remark (OSHA)	Skin designation
HEXACHLOROBENZENE UNLABELED (118-74-1)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0 mg/m ³ Central Nervous System impairment. Porphyrin effects. Skin damage.
ENDRIN UNLABELED (72-20-8)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0.1 mg/m ³ Central Nervous System impairment, Headache, Liver damage
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.1 mg/m ³ Danger of cutaneous absorption, not classifiable a a human carcinogen
4,4'-DDT UNLABELED (50-29-3)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³ Liver damage. Confirmed animal carcinogen with unknown relevance to humans.
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³ Skin notation
ALDRIN UNLABELED (309-00-2)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0.05 mg/m ³ Skin contact does contribute to exposure. Confirmed animal carcinogen.
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.25 mg/m ³ Skin notation
DIELDRIN UNLABELED (60-57-1)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0.25 mg/m ³ Liver damage. Central Nervous System convulsion. Danger of cutaneous absorption
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.25 mg/m ³ Skin notation
KEPONE (CHLORDECONE) UNLABELED (143-50-0)		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.001 mg/m ³ Remarks: Potential Occupational Carcinogen ; USA. NIOSH Recommended Exposure Limits
N-NONANE UNLABELED (111-84-2)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	CNS impair
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	1050 mg/m ³ USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (TWA) (ppm)	200 ppm USA. NIOSH Recommended Exposure Limits
USA NIOSH	Remark (NIOSH)	Central Nervous System impairment
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1050 mg/m ³ USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	1050 California permissible exposure limits for chemical contaminants.

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N-NONANE UNLABELED (111-84-2)		
USA OSHA	OSHA PEL (Ceiling) (ppm)	200 ppm California permissible exposure limits for chemical contaminants.
ISOOCTANE UNLABELED (540-84-1)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	300.00000000 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract irritation

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Personal protective equipment : Protective clothing. Protective goggles. Gloves. Self-contained breathing apparatus.



Materials for protective clothing : Wear suitable protective clothing and gloves.
Hand protection : Wear suitable protective clothing and gloves.
Eye protection : Chemical goggles or face shield. Chemical goggles or safety glasses.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.
Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.

Physical state : Liquid
Appearance : Liquid
Color : Colorless
Odor : No data available
Odor threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : Highly flammable liquid and vapor
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : No data available
Solubility : No data available
Log Pow : 5.65
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosion limits : No data available

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor. Vapors may form flammable mixture with air.

10.2. Chemical stability

See storage and expiration date on CoA.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Open flame. Direct sunlight.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation: Harmful if inhaled.

EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE	
LC50 inhalation rat (mg/l)	23760 mg/m ³ male - 4 h
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
Skin corrosion/irritation, Dermal, rat	Result: Skin Irritation (Draize Test)
Additional information	: S. Typhimurium Result: negative
ALPHA-BHC UNLABELED (319-84-6)	
LD50 oral rat	177 mg/kg
ATE CLP (oral)	177.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
DELTA-BHC UNLABELED (319-86-8)	
LD50 oral rat	1000 mg/kg
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
TRANS-NONACHLOR UNLABELED (39765-80-5)	
LD50 oral rat	500 mg/kg
ATE CLP (oral)	500.000 mg/kg body weight
CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3)	
LD50 oral rat	15 mg/kg
ATE CLP (oral)	15.000 mg/kg body weight
Additional information	LD50 Oral Mouse 39 mg/kg. LD50 Oral Rabbit 144 mg/kg
2,4'-DDD UNLABELED (53-19-0)	
LD50 oral rat	> 5000 mg/kg
4,4'-DDD UNLABELED (72-54-8)	
LD50 oral	> 5000 mg/kg - Hamster
LD50 dermal	1200 mg/kg - Rabbit. Remarks: Behavioral:Excitement. Behavioral:Convulsions or effect on seizure threshold. Skin irritation
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
TDLo Oral - Human - 428.5 mg/kg Remarks	Endocrine: Adrenal cortex hyperplasia.
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).
HEPTACHLOR UNLABELED (76-44-8)	
LD50 oral rat	40 mg/kg
LD50 dermal rat	119 mg/kg

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HEPTACHLOR UNLABELED (76-44-8)	
ATE CLP (oral)	40.000 mg/kg body weight
ATE CLP (dermal)	50.000 mg/kg body weight
CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9)	
LD50 oral rat	500 mg/kg
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
TRANS-HEPTACHLOR EPOXIDE UNLABELED (28044-83-9)	
LD50 oral rat	15 mg/kg
ATE CLP (oral)	15.000 mg/kg body weight
HEXACHLOROBENZENE UNLABELED (118-74-1)	
LD50 oral rat	10000 mg/kg
LC50 inhalation rat (mg/l)	3600 mg/m ³
Additional information	LD50 Inhalation Mouse 4,000 mg/m ³ . LC50 Inhalation Rabbit 1,800 mg/m ³ . LD50 Oral Mouse 4,000 mg/kg. LD50 Oral rabbit 2,600 mg/kg
ENDRIN UNLABELED (72-20-8)	
LD50 oral rat	3 mg/kg
LD50 dermal rabbit	60 mg/kg
ATE CLP (oral)	3.000 mg/kg body weight
ATE CLP (dermal)	60.000 mg/kg body weight
4,4'-DDT UNLABELED (50-29-3)	
LD50 oral rat	87 mg/kg
LD50 dermal rabbit	300 mg/kg
ATE CLP (oral)	87.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6)	
ATE CLP (oral)	100.000 mg/kg body weight
LINDANE UNLABELED (58-89-9)	
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
MIREX UNLABELED (2385-85-5)	
LD50 oral rat	235 mg/kg
ATE CLP (oral)	235.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
2,4'-DDE UNLABELED (3424-82-6)	
LD50 oral rat	880 mg/kg
ATE CLP (oral)	880.000 mg/kg body weight
ALDRIN UNLABELED (309-00-2)	
LD50 oral rat	39 mg/kg
ATE CLP (oral)	39.000 mg/kg body weight
ATE CLP (dermal)	5.000 mg/kg body weight
DIELDRIN UNLABELED (60-57-1)	
LD50 oral rat	38.3 mg/kg
ATE CLP (oral)	5.000 mg/kg body weight
ATE CLP (dermal)	5.000 mg/kg body weight
ATE CLP (dust, mist)	0.050 mg/l/4h
PENTACHLOROBENZENE UNLABELED (608-93-5)	
LD50 oral rat	1080 mg/kg
ATE CLP (oral)	1080.000 mg/kg body weight

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CIS-NONACHLOR UNLABELED (5103-73-1)	
ATE CLP (oral)	500.000 mg/kg body weight
BETA-BHC UNLABELED (319-85-7)	
LD50 oral rat	6000 mg/kg
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2)	
LD50 oral rat	1100 mg/kg
LD50 oral	275 mg/kg mouse
OXYCHLORDANE UNLABELED (27304-13-8)	
LD50 oral rat	457 mg/kg
ATE CLP (oral)	100.000 mg/kg body weight
KEPONE (CHLORDECONE) UNLABELED (143-50-0)	
LD50 oral rat	91.3 mg/kg
LD50 dermal rabbit	345 mg/kg
ATE CLP (oral)	91.300 mg/kg body weight
ATE CLP (dermal)	345.000 mg/kg body weight
N-NONANE UNLABELED (111-84-2)	
LC50 inhalation rat (mg/l)	23760 mg/m ³ male - 4 h
ATE CLP (vapors)	11.000 mg/l/4h
Skin corrosion/irritation, Dermal, rat	Result: Skin Irritation (Draize Test)
Additional information	: S. Typhimurium Result: negative
ISOOCTANE UNLABELED (540-84-1)	
LD50 oral rat	> 5000 mg/kg (OECD Test Guideline 401)
LD50 dermal rabbit	> 2000 mg/kg (OECD Test Guideline 402)
LC50 inhalation rat (mg/l)	> 33.52 mg/l/4h (OECD Test Guideline 403)
ENDOSULFAN I UNLABELED (959-98-8)	
ATE CLP (oral)	5.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (dust, mist)	0.050 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential Adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.
Symptoms/effects after inhalation	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Ecology - water	: Harmful to aquatic life with long lasting effects.

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ALPHA-BHC UNLABELED (319-84-6)	
LC50 fish 1	0.12 mg/l <i>Carassius auratus</i> (Goldfish) - 48 h
LC50 other aquatic organisms 1	1.49 mg/l Other fish - 96 h
EC50 Daphnia 1	0.2 - 1.7 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
LC50 fish 2	0.2 mg/l <i>Cyprinus carpio</i> (Carp) - 48 h
ErC50 (algae)	> 100 mg/l No information available - 48 h
DELTA-BHC UNLABELED (319-86-8)	
LC50 fish 1	2.83 mg/l other fish -96h
TRANS-NONACHLOR UNLABELED (39765-80-5)	
EC50 Daphnia 1	0.022 mg/l <i>Daphnia pulex</i> (Water flea) - 48 h
CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3)	
LC50 fish 1	0.02 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) -96h
EC50 Daphnia 1	0.24 mg/l <i>Daphnia magna</i> (Water flea) -48h
4,4'-DDD UNLABELED (72-54-8)	
LC50 fish 1	0.04 - 0.05 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96.0 h
LC50 other aquatic organisms 1	0.06 - 0.09 mg/l - <i>Oncorhynchus mykiss</i> (rainbow trout) - 96.0 h
EC50 Daphnia 1	0.01 mg/l <i>Daphnia pulex</i> (Water flea) - 48 h
LC50 fish 2	1.18 - 9 mg/l - other fish - 96.0 h
LC50 other aquatic organisms 2	3.47 - 5.58 mg/l - <i>Pimephales promelas</i> (fathead minnow) - 96.0 h
HEPTACHLOR UNLABELED (76-44-8)	
LC50 fish 1	0.007 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h
EC50 Daphnia 1	0.078 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9)	
LC50 fish 1	0.0074 mg/l <i>Lepomis macrochirus</i> (Bluegill) -96h
HEXACHLOROBENZENE UNLABELED (118-74-1)	
LC50 fish 1	7.6 mg/l <i>Lepomis macrochirus</i> (Bluegill) -96h
EC50 Daphnia 1	> 0.005 mg/l <i>Daphnia magna</i> (Water flea) -48h
NOEC (chronic)	> 0.0048 mg/l <i>Pimephales promelas</i> (fathead minnow) -96h
ENDRIN UNLABELED (72-20-8)	
LC50 fish 1	< 0.001 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) -96h
EC50 Daphnia 1	0.02 mg/l <i>Daphnia pulex</i> (Water flea) -48h
Additional information	Immobilization EC50- <i>Daphnia magna</i> (water flea)-0.0042 mg/l-48h
4,4'-DDT UNLABELED (50-29-3)	
LC50 fish 1	0.01 mg/l <i>Pimephales promelas</i> (fathead minnow) - 96 h
EC50 Daphnia 1	0.00108 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
ErC50 (algae)	> 20 mg/l <i>Scenedesmus quadricauda</i> (Green Algae) - 7 d
ErC50 (other aquatic plants)	113 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 3 d
NOEC (chronic)	113 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 3 d
2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6)	
LC50 fish 1	0.03 mg/l Other fish - 24 h
LINDANE UNLABELED (58-89-9)	
LC50 fish 1	0.2 mg/l <i>Cyprinus carpio</i> (Carp) - 96 h
EC50 Daphnia 1	0.8 - 6.5 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
ErC50 (algae)	4 mg/l 72 h
NOEC chronic fish	0.056 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 3 d
MIREX UNLABELED (2385-85-5)	
LC50 fish 1	0.023 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) -96h
EC50 Daphnia 1	2.6 mg/l <i>Daphnia magna</i> (Water flea) -2.6mg/L-48h
ALDRIN UNLABELED (309-00-2)	
LC50 fish 1	0.01 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h
EC50 Daphnia 1	0.03 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
DIELDRIN UNLABELED (60-57-1)	
LC50 fish 1	1.6 mg/l <i>Carassius auratus</i> (goldfish) - 96 h
EC50 Daphnia 1	79.5 mg/l <i>Daphnia magna</i> (Water flea) - 48 h

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PENTACHLOROBENZENE UNLABELED (608-93-5)	
LC50 fish 1	0.247 mg/l Pimephales promelas (fathead minnow) -96h
BETA-BHC UNLABELED (319-85-7)	
LC50 fish 1	1.6 mg/l Poecilia reticulata (guppy) -96h
TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2)	
LC50 fish 1	0.05 mg/l Lepomis macrochirus - 96 h
KEPONE (CHLORDECONE) UNLABELED (143-50-0)	
LC50 fish 1	0.03 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	0.26 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	0.35 µg/l Chlorococcum sp. - 7 d
ENDOSULFAN I UNLABELED (959-98-8)	
LC50 fish 1	0.2 µg/l Other fish - 21 d

12.2. Persistence and degradability

EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE	
Persistence and degradability	May cause long-term adverse effects in the environment.
PENTACHLOROBENZENE UNLABELED (608-93-5)	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE	
Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.
ALPHA-BHC UNLABELED (319-84-6)	
BCF fish 1	0.8 mg/l Other - 96 h
Bioconcentration factor (BCF REACH)	250
Log Pow	3.8
DELTA-BHC UNLABELED (319-86-8)	
Bioconcentration factor (BCF REACH)	326
Bioaccumulative potential	Bioaccumulation other fish-33d.
TRANS-NONACHLOR UNLABELED (39765-80-5)	
Log Pow	6.35
CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3)	
Bioconcentration factor (BCF REACH)	14400
Log Pow	5.4
Bioaccumulative potential	Bioaccumulative potential: Pimephales promelas (fathead minnow)- 32d.
4,4'-DDD UNLABELED (72-54-8)	
Log Pow	6.02
Bioaccumulative potential	Indication of bioaccumulation.
HEPTACHLOR UNLABELED (76-44-8)	
BCF fish 1	0.00043 mg/l Pimephales promelas (fathead minnow) - 276 d
Bioconcentration factor (BCF REACH)	23814
CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9)	
Bioconcentration factor (BCF REACH)	332
Bioaccumulative potential	Lepomis macrochirus (Bluegill)-24h.
HEXACHLOROBENZENE UNLABELED (118-74-1)	
Bioconcentration factor (BCF REACH)	22000
Bioaccumulative potential	Bioaccumulative potential: Pimephales promelas (fathead minnow)- 32d.
ENDRIN UNLABELED (72-20-8)	
Bioconcentration factor (BCF REACH)	13000
Log Pow	5.2
Bioaccumulative potential	Pimephales promela (fathead minnow)-56d-0.63 mg/l.
4,4'-DDT UNLABELED (50-29-3)	
BCF fish 1	Oncorhynchus mykiss (rainbow trout) - 20 d
Bioconcentration factor (BCF REACH)	46670

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4,4'-DDT UNLABELED (50-29-3)	
Log Pow	6.91
2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6)	
Bioconcentration factor (BCF REACH)	37000 Pimephales promelas (fathead minnow) - 32 d
MIREX UNLABELED (2385-85-5)	
Bioconcentration factor (BCF REACH)	18100
Log Pow	5.28
Bioaccumulative potential	Bioaccumulative potential: Pimephales promelas (fathead minnow)- 32d.
2,4'-DDE UNLABELED (3424-82-6)	
Log Pow	5.58
ALDRIN UNLABELED (309-00-2)	
Log Pow	6.5
PENTACHLOROBENZENE UNLABELED (608-93-5)	
Bioaccumulative potential	Pimephales promelas (fathead minnow)-31d.
CIS-NONACHLOR UNLABELED (5103-73-1)	
Log Pow	2.794
BETA-BHC UNLABELED (319-85-7)	
Bioconcentration factor (BCF REACH)	500
Log Pow	3.78
Bioaccumulative potential	Bioaccumulative potential Cyprinus carpio (Carp)-35d-0.05 mg/l.
N-NONANE UNLABELED (111-84-2)	
Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.
ISOOCTANE UNLABELED (540-84-1)	
Log Pow	4.6
ENDOSULFAN I UNLABELED (959-98-8)	
Bioconcentration factor (BCF REACH)	10994

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : Disposal must be done according to official regulations. Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No.(DOT) : 1920

DOT NA no. UN1920

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Nonanes

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE

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Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : III - Minor Danger

DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 242

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : III

Class (ADR) : 3 - Flammable liquid

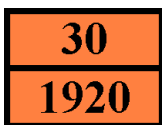
Hazard identification number (Kemler No.) : 30

Classification code (ADR) : F1

Hazard labels (ADR) : 3 - Flammable liquids



Orange plates



Tunnel restriction code (ADR) : D/E

Limited quantities (ADR) : 5l

EAC : 3Y

Excepted quantities (ADR) : E1

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

MFAG-No : 128

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

Civil Aeronautics Law : Flammable liquids

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14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
N-NONANE UNLABELED (111-84-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.

15.2. International regulations

CANADA

EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE	
Listed on the Canadian DSL (Domestic Substances List)	
N-NONANE UNLABELED (111-84-2)	
Listed on the Canadian DSL (Domestic Substances List)	

15.2.1. National regulations

No additional information available

15.3. US State regulations

EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE()				
U.S. - California - Proposition 65 - Carcinogens List	No			
U.S. - California - Proposition 65 - Developmental Toxicity	No			
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No			
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No			
State or local regulations	U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances			
N-NONANE UNLABELED (111-84-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

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N-NONANE UNLABELED (111-84-2)

State or local regulations

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
 U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - Massachusetts - Right To Know List
 U.S. - Pennsylvania - RTK (Right to Know) List
 U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-phrases:

Acute Tox. 1 (Dermal)	Acute toxicity (dermal) Category 1
Acute Tox. 1 (Oral)	Acute toxicity (oral) Category 1
Acute Tox. 2 (Dermal)	Acute toxicity (dermal) Category 2
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Flam. Sol. 1	Flammable solids Category 1
Lact.	Reproductive toxicity (Lact.)
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H228	Flammable solid
H300	Fatal if swallowed
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H310	Fatal in contact with skin
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H350	May cause cancer

EXPANDED POPS PESTICIDES PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE/ISOOCTANE

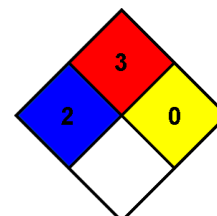
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H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H362	May cause harm to breast-fed children
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
R10	Flammable
R11	Highly flammable
R20	Harmful by inhalation
R20/21	Harmful by inhalation and in contact with skin
R21	Harmful in contact with skin
R21/22	Harmful in contact with skin and if swallowed
R22	Harmful if swallowed
R24	Toxic in contact with skin
R24/25	Toxic in contact with skin and if swallowed
R25	Toxic if swallowed
R26	Very toxic by inhalation
R26/28	Very toxic by inhalation and if swallowed
R27/28	Very toxic in contact with skin and if swallowed
R28	Very toxic if swallowed
R36/38	Irritating to eyes and skin
R38	Irritating to skin
R40	Limited evidence of a carcinogenic effect
R45	May cause cancer
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed
R48/25	Toxic: danger of serious damage to health by prolonged exposure if swallowed
R50	Very toxic to aquatic organisms
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R64	May cause harm to breastfed babies
R65	Harmful: may cause lung damage if swallowed
R67	Vapors may cause drowsiness and dizziness
F	Highly flammable
N	Dangerous for the environment
T	Toxic
T+	Very toxic
Xi	Irritant
Xn	Harmful

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

- Health : 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability : 3 Serious Hazard
- Physical : 0 Minimal Hazard

CIL Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product