



EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 9/25/2015 Revision date: 9/8/2023 Supersedes: 10/10/2019 Version: 2.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE
Product code : ES-5464-CS5

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Cambridge Isotope Laboratories, Inc.
50 Frontage Rd
01810
ANDOVER, MA, 01810
USA
T 1-800-322-1174
cilsales@isotope.com - www.isotope.com

1.4. Emergency telephone number

Emergency number : 1-703-741-5970
Chemtrec 1-800-424-9300 24 hours

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

| | | |
|--|------|---|
| Flammable liquids Category 3 | H226 | Flammable liquid and vapor |
| Acute toxicity (inhalation) Category 4 | H332 | Harmful if inhaled |
| Skin corrosion/irritation Category 2 | H315 | Causes skin irritation |
| Specific target organ toxicity – Single exposure, Category 3, Narcosis | H336 | May cause drowsiness or dizziness |
| Aspiration hazard Category 1 | H304 | May be fatal if swallowed and enters airways |
| Hazardous to the aquatic environment – Chronic Hazard Category 3 | H412 | Harmful to aquatic life with long lasting effects |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H226 - Flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H332 - Harmful if inhaled

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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|-----------------------------------|--|
| Precautionary statements (GHS US) | : H336 - May cause drowsiness or dizziness H412 - Harmful to aquatic life with long lasting effects P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. heat, hot surfaces, open flames, sparks 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. 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. 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 which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|--------------------|--------------------|------------------|--|
| N-NONANE UNLABELED | CAS-No.: 111-84-2 | 99.78721443 5 | 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 |

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Safety Data Sheet

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| Name | Product identifier | % | GHS US classification |
|--|---------------------|------------------|---|
| ISOOCTANE UNLABELED | CAS-No.: 540-84-1 | 0.211955421 4 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 4,4'-DDE UNLABELED | CAS-No.: 72-55-9 | 0.0000279 | Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| ENDOSULFAN II UNLABELED | CAS-No.: 33213-65-9 | 0.0000279 | Acute Tox. 3 (Oral), H301 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| HEXACHLOROBENZENE UNLABELED | CAS-No.: 118-74-1 | 0.000027857 2 | Carc. 1B, H350 STOT SE 1, H370 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| PENTACHLOROBENZENE UNLABELED | CAS-No.: 608-93-5 | 0.000027857 2 | Flam. Sol. 1, H228 Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| ALDRIN UNLABELED | CAS-No.: 309-00-2 | 0.000027857 2 | 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 |
| DIELDRIN UNLABELED | CAS-No.: 60-57-1 | 0.000027857 2 | 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 |
| ENDRIN UNLABELED | CAS-No.: 72-20-8 | 0.000027857 2 | Acute Tox. 1 (Oral), H300 Acute Tox. 2 (Dermal), H310 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 4,4'-DDT UNLABELED | CAS-No.: 50-29-3 | 0.000027857 2 | 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 Aquatic Chronic 1, H410 |
| 2,4'-DDT UNLABELED (97% CHEMICAL PURITY) | CAS-No.: 789-02-6 | 0.000027857 2 | Acute Tox. 3 (Oral), H301 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

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Safety Data Sheet

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| Name | Product identifier | % | GHS US classification |
|-----------------------------------|---------------------|------------------|--|
| CIS-CHLORDANE(ALPHA) UNLABELED | CAS-No.: 5103-71-9 | 0.000027857 2 | Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| TRANS-NONACHLOR UNLABELED | CAS-No.: 39765-80-5 | 0.000027857 2 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| CIS-NONACHLOR UNLABELED | CAS-No.: 5103-73-1 | 0.000027857 2 | Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 |
| TRANS-CHLORDANE (GAMMA) UNLABELED | CAS-No.: 5103-74-2 | 0.000027857 2 | Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 2,4'-DDD UNLABELED | CAS-No.: 53-19-0 | 0.000027857 2 | Carc. 2, H351 |
| 2,4'-DDE UNLABELED | CAS-No.: 3424-82-6 | 0.000027857 2 | Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 4,4'-DDD UNLABELED | CAS-No.: 72-54-8 | 0.000027857 2 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Chronic 1, H410 |
| LINDANE UNLABELED | CAS-No.: 58-89-9 | 0.000027857 2 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Lact., H362 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| MIREX UNLABELED | CAS-No.: 2385-85-5 | 0.000027857 2 | Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| ALPHA-BHC UNLABELED | CAS-No.: 319-84-6 | 0.000027857 2 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

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Safety Data Sheet

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| Name | Product identifier | % | GHS US classification |
|--|----------------------------------|------------------|--|
| DELTA-BHC UNLABELED | CAS-No.: 319-86-8 | 0.000027857 2 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| HEPTACHLOR UNLABELED | CAS-No.: 76-44-8 | 0.000027857 2 | Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Carc. 2, H351 Aquatic Chronic 1, H410 |
| CIS-HEPTACHLOR EPOXIDE UNLABELED | CAS-No.: 1024-57-3 | 0.000027857 2 | Acute Tox. 2 (Oral), H300 Carc. 2, H351 STOT RE 2, H373 Aquatic Chronic 1, H410 |
| TRANS-HEPTACHLOR EPOXIDE UNLABELED | CAS-No.: 28044-83-9 | 0.000027857 2 | Acute Tox. 2 (Oral), H300 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| BETA-BHC UNLABELED | CAS-No.: 319-85-7 | 0.000027857 2 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| OXYCHLORDANE UNLABELED | CAS-No.: 27304-13-8 | 0.000027857 2 | Acute Tox. 4 (Oral), H302 |
| KEPONE (CHLORDECONE) UNLABELED | CAS-No.: 143-50-0 | 0.000027857 2 | Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| ENDOSULFAN I UNLABELED | CAS-No.: 959-98-8 | 0.000027857 2 | Acute Tox. 1 (Oral), H300 Acute Tox. 4 (Dermal), H312 Acute Tox. 1 (Inhalation), H330 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| HEXACHLOROBENZENE (¹³ C ₆ , 99%) | CAS-No.: 118-74-1 | 0.000002785 7 | Carc. 1B, H350 STOT RE 1, H372 Aquatic Chronic 1, H410 |
| ALDRIN (¹³ C ₁₂ , 99%) | CAS-No.: 309-00-2 (Unlabeled) | 0.000002785 7 | 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 (¹³ C ₆ , 99%) | CAS-No.: 608-93-5 (Unlabeled) | 0.000002785 7 | Flam. Sol. 1, H228 Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

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Safety Data Sheet

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| Name | Product identifier | % | GHS US classification |
|--------------------------------------|------------------------------------|--------------|---|
| DIELDRIN (13C12, 98-99%) | CAS-No.: 60-57-1 (Unlabeled) | 0.0000027857 | Acute Tox. 1 (Oral), H300 Acute Tox. 3 (Dermal), H311 Acute Tox. 1 (Inhalation:dust,mist), H330 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 4,4'-DDE (RING-13C12, 99%) | CAS-No.: 72-55-9 (Unlabeled) | 0.0000027857 | Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 4,4'-DDT (RING-13C12, 99%) | CAS-No.: 50-29-3 | 0.0000027857 | Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 1, H410 |
| ENDRIN (13C12, 99%) | CAS-No.: 72-20-8 (Unlabeled) | 0.0000027857 | Acute Tox. 1 (Oral), H300 Acute Tox. 2 (Dermal), H310 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| OXYCHLORDANE (13C10, 99%) | CAS-No.: 27304-13-8 (Unlabeled) | 0.0000027857 | Acute Tox. 4 (Oral), H302 |
| TRANS-NONACHLOR (13C10, 98%) | CAS-No.: 39765-80-5 (Unlabeled) | 0.0000027857 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| CIS-NONACHLOR (13C10, 98%) | CAS-No.: 5103-73-1 (Unlabeled) | 0.0000027857 | Acute Tox. 4 (Oral), H302 Aquatic Chronic 1, H410 |
| 2,4'-DDT (RING-13C12, 99%) | CAS-No.: 789-02-6 (Unlabeled) | 0.0000027857 | Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| TRANS-CHLORDANE (GAMMA) (13C10, 99%) | CAS-No.: 5103-74-2 (Unlabeled) | 0.0000027857 | Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 |
| 2,4'-DDD (RING-13C12, 99%) | CAS-No.: 53-19-0 (Unlabeled) | 0.0000027857 | Carc. 1B, H350 |
| 2,4'-DDE (RING-13C12, 99%) | CAS-No.: 3424-82-6 (Unlabeled) | 0.0000027857 | Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

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|--|------------------------------------|------------------|---|
| 4,4'-DDD (RING- ¹³ C12, 99%) | CAS-No.: 72-54-8 (Unlabeled) | 0.000002785 7 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| DELTA-BHC (13C6, 99%) | CAS-No.: 319-86-8 (Unlabeled) | 0.000002785 7 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| MIREX (13C10, 98%) | CAS-No.: 2385-85-5 (Unlabeled) | 0.000002785 7 | Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| BETA-BHC (13C6, 99%) | CAS-No.: 319-85-7 (Unlabeled) | 0.000002785 7 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| CIS-HEPTACHLOR EPOXIDE (13C10, 99%) | CAS-No.: 1024-57-3 (Unlabeled) | 0.000002785 7 | Acute Tox. 2 (Oral), H300 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 1, H400 |
| HEPTACHLOR (13C10, 99%) | CAS-No.: 76-44-8 (Unlabeled) | 0.000002785 7 | Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Carc. 2, H351 Aquatic Chronic 1, H410 |
| ENDOSULFAN II (CHEMICAL PURITY >95%) (13C9, 99%) | CAS-No.: 33213-65-9 (Unlabeled) | 0.000002785 7 | Acute Tox. 3 (Oral), H301 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| ENDOSULFAN I (13C9, 99%) | CAS-No.: 959-98-8 (Unlabeled) | 0.000002785 7 | Acute Tox. 1 (Oral), H300 Acute Tox. 4 (Dermal), H312 Acute Tox. 1 (Inhalation), H330 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| KEPONE (CHLORDECONE) (13C10, 99%) | CAS-No.: 143-50-0 (Unlabeled) | 0.000002785 7 | Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| ALPHA-HCH (ALPHA-BHC) (13C6, 99%) | CAS-No.: 319-84-6 | 0.000002785 7 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Name | Product identifier | % | GHS US classification |
|--|----------------------------------|--------------|---|
| 2,3',4',5-TETRACB (PCB-70) (13C12, 99%) | CAS-No.: 208263-81-4 | 0.0000027857 | STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 4,4'-DICB (PCB-15) (13C12, 99%) | CAS-No.: 208263-67-6 | 0.0000027857 | STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| LINDANE (13C6, 99%) | CAS-No.: 58-89-9 (Unlabeled) | 0.0000027857 | Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Lact., H362 STOT SE 2, H371 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) | CAS-No.: 465-73-6 (Unlabeled) | 0.0000027857 | Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 1 (Inhalation), H330 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

Full text of hazard classes and H-statements : 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 | : 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 (acute and delayed)

| | |
|---|---|
| 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 | : May cause drowsiness or dizziness. |
| Symptoms/effects after inhalation | : Harmful if inhaled. May cause respiratory irritation. |
| 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. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapor.
Explosion hazard : May form flammable/explosive vapor-air mixture.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

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. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container 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. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area.

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/ ¹³ C, 99%) IN NONANE/ISOOCTANE | |
|---|--|
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Nonane |
| ACGIH OEL TWA [ppm] | 200 ppm USA. ACGIH Threshold Limit Values (TLV) |
| Remark (ACGIH) | CNS impair |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| HEXACHLOROBENZENE (13C6, 99%) (118-74-1) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0.002 mg/m ³ Central Nervous System impairment. Porphyrin effects. Skin damage. Confirmed animal carcinogen with unknown relevance to humans. Danger of cutaneous absorption. USA. ACGIH Threshold Limit Values (TLV) |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL C | 0.002 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107) - Skin |
| HEXACHLOROBENZENE UNLABELED (118-74-1) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0 mg/m ³ Central Nervous System impairment. Porphyrin effects. Skin damage. |
| ALDRIN (13C12, 99%) (309-00-2 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0.05 mg/m ³ ACGIH Threshold Limit Values (TLV) |
| Remark (ACGIH) | Central Nervous System impairment Liver damage Kidney damage Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 0.25 mg/m ³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| OSHA PEL STEL [1] | 0.25 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| Remark (OSHA) | Skin designation |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

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| ALDRIN (13C12, 99%) (309-00-2 (Unlabeled)) | |
|--|--|
| USA - NIOSH - Occupational Exposure Limits | |
| NIOSH REL TWA | 0.25 mg/m ³ USA. NIOSH Recommended Exposure Limits. |
| Remark (NIOSH) | Potential Occupational Carcinogen See Appendix A Potential for dermal absorption |
| PENTACHLOROBENZENE (13C6, 99%) (608-93-5 (Unlabeled)) | |
| No additional information available | |
| PENTACHLOROBENZENE UNLABELED (608-93-5) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| ALDRIN UNLABELED (309-00-2) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0.05 mg/m ³ Skin contact does contribute to exposure. Confirmed animal carcinogen. |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 0.25 mg/m ³ Skin notation |
| DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0.25 mg/m ³ Liver damage. Central Nervous System convulsion. Danger of cutaneous absorption |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 0.25 mg/m ³ Skin notation |
| 4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| 4,4'-DDT (RING-13C12, 99%) (50-29-3) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 1 mg/m ³ Liver damage. Confirmed animal carcinogen with unknown relevance to humans. |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 1 mg/m ³ Skin designation |
| USA - NIOSH - Occupational Exposure Limits | |
| NIOSH REL TWA | 0.5 mg/m ³ Potential Occupational Carcinogen |
| ENDRIN (13C12, 99%) (72-20-8 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0.1 mg/m ³ Central Nervous System impairment, Headache, Liver damage |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|--|--|
| ENDRIN (13C12, 99%) (72-20-8 (Unlabeled)) | |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 0.1 mg/m ³ Danger of cutaneous absorption, not classifiable a a human carcinogen |
| DIELDRIN UNLABELED (60-57-1) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0.25 mg/m ³ Liver damage. Central Nervous System convulsion. Danger of cutaneous absorption |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 0.25 mg/m ³ Skin notation |
| ENDRIN UNLABELED (72-20-8) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0.1 mg/m ³ Central Nervous System impairment, Headache, Liver damage |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 0.1 mg/m ³ Danger of cutaneous absorption, not classifiable a a human carcinogen |
| 4,4'-DDT UNLABELED (50-29-3) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 1 mg/m ³ Liver damage. Confirmed animal carcinogen with unknown relevance to humans. |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 1 mg/m ³ Skin notation |
| OXYCHLORDANE (13C10, 99%) (27304-13-8 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| TRANS-NONACHLOR (13C10, 98%) (39765-80-5 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| CIS-NONACHLOR (13C10, 98%) (5103-73-1 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| 2,4'-DDT (RING-13C12, 99%) (789-02-6 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|---|--|
| TRANS-CHLORDANE (GAMMA) (13C10, 99%) (5103-74-2 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| 2,4'-DDD (RING-13C12, 99%) (53-19-0 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| 2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6) | |
| No additional information available | |
| 2,4'-DDE (RING-13C12, 99%) (3424-82-6 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| 4,4'-DDD (RING-13C12, 99%) (72-54-8 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| TRANS-NONACHLOR UNLABELED (39765-80-5) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| CIS-NONACHLOR UNLABELED (5103-73-1) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2) | |
| No additional information available | |
| 2,4'-DDD UNLABELED (53-19-0) | |
| No additional information available | |
| 2,4'-DDE UNLABELED (3424-82-6) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 4,4'-DDD UNLABELED (72-54-8) | |
|---|--|
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| N-NONANE UNLABELED (111-84-2) | |
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Nonane |
| ACGIH OEL TWA [ppm] | 200 ppm USA. ACGIH Threshold Limit Values (TLV) |
| Remark (ACGIH) | CNS impair |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 1050 mg/m ³ USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000 |
| OSHA PEL TWA [2] | 200 ppm USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000 |
| OSHA PEL C | 1050 California permissible exposure limits for chemical contaminants. |
| OSHA PEL C [ppm] | 200 ppm California permissible exposure limits for chemical contaminants. |
| USA - NIOSH - Occupational Exposure Limits | |
| NIOSH REL TWA | 1050 mg/m ³ USA. NIOSH Recommended Exposure Limits |
| NIOSH REL TWA [ppm] | 200 ppm USA. NIOSH Recommended Exposure Limits |
| Remark (NIOSH) | Central Nervous System impairment |
| ISOOCTANE UNLABELED (540-84-1) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA [ppm] | 300 ppm Basis: USA. ACGIH Threshold Limit Values (TLV) |
| Remark (ACGIH) | Upper Respiratory Tract irritation |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| DELTA-BHC (13C6, 99%) (319-86-8 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| MIREX (13C10, 98%) (2385-85-5 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|---|---|
| CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| HEPTACHLOR (13C10, 99%) (76-44-8 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible, or confirmed human carcinogen by IARC. |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 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 - NIOSH - Occupational Exposure Limits | |
| NIOSH REL TWA | 0.5 mg/m ³ USA. NIOSH Recommended Exposure Limits |
| Remark (NIOSH) | Potential Occupational Carcinogen. See Appendix A. Potential for dermal absorption. |
| ENDOSULFAN II (CHEMICAL PURITY >95%) (13C9, 99%) (33213-65-9 (Unlabeled)) | |
| No additional information available | |
| ENDOSULFAN I (13C9, 99%) (959-98-8 (Unlabeled)) | |
| No additional information available | |
| KEPONE (CHLORDECONE) (13C10, 99%) (143-50-0 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| ALPHA-HCH (ALPHA-BHC) (13C6, 99%) (319-84-6) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| LINDANE UNLABELED (58-89-9) | |
| No additional information available | |
| 2,3',4',5-TETRACB (PCB-70) (13C12, 99%) (208263-81-4) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| 4,4'-DICB (PCB-15) (13C12, 99%) (208263-67-6) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|--|---|
| MIREX UNLABELED (2385-85-5) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| ALPHA-BHC UNLABELED (319-84-6) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| DELTA-BHC UNLABELED (319-86-8) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| HEPTACHLOR UNLABELED (76-44-8) | |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL TWA [1] | 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) |
| Remark (OSHA) | Skin designation |
| USA - NIOSH - Occupational Exposure Limits | |
| NIOSH REL TWA | 0.5 mg/m ³ USA. NIOSH Recommended Exposure Limits |
| Remark (NIOSH) | Potential Occupational Carcinogen. See Appendix A. Potential for dermal absorption. |
| CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| TRANS-HEPTACHLOR EPOXIDE UNLABELED (28044-83-9) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| BETA-BHC UNLABELED (319-85-7) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| OXYCHLORDANE UNLABELED (27304-13-8) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| KEPONE (CHLORDECONE) UNLABELED (143-50-0) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| KEPONE (CHLORDECONE) UNLABELED (143-50-0) | |
|--|--|
| USA - NIOSH - Occupational Exposure Limits | |
| NIOSH REL TWA | 0.001 mg/m ³ Remarks: Potential Occupational Carcinogen ; USA. NIOSH Recommended Exposure Limits |
| ENDOSULFAN I UNLABELED (959-98-8) | |
| No additional information available | |
| LINDANE (13C6, 99%) (58-89-9 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0.5 mg/m ³ |
| ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled)) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| 4,4'-DDE UNLABELED (72-55-9) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH chemical category | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. |
| ENDOSULFAN II UNLABELED (33213-65-9) | |
| No additional information available | |

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

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.

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Color | : Colorless |
| Odor | : No data available |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : -53 °C (- 63 °F) - lit |
| Boiling point | : 151 °C (304 °F) - lit |
| Flash point | : 31 °C (87.8 °F) - closed cup |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : 5.69 hPa (4.27 mmHg) at 25 °C (77 °F) |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Density | : 0.718 g/ml at 25 °C (77 °F) |
| Molecular mass | : 128.3 g/mol |
| Solubility | : Water: 0.0002 % |
| Partition coefficient n-octanol/water (Log Pow) | : 5.65 |
| Auto-ignition temperature | : 205 °C (401 °F) |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : ≤ 1.008 mm ² /s at 20 °C (68 °F) |
| Viscosity, dynamic | : No data available |
| Explosion limits | : 0.87 – 2.9 % (V) |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

No additional information available

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.

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

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 (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Harmful if inhaled.

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

| | |
|-----------------------|---|
| LC50 Inhalation - Rat | 23760 mg/m ³ male - 4 h |
| ATE US (gases) | 3200 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| Additional data | Skin corrosion/irritation, Dermal, rat: Result: Skin Irritation (Draize Test) S. Typhimurium Result negative |

HEXACHLOROBENZENE (¹³C₆, 99%) (118-74-1)

| | |
|------------------------|------------------------------|
| LD50 oral rat | 10000 mg/kg |
| LD50 oral | > 3000 mg/kg Guinea pig |
| LC50 Inhalation - Rat | 3600 mg/m ³ |
| Additional information | LD50 Oral Mouse - 1760 mg/kg |

HEXACHLOROBENZENE UNLABELED (118-74-1)

| | |
|-----------------------|-------------------------|
| LD50 oral rat | 10000 mg/kg |
| LC50 Inhalation - Rat | 3600 mg/m ³ |
| ATE US (oral) | 10000 mg/kg body weight |
| ATE US (vapors) | 3.6 mg/l/4h |
| ATE US (dust, mist) | 3.6 mg/l/4h |

ALDRIN (¹³C₁₂, 99%) (309-00-2 (Unlabeled))

| | |
|-----------------|--|
| LD50 oral rat | 39 mg/kg |
| LD50 dermal rat | 15 mg/kg Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Olfaction:Other changes. Behavioral:Convulsions or effect on seizure threshold. Behavioral:Excitement. |
| ATE US (oral) | 39 mg/kg body weight |
| ATE US (dermal) | 15 mg/kg body weight |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| PENTACHLOROBENZENE (13C6, 99%) (608-93-5 (Unlabeled)) | |
|--|--|
| LD50 oral rat | 1080 mg/kg Remarks: Behavioral:General anesthetic. Behavioral:Tremor. |
| LD50 dermal | > 2500 mg/kg - Rat |
| ATE US (oral) | 500 mg/kg body weight |
| PENTACHLOROBENZENE UNLABELED (608-93-5) | |
| LD50 oral rat | 1080 mg/kg |
| ATE US (oral) | 1080 mg/kg body weight |
| ALDRIN UNLABELED (309-00-2) | |
| LD50 oral rat | 39 mg/kg |
| ATE US (oral) | 39 mg/kg body weight |
| ATE US (dermal) | 5 mg/kg body weight |
| DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled)) | |
| LD50 dermal rabbit | 250 mg/kg |
| LC50 Inhalation - Rat | 13 mg/m ³ 4 h |
| ATE US (oral) | 0.5 mg/kg body weight |
| ATE US (dermal) | 250 mg/kg body weight |
| ATE US (vapors) | 0.013 mg/l/4h |
| ATE US (dust, mist) | 0.013 mg/l/4h |
| 4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled)) | |
| LD50 oral rat | 880 mg/kg |
| ATE US (oral) | 880 mg/kg body weight |
| 4,4'-DDT (RING-13C12, 99%) (50-29-3) | |
| LD50 oral rat | 87 mg/kg |
| LD50 dermal rabbit | 300 mg/kg Remarks: Behavioral:Tremor. Behavioral:Muscle weakness. Behavioral:Ataxia. |
| ATE US (oral) | 87 mg/kg body weight |
| ATE US (dermal) | 300 mg/kg body weight |
| ENDRIN (13C12, 99%) (72-20-8 (Unlabeled)) | |
| LD50 oral rat | 3 mg/kg |
| LD50 dermal rabbit | 60 mg/kg |
| ATE US (oral) | 3 mg/kg body weight |
| ATE US (dermal) | 60 mg/kg body weight |
| DIELDRIN UNLABELED (60-57-1) | |
| LD50 oral rat | 38.3 mg/kg |
| ATE US (oral) | 5 mg/kg body weight |
| ATE US (dermal) | 5 mg/kg body weight |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ENDRIN UNLABELED (72-20-8) | |
|---|--|
| LD50 oral rat | 3 mg/kg |
| LD50 dermal rabbit | 60 mg/kg |
| ATE US (oral) | 3 mg/kg body weight |
| ATE US (dermal) | 60 mg/kg body weight |
| 4,4'-DDT UNLABELED (50-29-3) | |
| LD50 oral rat | 87 mg/kg |
| LD50 dermal rabbit | 300 mg/kg |
| ATE US (oral) | 87 mg/kg body weight |
| ATE US (dermal) | 300 mg/kg body weight |
| OXYCHLORDANE (13C10, 99%) (27304-13-8 (Unlabeled)) | |
| LD50 oral rat | 457 mg/kg |
| ATE US (oral) | 457 mg/kg body weight |
| TRANS-NONACHLOR (13C10, 98%) (39765-80-5 (Unlabeled)) | |
| LD50 oral rat | 500 mg/kg |
| ATE US (oral) | 500 mg/kg body weight |
| CIS-NONACHLOR (13C10, 98%) (5103-73-1 (Unlabeled)) | |
| ATE US (oral) | 500 mg/kg body weight |
| 2,4'-DDT (RING-13C12, 99%) (789-02-6 (Unlabeled)) | |
| ATE US (oral) | 100 mg/kg body weight |
| TRANS-CHLORDANE (GAMMA) (13C10, 99%) (5103-74-2 (Unlabeled)) | |
| LD50 oral rat | 1100 mg/kg |
| ATE US (oral) | 1100 mg/kg body weight |
| 2,4'-DDD (RING-13C12, 99%) (53-19-0 (Unlabeled)) | |
| LD50 oral rat | > 5000 mg/kg |
| 2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6) | |
| LD50 oral | Intraperitoneal-mouse - 1,577mg/kg Tremor,Convulsions,Seizure threshold,Excitement |
| ATE US (oral) | 100 mg/kg body weight |
| 2,4'-DDE (RING-13C12, 99%) (3424-82-6 (Unlabeled)) | |
| LD50 oral rat | 880 mg/kg |
| ATE US (oral) | 880 mg/kg body weight |
| 4,4'-DDD (RING-13C12, 99%) (72-54-8 (Unlabeled)) | |
| ATE US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9) | |
|--|---|
| LD50 oral rat | 500 mg/kg |
| ATE US (oral) | 500 mg/kg body weight |
| ATE US (dermal) | 300 mg/kg body weight |
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| TRANS-NONACHLOR UNLABELED (39765-80-5) | |
| LD50 oral rat | 500 mg/kg |
| ATE US (oral) | 500 mg/kg body weight |
| CIS-NONACHLOR UNLABELED (5103-73-1) | |
| ATE US (oral) | 500 mg/kg body weight |
| TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2) | |
| LD50 oral rat | 1100 mg/kg |
| LD50 oral | 275 mg/kg mouse |
| ATE US (oral) | 1100 mg/kg body weight |
| 2,4'-DDD UNLABELED (53-19-0) | |
| LD50 oral rat | > 5000 mg/kg |
| 2,4'-DDE UNLABELED (3424-82-6) | |
| LD50 oral rat | 880 mg/kg |
| ATE US (oral) | 880 mg/kg body weight |
| 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 US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| N-NONANE UNLABELED (111-84-2) | |
| LC50 Inhalation - Rat | 23760 mg/m ³ male - 4 h |
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 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) |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ISOOCTANE UNLABELED (540-84-1) | |
|---|---|
| LD50 dermal rabbit | > 2000 mg/kg (OECD Test Guideline 402) |
| LC50 Inhalation - Rat | > 33.52 mg/l/4h (OECD Test Guideline 403) |
| DELTA-BHC (13C6, 99%) (319-86-8 (Unlabeled)) | |
| LD50 oral rat | 1000 mg/kg |
| ATE US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| MIREX (13C10, 98%) (2385-85-5 (Unlabeled)) | |
| LD50 oral rat | 235 mg/kg |
| LD50 dermal rabbit | 800 mg/kg |
| ATE US (oral) | 235 mg/kg body weight |
| ATE US (dermal) | 300 mg/kg body weight |
| BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled)) | |
| LD50 oral rat | 6000 mg/kg |
| ATE US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled)) | |
| LD50 oral rat | 15 mg/kg |
| ATE US (oral) | 15 mg/kg body weight |
| HEPTACHLOR (13C10, 99%) (76-44-8 (Unlabeled)) | |
| LD50 oral rat | 40 mg/kg |
| LD50 dermal rat | 119 mg/kg |
| ATE US (oral) | 40 mg/kg body weight |
| ATE US (dermal) | 5 mg/kg body weight |
| ENDOSULFAN II (CHEMICAL PURITY >95%) (13C9, 99%) (33213-65-9 (Unlabeled)) | |
| LD50 oral rat | 240 mg/kg |
| ATE US (oral) | 240 mg/kg body weight |
| ENDOSULFAN I (13C9, 99%) (959-98-8 (Unlabeled)) | |
| ATE US (oral) | 0.5 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| ATE US (gases) | 10 ppmV/4h |
| ATE US (vapors) | 0.05 mg/l/4h |
| ATE US (dust, mist) | 0.005 mg/l/4h |
| KEPONE (CHLORDECONE) (13C10, 99%) (143-50-0 (Unlabeled)) | |
| LD50 oral rat | 91.3 mg/kg |
| LD50 dermal rabbit | 345 mg/kg |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| KEPONE (CHLORDECONE) (13C10, 99%) (143-50-0 (Unlabeled)) | |
|---|------------------------|
| ATE US (oral) | 91.3 mg/kg body weight |
| ATE US (dermal) | 345 mg/kg body weight |
| ALPHA-HCH (ALPHA-BHC) (13C6, 99%) (319-84-6) | |
| LD50 oral rat | 177 mg/kg |
| ATE US (oral) | 177 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| LINDANE UNLABELED (58-89-9) | |
| ATE US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| MIREX UNLABELED (2385-85-5) | |
| LD50 oral rat | 235 mg/kg |
| ATE US (oral) | 235 mg/kg body weight |
| ATE US (dermal) | 300 mg/kg body weight |
| ALPHA-BHC UNLABELED (319-84-6) | |
| LD50 oral rat | 177 mg/kg |
| ATE US (oral) | 177 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| DELTA-BHC UNLABELED (319-86-8) | |
| LD50 oral rat | 1000 mg/kg |
| ATE US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| HEPTACHLOR UNLABELED (76-44-8) | |
| LD50 oral rat | 40 mg/kg |
| LD50 dermal rat | 119 mg/kg |
| ATE US (oral) | 40 mg/kg body weight |
| ATE US (dermal) | 5 mg/kg body weight |
| CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3) | |
| LD50 oral rat | 15 mg/kg |
| ATE US (oral) | 15 mg/kg body weight |
| TRANS-HEPTACHLOR EPOXIDE UNLABELED (28044-83-9) | |
| LD50 oral rat | 15 mg/kg |
| ATE US (oral) | 15 mg/kg body weight |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| BETA-BHC UNLABELED (319-85-7) | |
|--|------------------------|
| LD50 oral rat | 6000 mg/kg |
| ATE US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| OXYCHLORDANE UNLABELED (27304-13-8) | |
| LD50 oral rat | 457 mg/kg |
| ATE US (oral) | 457 mg/kg body weight |
| KEPONE (CHLORDECONE) UNLABELED (143-50-0) | |
| LD50 oral rat | 91.3 mg/kg |
| LD50 dermal rabbit | 345 mg/kg |
| ATE US (oral) | 91.3 mg/kg body weight |
| ATE US (dermal) | 345 mg/kg body weight |
| ENDOSULFAN I UNLABELED (959-98-8) | |
| ATE US (oral) | 0.5 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| ATE US (gases) | 10 ppmV/4h |
| ATE US (vapors) | 0.05 mg/l/4h |
| ATE US (dust, mist) | 0.005 mg/l/4h |
| LINDANE (13C6, 99%) (58-89-9 (Unlabeled)) | |
| ATE US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled)) | |
| LD50 oral rat | 7 mg/kg |
| LD50 dermal rat | 23 mg/kg |
| ATE US (oral) | 0.5 mg/kg body weight |
| ATE US (dermal) | 23 mg/kg body weight |
| ATE US (gases) | 10 ppmV/4h |
| ATE US (vapors) | 0.05 mg/l/4h |
| ATE US (dust, mist) | 0.005 mg/l/4h |
| 4,4'-DDE UNLABELED (72-55-9) | |
| LD50 oral rat | 880 mg/kg |
| ATE US (oral) | 880 mg/kg body weight |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ENDOSULFAN II UNLABELED (33213-65-9) | |
|---|---|
| LD50 oral rat | 240 mg/kg |
| ATE US (oral) | 240 mg/kg body weight |
| Skin corrosion/irritation | : Causes skin irritation. |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| HEXACHLOROBENZENE (13C6, 99%) (118-74-1) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| HEXACHLOROBENZENE UNLABELED (118-74-1) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| ALDRIN (13C12, 99%) (309-00-2 (Unlabeled)) | |
| IARC group | 3 - Not classifiable |
| ALDRIN UNLABELED (309-00-2) | |
| IARC group | 2A - Probably carcinogenic to humans |
| DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled)) | |
| IARC group | 3 - Not classifiable |
| 4,4'-DDT (RING-13C12, 99%) (50-29-3) | |
| IARC group | 2A - Probably carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| ENDRIN (13C12, 99%) (72-20-8 (Unlabeled)) | |
| IARC group | 3 - Not classifiable |
| DIELDRIN UNLABELED (60-57-1) | |
| IARC group | 2A - Probably carcinogenic to humans |
| ENDRIN UNLABELED (72-20-8) | |
| IARC group | 3 - Not classifiable |
| 4,4'-DDT UNLABELED (50-29-3) | |
| IARC group | 2A - Probably carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| TRANS-CHLORDANE (GAMMA) (13C10, 99%) (5103-74-2 (Unlabeled)) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| 2,4'-DDD (RING-13C12, 99%) (53-19-0 (Unlabeled)) | |
| IARC group | 2B - Possibly carcinogenic to humans |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|---|---|
| 2,4'-DDE (RING-¹³C₁₂, 99%) (3424-82-6 (Unlabeled)) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| 2,4'-DDD UNLABELED (53-19-0) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| 2,4'-DDE UNLABELED (3424-82-6) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| 4,4'-DDD UNLABELED (72-54-8) | |
| IARC group | 2A - Probably carcinogenic to humans |
| DELTA-BHC (13C₆, 99%) (319-86-8 (Unlabeled)) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| MIREX (13C₁₀, 98%) (2385-85-5 (Unlabeled)) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| BETA-BHC (13C₆, 99%) (319-85-7 (Unlabeled)) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| CIS-HEPTACHLOR EPOXIDE (13C₁₀, 99%) (1024-57-3 (Unlabeled)) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| HEPTACHLOR (13C₁₀, 99%) (76-44-8 (Unlabeled)) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| KEPONE (CHLORDECONE) (13C₁₀, 99%) (143-50-0 (Unlabeled)) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| ALPHA-HCH (ALPHA-BHC) (13C₆, 99%) (319-84-6) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| LINDANE UNLABELED (58-89-9) | |
| IARC group | 1 - Carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 2,3',4',5-TETRACB (PCB-70) (¹³C12, 99%) (208263-81-4) | |
|---|--|
| IARC group | 2A - Probably carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| MIREX UNLABELED (2385-85-5) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| ALPHA-BHC UNLABELED (319-84-6) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| DELTA-BHC UNLABELED (319-86-8) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| HEPTACHLOR UNLABELED (76-44-8) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| BETA-BHC UNLABELED (319-85-7) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| KEPONE (CHLORDECONE) UNLABELED (143-50-0) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| ISODRIN (CHEMICAL PURITY 95%) (¹³C12, 99%) (465-73-6 (Unlabeled)) | |
| National Toxicology Program (NTP) Status | No component of this product present at levels greater than or equal to 0.1 % is identified as a known or anticipated carcinogen by NTP. |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : May cause drowsiness or dizziness. |
| HEXACHLOROBENZENE UNLABELED (118-74-1) | |
| STOT-single exposure | Causes damage to organs (liver) (Dermal, Inhalation, oral). |
| 4,4'-DDT UNLABELED (50-29-3) | |
| STOT-single exposure | Causes damage to organs (liver, pancreas) (Dermal, Inhalation, oral). |
| TRANS-NONACHLOR (¹³C10, 98%) (39765-80-5 (Unlabeled)) | |
| STOT-single exposure | May cause respiratory irritation. |
| 2,4'-DDT (RING-¹³C12, 99%) (789-02-6 (Unlabeled)) | |
| STOT-single exposure | May cause respiratory irritation. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|--|---|
| CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9) | |
| STOT-single exposure | May cause respiratory irritation. |
| TRANS-NONACHLOR UNLABELED (39765-80-5) | |
| STOT-single exposure | May cause respiratory irritation. |
| N-NONANE UNLABELED (111-84-2) | |
| STOT-single exposure | May cause drowsiness or dizziness. |
| ISOOCTANE UNLABELED (540-84-1) | |
| STOT-single exposure | May cause drowsiness or dizziness. |
| LINDANE (13C6, 99%) (58-89-9 (Unlabeled)) | |
| STOT-single exposure | May cause damage to organs (central nervous system) (Dermal, Inhalation, oral). |
| STOT-repeated exposure | : Not classified |
| HEXACHLOROBENZENE (13C6, 99%) (118-74-1) | |
| STOT-repeated exposure | Causes damage to organs through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| ALDRIN (13C12, 99%) (309-00-2 (Unlabeled)) | |
| STOT-repeated exposure | Causes damage to organs through prolonged or repeated exposure. |
| ALDRIN UNLABELED (309-00-2) | |
| STOT-repeated exposure | Causes damage to organs (central nervous system, genital organs, kidneys, liver) through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled)) | |
| STOT-repeated exposure | Causes damage to organs (central nervous system, liver, blood) through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| 4,4'-DDT (RING-13C12, 99%) (50-29-3) | |
| STOT-repeated exposure | Causes damage to organs (liver, pancreas) through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| DIELDRIN UNLABELED (60-57-1) | |
| STOT-repeated exposure | Causes damage to organs (blood, central nervous system, liver) through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| 4,4'-DDT UNLABELED (50-29-3) | |
| STOT-repeated exposure | Causes damage to organs through prolonged or repeated exposure. |
| 2,4'-DDT (RING-13C12, 99%) (789-02-6 (Unlabeled)) | |
| STOT-repeated exposure | Causes damage to organs (genital organs) through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| 2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6) | |
| STOT-repeated exposure | Causes damage to organs (central nervous system) through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled)) | |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| LINDANE UNLABELED (58-89-9) | |
|--|--|
| STOT-repeated exposure | May cause damage to organs (central nervous system) through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| 2,3',4',5-TETRACB (PCB-70) (13C12, 99%) (208263-81-4) | |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| 4,4'-DICB (PCB-15) (13C12, 99%) (208263-67-6) | |
| STOT-repeated exposure | May cause damage to organs (kidneys, liver) through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3) | |
| STOT-repeated exposure | May cause damage to organs (blood, liver, brain) through prolonged or repeated exposure (Dermal, Inhalation, oral). |
| TRANS-HEPTACHLOR EPOXIDE UNLABELED (28044-83-9) | |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure (Dermal, Inhalation, oral). |

Aspiration hazard : May be fatal if swallowed and enters airways.

Viscosity, kinematic : $\leq 1.008 \text{ mm}^2/\text{s}$ at 20 °C (68 °F)

| N-NONANE UNLABELED (111-84-2) | |
|---|---|
| Viscosity, kinematic | $\leq 1.008 \text{ mm}^2/\text{s}$ at 20 °C (68 °F) |
| ENDOSULFAN II (CHEMICAL PURITY >95%) (13C9, 99%) (33213-65-9 (Unlabeled)) | |
| Viscosity, kinematic | Not applicable |
| ENDOSULFAN I (13C9, 99%) (959-98-8 (Unlabeled)) | |
| Viscosity, kinematic | Not applicable |
| ENDOSULFAN I UNLABELED (959-98-8) | |
| Viscosity, kinematic | Not applicable |
| ENDOSULFAN II UNLABELED (33213-65-9) | |
| Viscosity, kinematic | Not applicable |

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 : May cause drowsiness or dizziness.

Symptoms/effects after inhalation : Harmful if inhaled. May cause respiratory irritation.

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 - water : Harmful to aquatic life with long lasting effects.

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| HEXACHLOROBENZENE (13C6, 99%) (118-74-1) | |
|--|--|
| LC50 - Fish [1] | 7.6 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96 h |
| EC50 - Other aquatic organisms [1] | > 0.005 mg/l <i>Daphnia magna</i> (Water flea) - 48 h |
| NOEC (chronic) | > 0.0048 mg/l <i>Pimephales promelas</i> (fathead minnow) - 96 h |
| HEXACHLOROBENZENE UNLABELED (118-74-1) | |
| LC50 - Fish [1] | 7.6 mg/l <i>Lepomis macrochirus</i> (Bluegill) -96h |
| EC50 - Crustacea [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 |
| ALDRIN (13C12, 99%) (309-00-2 (Unlabeled)) | |
| LC50 - Fish [1] | 0.01 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h |
| EC50 - Crustacea [1] | 0.03 mg/l <i>Daphnia magna</i> (Water flea) - 48 h |
| PENTACHLOROBENZENE (13C6, 99%) (608-93-5 (Unlabeled)) | |
| LC50 - Fish [1] | 0.247 mg/l - <i>Pimephales promelas</i> (fathead minnow)- 96.0 h |
| PENTACHLOROBENZENE UNLABELED (608-93-5) | |
| LC50 - Fish [1] | 0.247 mg/l <i>Pimephales promelas</i> (fathead minnow) -96h |
| ALDRIN UNLABELED (309-00-2) | |
| LC50 - Fish [1] | 0.01 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h |
| EC50 - Crustacea [1] | 0.03 mg/l <i>Daphnia magna</i> (Water flea) - 48 h |
| DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled)) | |
| LC50 - Fish [1] | 1.6 mg/l <i>Carassius auratus</i> (goldfish) - 96 h |
| EC50 - Crustacea [1] | 79.5 mg/l <i>Daphnia magna</i> (Water flea) - 48 h |
| 4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled)) | |
| LC50 - Fish [1] | 0.2 – 0.3 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96 h |
| LC50 - Other aquatic organisms [1] | 0.05 – 0.18 mg/l <i>Salmo salar</i> (Atlantic salmon) - 96 h |
| LC50 - Fish [2] | 0.03 – 0.04 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h |
| 4,4'-DDT (RING-13C12, 99%) (50-29-3) | |
| LC50 - Fish [1] | 0.01 mg/l <i>Pimephales promelas</i> (fathead minnow) - 96 h |
| LC50 - Other aquatic organisms [1] | 0.01 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96.0 h |
| EC50 - Crustacea [1] | 0.00108 mg/l <i>Daphnia magna</i> (Water flea) - 48 h |
| LC50 - Fish [2] | 0.0034 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h |
| ErC50 other aquatic plants | > 20 mg/l <i>Scenedesmus quadricauda</i> (Green algae) - 7 d |
| LOEC (chronic) | 150 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h |
| NOEC (chronic) | 113 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 3 d |
| ENDRIN (13C12, 99%) (72-20-8 (Unlabeled)) | |
| LC50 - Fish [1] | < 0.001 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ENDRIN (¹³C12, 99%) (72-20-8 (Unlabeled)) | |
|--|---|
| EC50 - Crustacea [1] | ≥ 0.02 mg/l Daphnia pulex (Water flea) - 48 h |
| DIELDRIN UNLABELED (60-57-1) | |
| LC50 - Fish [1] | 1.6 mg/l Carassius auratus (goldfish) - 96 h |
| EC50 - Crustacea [1] | 79.5 mg/l Daphnia magna (Water flea) - 48 h |
| ENDRIN UNLABELED (72-20-8) | |
| LC50 - Fish [1] | < 0.001 mg/l Oncorhynchus mykiss (rainbow trout) -96h |
| EC50 - Crustacea [1] | 0.02 mg/l Daphnia pulex (Water flea) -48h |
| 4,4'-DDT UNLABELED (50-29-3) | |
| LC50 - Fish [1] | 0.01 mg/l Pimephales promelas (fathead minnow) - 96 h |
| EC50 - Crustacea [1] | 0.00108 mg/l Daphnia magna (Water flea) - 48 h |
| ErC50 algae | > 20 mg/l Scenedesmus quadricauda (Green Algae) - 7 d |
| ErC50 other aquatic plants | 113 mg/l Oncorhynchus mykiss (rainbow trout) - 3 d |
| NOEC (chronic) | 113 mg/l Oncorhynchus mykiss (rainbow trout) - 3 d |
| TRANS-NONACHLOR (¹³C10, 98%) (39765-80-5 (Unlabeled)) | |
| EC50 - Crustacea [1] | 0.022 mg/l Daphnia pulex (Water flea) - 48 h |
| 2,4'-DDT (RING-¹³C12, 99%) (789-02-6 (Unlabeled)) | |
| LC50 - Fish [1] | 0.03 mg/l Other fish - 24 h |
| TRANS-CHLORDANE (GAMMA) (¹³C10, 99%) (5103-74-2 (Unlabeled)) | |
| LC50 - Fish [1] | 0.05 mg/l Lepomis macrochirus - 96 h |
| 2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6) | |
| LC50 - Fish [1] | 0.03 mg/l Other fish - 24 h |
| 4,4'-DDD (RING-¹³C12, 99%) (72-54-8 (Unlabeled)) | |
| LC50 - Fish [1] | 0.04 - 0.05 mg/l - Lepomis macrochirus (Bluegill) - 96 h |
| EC50 - Crustacea [1] | 0.01 mg/l Daphnia pulex (Water flea) - 48 h |
| CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9) | |
| LC50 - Fish [1] | 0.0074 mg/l Lepomis macrochirus (Bluegill) -96h |
| TRANS-NONACHLOR UNLABELED (39765-80-5) | |
| EC50 - Crustacea [1] | Daphnia pulex (Water flea) - 0.022 mg/l - 48 h |
| TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2) | |
| LC50 - Fish [1] | 0.05 mg/l Lepomis machrochirus - 96 h |
| 4,4'-DDD UNLABELED (72-54-8) | |
| LC50 - Fish [1] | 0.04 – 0.05 mg/l Lepomis macrochirus (Bluegill) - 96.0 h |
| LC50 - Other aquatic organisms [1] | 0.06 – 0.09 mg/l - Oncorhynchus mykiss (rainbow trout) - 96.0 h |
| EC50 - Crustacea [1] | 0.01 mg/l Daphnia pulex (Water flea) - 48 h |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 4,4'-DDD UNLABELED (72-54-8) | |
|---|--|
| LC50 - Fish [2] | 1.18 – 9 mg/l - other fish - 96.0 h |
| LC50 - Other aquatic organisms [2] | 3.47 – 5.58 mg/l - Pimephales promelas (fathead minnow) - 96.0 h |
| DELTA-BHC (13C6, 99%) (319-86-8 (Unlabeled)) | |
| LC50 - Fish [1] | 2.83 mg/l Other fish - 96 h |
| MIREX (13C10, 98%) (2385-85-5 (Unlabeled)) | |
| LC50 - Fish [1] | 0.023 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h |
| EC50 - Crustacea [1] | 2.6 mg/l Daphnia magna (Water flea) - 48 h |
| BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled)) | |
| LC50 - Fish [1] | 1.6 mg/l Poecilia reticulata (guppy) - 96 h |
| CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled)) | |
| LC50 - Fish [1] | 0.02 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h |
| EC50 - Crustacea [1] | 0.24 mg/l Daphnia magna (Water flea) - 48 h |
| HEPTACHLOR (13C10, 99%) (76-44-8 (Unlabeled)) | |
| LC50 - Fish [1] | 0.007 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h |
| EC50 - Crustacea [1] | 0.078 mg/l Daphnia magna (Water flea) - 48 h |
| ENDOSULFAN II (CHEMICAL PURITY >95%) (13C9, 99%) (33213-65-9 (Unlabeled)) | |
| LC50 - Fish [1] | 0.0066 mg/l Other fish - 96 h |
| EC50 - Crustacea [1] | 0.1 – 1 mg/l Daphnia magna (Water flea) - 48 h |
| ENDOSULFAN I (13C9, 99%) (959-98-8 (Unlabeled)) | |
| LC50 - Fish [1] | 0.2 µg/l Other fish - 21 d |
| KEPONE (CHLORDECONE) (13C10, 99%) (143-50-0 (Unlabeled)) | |
| LC50 - Fish [1] | 0.03 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h |
| EC50 - Crustacea [1] | 0.26 mg/l Daphnia magna (Water flea) - 48 h |
| ErC50 algae | 0.35 µg/l Chlorococcum sp. - 7 d |
| ALPHA-HCH (ALPHA-BHC) (13C6, 99%) (319-84-6) | |
| LC50 - Fish [1] | 0.12 mg/l Carassius auratus (Goldfish) - 48 h |
| LC50 - Other aquatic organisms [1] | 1.49 mg/l Other fish - 96 h |
| EC50 - Crustacea [1] | 0.2 – 1.7 mg/l Daphnia magna (Water flea) - 48 h |
| LC50 - Fish [2] | 0.2 mg/l Cyprinus carpio (Carp) - 48 h |
| ErC50 algae | > 100 mg/l No information available - 48 h |
| LINDANE UNLABELED (58-89-9) | |
| LC50 - Fish [1] | 0.2 mg/l Cyprinus carpio (Carp) - 96 h |
| EC50 - Crustacea [1] | 0.8 – 6.5 mg/l Daphnia magna (Water flea) - 48 h |
| ErC50 algae | 4 mg/l 72 h |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| LINDANE UNLABELED (58-89-9) | |
|---|---|
| NOEC chronic fish | 0.056 mg/l Oncorhynchus mykiss (rainbow trout) - 3 d |
| 4,4'-DICB (PCB-15) (¹³C12, 99%) (208263-67-6) | |
| EC50 - Crustacea [1] | 0.45 mg/l Daphnia Magna (Water flea) - 48 h |
| MIREX UNLABELED (2385-85-5) | |
| LC50 - Fish [1] | 0.023 mg/l Oncorhynchus mykiss (rainbow trout) -96h |
| EC50 - Crustacea [1] | 2.6 mg/l Daphnia magna (Water flea) -2.6mg/L-48h |
| ALPHA-BHC UNLABELED (319-84-6) | |
| LC50 - Fish [1] | 0.12 mg/l Carassius auratus (Goldfish) - 48 h |
| LC50 - Other aquatic organisms [1] | 1.49 mg/l Other fish - 96 h |
| EC50 - Crustacea [1] | 0.2 – 1.7 mg/l Daphnia magna (Water flea) - 48 h |
| LC50 - Fish [2] | 0.2 mg/l Cyprinus carpio (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 |
| HEPTACHLOR UNLABELED (76-44-8) | |
| LC50 - Fish [1] | 0.007 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h |
| EC50 - Crustacea [1] | 0.078 mg/l Daphnia magna (Water flea) - 48 h |
| CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3) | |
| LC50 - Fish [1] | 0.02 mg/l Oncorhynchus mykiss (rainbow trout) -96h |
| EC50 - Crustacea [1] | 0.24 mg/l Daphnia magna (Water flea) -48h |
| BETA-BHC UNLABELED (319-85-7) | |
| LC50 - Fish [1] | 1.6 mg/l Poecilia reticulata (guppy) -96h |
| KEPONE (CHLORDECONE) UNLABELED (143-50-0) | |
| LC50 - Fish [1] | 0.03 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h |
| EC50 - Crustacea [1] | 0.26 mg/l Daphnia magna (Water flea) - 48 h |
| ErC50 algae | 0.35 µg/l Chlorococccum sp. - 7 d |
| ENDOSULFAN I UNLABELED (959-98-8) | |
| LC50 - Fish [1] | 0.2 µg/l Other fish - 21 d |
| LINDANE (¹³C6, 99%) (58-89-9 (Unlabeled)) | |
| LC50 - Fish [1] | 0.2 mg/l Cyprinus carpio (Carp) - 96 h |
| EC50 - Crustacea [1] | 0.8 – 6.5 mg/l Daphnia magna (Water flea) - 48 h |
| ErC50 algae | 4 mg/l 72 h |
| NOEC chronic fish | 0.056 mg/l Oncorhynchus mykiss (rainbow trout) - 3 d |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled)) | |
|--|--|
| LC50 - Fish [1] | 0.012 mg/l <i>Lepomis macrochirus</i> - 24 h |
| 4,4'-DDE UNLABELED (72-55-9) | |
| LC50 - Fish [1] | 0.2 – 0.3 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96 h |
| LC50 - Other aquatic organisms [1] | 0.05 – 0.18 mg/l <i>Salmo salar</i> (Atlantic salmon) - 96 h |
| LC50 - Fish [2] | 0.03 – 0.04 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h |
| ENDOSULFAN II UNLABELED (33213-65-9) | |
| LC50 - Fish [1] | 0.0066 mg/l Other fish - 96 h |
| EC50 - Crustacea [1] | 0.1 – 1 mg/l <i>Daphnia magna</i> (Water flea) - 48 h |

12.2. Persistence and degradability

| EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE | |
|--|---|
| Persistence and degradability | May cause long-term adverse effects in the environment. |
| PENTACHLOROBENZENE (13C6, 99%) (608-93-5 (Unlabeled)) | |
| 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. |
| 2,4'-DDT (RING-13C12, 99%) (789-02-6 (Unlabeled)) | |
| Persistence and degradability | May cause long-term adverse effects in the environment. |
| 2,4'-DDE (RING-13C12, 99%) (3424-82-6 (Unlabeled)) | |
| Persistence and degradability | May cause long-term adverse effects in the environment. |
| 4,4'-DDD (RING-13C12, 99%) (72-54-8 (Unlabeled)) | |
| Persistence and degradability | May cause long-term adverse effects in the environment. |
| LINDANE (13C6, 99%) (58-89-9 (Unlabeled)) | |
| Persistence and degradability | May cause long-term adverse effects in the environment. |

12.3. Bioaccumulative potential

| EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE | |
|--|--|
| Partition coefficient n-octanol/water (Log Pow) | 5.65 |
| Bioaccumulative potential | Indication of bioaccumulation. |
| HEXACHLOROBENZENE (13C6, 99%) (118-74-1) | |
| Bioconcentration factor (BCF REACH) | 22000 |
| Bioaccumulative potential | Bioaccumulation <i>Pimephale promelas</i> (fathead minnow) - 32 d - 0.0003 mg/l. |
| HEXACHLOROBENZENE UNLABELED (118-74-1) | |
| Bioconcentration factor (BCF REACH) | 22000 |
| Bioaccumulative potential | Bioaccumulative potential: <i>Pimephales promelas</i> (fathead minnow)- 32d. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ALDRIN (¹³C₁₂, 99%) (309-00-2 (Unlabeled)) | |
|--|--|
| Bioconcentration factor (BCF REACH) | 3700 |
| Partition coefficient n-octanol/water (Log Pow) | 6.5 |
| Bioaccumulative potential | Bioaccumulation: Leuciscus idus (Golden orfe) - 3 d. |
| PENTACHLOROBENZENE (¹³C₆, 99%) (608-93-5 (Unlabeled)) | |
| BCF - Fish [1] | 79.8 - µg/l. Pimephales promelas (fathead minnow) - 31 d |
| PENTACHLOROBENZENE UNLABELED (608-93-5) | |
| Bioaccumulative potential | Pimephales promelas (fathead minnow)-31d. |
| ALDRIN UNLABELED (309-00-2) | |
| Partition coefficient n-octanol/water (Log Pow) | 6.5 |
| 4,4'-DDE (RING-¹³C₁₂, 99%) (72-55-9 (Unlabeled)) | |
| BCF - Fish [1] | 3.84 ug/l - Gambusia affinis (Mosquito fish) - 33 d |
| Bioconcentration factor (BCF REACH) | 12.037 |
| Partition coefficient n-octanol/water (Log Pow) | 6.51 |
| 4,4'-DDT (RING-¹³C₁₂, 99%) (50-29-3) | |
| BCF - Fish [1] | 0.001 mg/l Oncorhynchus mykiss (rainbow trout) - 20 d |
| Bioconcentration factor (BCF REACH) | 46,670 |
| Partition coefficient n-octanol/water (Log Pow) | 6.91 |
| ENDRIN (¹³C₁₂, 99%) (72-20-8 (Unlabeled)) | |
| Partition coefficient n-octanol/water (Log Pow) | 5.2 |
| ENDRIN UNLABELED (72-20-8) | |
| Bioconcentration factor (BCF REACH) | 13000 |
| Partition coefficient n-octanol/water (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 |
| Partition coefficient n-octanol/water (Log Pow) | 6.91 |
| TRANS-NONACHLOR (¹³C₁₀, 98%) (39765-80-5 (Unlabeled)) | |
| Partition coefficient n-octanol/water (Log Pow) | 6.35 |
| CIS-NONACHLOR (¹³C₁₀, 98%) (5103-73-1 (Unlabeled)) | |
| Partition coefficient n-octanol/water (Log Pow) | 2.794 |
| 2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6) | |
| Bioconcentration factor (BCF REACH) | 37000 Pimephales promelas (fathead minnow) - 32 d |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|--|---|
| 2,4'-DDE (RING-¹³C₁₂, 99%) (3424-82-6 (Unlabeled)) | |
| Partition coefficient n-octanol/water (Log Pow) | 5.58 |
| 4,4'-DDD (RING-¹³C₁₂, 99%) (72-54-8 (Unlabeled)) | |
| Partition coefficient n-octanol/water (Log Pow) | 6.02 |
| Bioaccumulative potential | Indication of bioaccumulation. |
| CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9) | |
| Bioconcentration factor (BCF REACH) | 332 |
| Bioaccumulative potential | Lepomis macrochirus (Bluegill)-24h. |
| TRANS-NONACHLOR UNLABELED (39765-80-5) | |
| Partition coefficient n-octanol/water (Log Pow) | 6.35 |
| CIS-NONACHLOR UNLABELED (5103-73-1) | |
| Partition coefficient n-octanol/water (Log Pow) | 2.794 |
| 2,4'-DDE UNLABELED (3424-82-6) | |
| Partition coefficient n-octanol/water (Log Pow) | 5.58 |
| 4,4'-DDD UNLABELED (72-54-8) | |
| Partition coefficient n-octanol/water (Log Pow) | 6.02 |
| Bioaccumulative potential | Indication of bioaccumulation. |
| N-NONANE UNLABELED (111-84-2) | |
| Partition coefficient n-octanol/water (Log Pow) | 5.65 |
| Bioaccumulative potential | Indication of bioaccumulation. |
| ISOOCTANE UNLABELED (540-84-1) | |
| Partition coefficient n-octanol/water (Log Pow) | 4.6 |
| MIREX (¹³C₁₀, 98%) (2385-85-5 (Unlabeled)) | |
| BCF - Fish [1] | 0.0012 mg/l Pimephales promelas (rainbow trout) - 32 d |
| Bioconcentration factor (BCF REACH) | 18100 |
| Partition coefficient n-octanol/water (Log Pow) | 5.28 |
| BETA-BHC (¹³C₆, 99%) (319-85-7 (Unlabeled)) | |
| BCF - Fish [1] | Cyprinus carpio (Carp) - 35 d - 0.05 mg/l |
| Partition coefficient n-octanol/water (Log Pow) | 3.78 |
| CIS-HEPTACHLOR EPOXIDE (¹³C₁₀, 99%) (1024-57-3 (Unlabeled)) | |
| Bioconcentration factor (BCF REACH) | 14400 |
| Partition coefficient n-octanol/water (Log Pow) | 5.4 |
| Bioaccumulative potential | Bioaccumulative potential: Pimephales promelas (fathead minnow)- 32d. |
| HEPTACHLOR (¹³C₁₀, 99%) (76-44-8 (Unlabeled)) | |
| BCF - Fish [1] | 0.00043 mg/l Pimephales promelas (fathead minnow) - 276 d |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| HEPTACHLOR (¹³C₁₀, 99%) (76-44-8 (Unlabeled)) | |
|--|---|
| Bioconcentration factor (BCF REACH) | 23814 |
| ENDOSULFAN II (CHEMICAL PURITY >95%) (13C₉, 99%) (33213-65-9 (Unlabeled)) | |
| BCF - Fish [1] | 0.0001 mg/l Other fish - 21 d |
| Bioconcentration factor (BCF REACH) | 9908 |
| ENDOSULFAN I (13C₉, 99%) (959-98-8 (Unlabeled)) | |
| Bioconcentration factor (BCF REACH) | 10994 |
| ALPHA-HCH (ALPHA-BHC) (13C₆, 99%) (319-84-6) | |
| BCF - Fish [1] | 0.8 mg/l Other - 96 h |
| Bioconcentration factor (BCF REACH) | 250 |
| Partition coefficient n-octanol/water (Log Pow) | 3.8 |
| 4,4'-DICB (PCB-15) (13C₁₂, 99%) (208263-67-6) | |
| BCF - Fish [1] | Cyprinus carpio (Carp) - 28 d |
| Bioconcentration factor (BCF REACH) | 14,000 |
| Partition coefficient n-octanol/water (Log Pow) | 4.1 |
| MIREX UNLABELED (2385-85-5) | |
| Bioconcentration factor (BCF REACH) | 18100 |
| Partition coefficient n-octanol/water (Log Pow) | 5.28 |
| Bioaccumulative potential | Bioaccumulative potential: Pimephales promelas (fathead minnow)- 32d. |
| ALPHA-BHC UNLABELED (319-84-6) | |
| BCF - Fish [1] | 0.8 mg/l Other - 96 h |
| Bioconcentration factor (BCF REACH) | 250 |
| Partition coefficient n-octanol/water (Log Pow) | 3.8 |
| DELTA-BHC UNLABELED (319-86-8) | |
| Bioconcentration factor (BCF REACH) | 326 |
| Bioaccumulative potential | Bioaccumulation other fish-33d. |
| HEPTACHLOR UNLABELED (76-44-8) | |
| BCF - Fish [1] | 0.00043 mg/l Pimephales promelas (fathead minnow) - 276 d |
| Bioconcentration factor (BCF REACH) | 23814 |
| CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3) | |
| Bioconcentration factor (BCF REACH) | 14400 |
| Partition coefficient n-octanol/water (Log Pow) | 5.4 |
| Bioaccumulative potential | Bioaccumulative potential: Pimephales promelas (fathead minnow)- 32d. |
| BETA-BHC UNLABELED (319-85-7) | |
| Bioconcentration factor (BCF REACH) | 500 |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| BETA-BHC UNLABELED (319-85-7) | |
|--|---|
| Partition coefficient n-octanol/water (Log Pow) | 3.78 |
| Bioaccumulative potential | Bioaccumulative potential Cyprinus carpio (Carp)-35d-0.05 mg/l. |
| ENDOSULFAN I UNLABELED (959-98-8) | |
| Bioconcentration factor (BCF REACH) | 10994 |
| LINDANE (13C6, 99%) (58-89-9 (Unlabeled)) | |
| BCF - Fish [1] | 0.0091 mg/l Bioaccumulation Pimephales promels (fathead minnow) - 304 d |
| Bioconcentration factor (BCF REACH) | 674 |
| Partition coefficient n-octanol/water (Log Pow) | 3.5 at 22 °C (72 °F) |
| ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled)) | |
| Bioaccumulative potential | Bioaccumulation Leuciscus idus (Golden orfe); Bioconcentration factor (BCF): 3,890. |
| 4,4'-DDE UNLABELED (72-55-9) | |
| BCF - Fish [1] | 3.84 ug/l - Gambusia affinis (Mosquito fish) - 33 d |
| Bioconcentration factor (BCF REACH) | 12.037 |
| Partition coefficient n-octanol/water (Log Pow) | 6.51 |
| ENDOSULFAN II UNLABELED (33213-65-9) | |
| BCF - Fish [1] | 0.0001 mg/l Other fish - 21 d |
| Bioconcentration factor (BCF REACH) | 9908 |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other adverse effects : Disposal must be done according to official regulations. Environmental precautions. Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal 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 : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No : UN1920
UN-No. (TDG) : UN1920

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

UN-No. (IMDG) : 1920
UN-No. (IATA) : 1920

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Nonanes
Proper Shipping Name (TDG) : NONANES
Proper Shipping Name (IMDG) : NONANES
Proper Shipping Name (IATA) : Nonanes

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 3
Hazard labels (DOT) : 3



TDG

Transport hazard class(es) (TDG) : 3
Hazard labels (TDG) : 3



IMDG

Transport hazard class(es) (IMDG) : 3
Hazard labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : 3
Hazard labels (IATA) : 3



14.4. Packing group

Packing group (DOT) : III
Packing group (TDG) : III
Packing group (IMDG) : III
Packing group (IATA) : III

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.5. Environmental hazards

Marine pollutant : Yes (IMDG only)



Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1920
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)
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: t_r is the maximum mean bulk temperature during transport, t_f is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (t_f) and the maximum mean bulk temperature during transportation (t_r) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d_{15} and d_{50} are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
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
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

TDG

UN-No. (TDG) : UN1920
Explosive Limit and Limited Quantity Index : 5 L
Excepted quantities (TDG) : E1
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 60 L
Emergency Response Guide (ERG) Number : 128

IMDG

Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T2
Tank special provisions (IMDG) : TP1
EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|------------------------------------|---|
| EmS-No. (Spillage) | : S-E - SPILLAGE SCHEDULE Echo - FLAMMABLE LIQUIDS, FLOATING ON WATER |
| Stowage category (IMDG) | : A |
| Flash point (IMDG) | : ' |
| Properties and observations (IMDG) | : Colourless liquids. Explosive limits: 0.8% to 2.9% normal-NONANE: flashpoint 31°C c.c. Immiscible with water. Irritating to skin, eyes and mucous membranes. |
| MFAG-No | : 128 |

IATA

| | |
|--|--------|
| PCA Excepted quantities (IATA) | : E1 |
| PCA Limited quantities (IATA) | : Y344 |
| PCA limited quantity max net quantity (IATA) | : 10L |
| PCA packing instructions (IATA) | : 355 |
| PCA max net quantity (IATA) | : 60L |
| CAO packing instructions (IATA) | : 366 |
| CAO max net quantity (IATA) | : 220L |
| ERG code (IATA) | : 3L |

14.7. 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 CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

| | |
|--|--|
| 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 |

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

| Name | CAS-No. | Listing | Commercial status | Flags |
|--------------------------------|----------------------|-------------|-------------------|-------|
| HEXACHLOROBENZENE (13C6, 99%) | 118-74-1 | Present | Active | |
| HEXACHLOROBENZENE UNLABELED | 118-74-1 | Present | Active | |
| ALDRIN (13C12, 99%) | 309-00-2 (Unlabeled) | Not present | - | |
| PENTACHLOROBENZENE (13C6, 99%) | 608-93-5 (Unlabeled) | Not present | - | |
| PENTACHLOROBENZENE UNLABELED | 608-93-5 | Present | Active | S;T |
| ALDRIN UNLABELED | 309-00-2 | Not present | - | |
| DIELDRIN (13C12, 98-99%) | 60-57-1 (Unlabeled) | Not present | - | |
| 4,4'-DDE (RING-13C12, 99%) | 72-55-9 (Unlabeled) | Not present | - | |
| 4,4'-DDT (RING-13C12, 99%) | 50-29-3 | Present | Active | S |
| ENDRIN (13C12, 99%) | 72-20-8 (Unlabeled) | Not present | - | |
| DIELDRIN UNLABELED | 60-57-1 | Not present | - | |
| ENDRIN UNLABELED | 72-20-8 | Not present | - | |
| 4,4'-DDT UNLABELED | 50-29-3 | Present | Active | S |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Name | CAS-No. | Listing | Commercial status | Flags |
|--|------------------------|-------------|-------------------|-------|
| OXYCHLORDANE (13C10, 99%) | 27304-13-8 (Unlabeled) | Not present | - | |
| TRANS-NONACHLOR (13C10, 98%) | 39765-80-5 (Unlabeled) | Not present | - | |
| CIS-NONACHLOR (13C10, 98%) | 5103-73-1 (Unlabeled) | Not present | - | |
| 2,4'-DDT (RING-13C12, 99%) | 789-02-6 (Unlabeled) | Not present | - | |
| TRANS-CHLORDANE (GAMMA) (13C10, 99%) | 5103-74-2 (Unlabeled) | Not present | - | |
| 2,4'-DDD (RING-13C12, 99%) | 53-19-0 (Unlabeled) | Not present | - | |
| 2,4'-DDT UNLABELED (97% CHEMICAL PURITY) | 789-02-6 | Not present | - | |
| 2,4'-DDE (RING-13C12, 99%) | 3424-82-6 (Unlabeled) | Not present | - | |
| 4,4'-DDD (RING-13C12, 99%) | 72-54-8 (Unlabeled) | Not present | - | |
| CIS-CHLORDANE(ALPHA) UNLABELED | 5103-71-9 | Not present | - | |
| TRANS-NONACHLOR UNLABELED | 39765-80-5 | Not present | - | |
| CIS-NONACHLOR UNLABELED | 5103-73-1 | Not present | - | |
| TRANS-CHLORDANE (GAMMA) UNLABELED | 5103-74-2 | Not present | - | |
| 2,4'-DDD UNLABELED | 53-19-0 | Not present | - | |
| 2,4'-DDE UNLABELED | 3424-82-6 | Not present | - | |
| 4,4'-DDD UNLABELED | 72-54-8 | Not present | - | |
| N-NONANE UNLABELED | 111-84-2 | Present | Active | T |
| ISOOCTANE UNLABELED | 540-84-1 | Present | Active | |
| DELTA-BHC (13C6, 99%) | 319-86-8 (Unlabeled) | Not present | - | |
| MIREX (13C10, 98%) | 2385-85-5 (Unlabeled) | Not present | - | |
| BETA-BHC (13C6, 99%) | 319-85-7 (Unlabeled) | Not present | - | |
| CIS-HEPTACHLOR EPOXIDE (13C10, 99%) | 1024-57-3 (Unlabeled) | Not present | - | |
| HEPTACHLOR (13C10, 99%) | 76-44-8 (Unlabeled) | Not present | - | |
| ENDOSULFAN II (CHEMICAL PURITY >95%) (13C9, 99%) | 33213-65-9 (Unlabeled) | Not present | - | |
| ENDOSULFAN I (13C9, 99%) | 959-98-8 (Unlabeled) | Not present | - | |
| KEPONE (CHLORDECONE) (13C10, 99%) | 143-50-0 (Unlabeled) | Not present | - | |
| ALPHA-HCH (ALPHA-BHC) (13C6, 99%) | 319-84-6 | Present | Active | |
| LINDANE UNLABELED | 58-89-9 | Present | Active | |
| 2,3',4',5-TETRACB (PCB-70) (13C12, 99%) | 208263-81-4 | Not present | - | |
| 4,4'-DICB (PCB-15) (13C12, 99%) | 208263-67-6 | Not present | - | |
| MIREX UNLABELED | 2385-85-5 | Not present | - | |
| ALPHA-BHC UNLABELED | 319-84-6 | Present | Active | |
| DELTA-BHC UNLABELED | 319-86-8 | Present | Active | |
| HEPTACHLOR UNLABELED | 76-44-8 | Not present | - | |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Name | CAS-No. | Listing | Commercial status | Flags |
|---|----------------------|-------------|-------------------|-------|
| CIS-HEPTACHLOR EPOXIDE UNLABELED | 1024-57-3 | Not present | - | |
| TRANS-HEPTACHLOR EPOXIDE UNLABELED | 28044-83-9 | Not present | - | |
| BETA-BHC UNLABELED | 319-85-7 | Present | Active | |
| OXYCHLORDANE UNLABELED | 27304-13-8 | Not present | - | |
| KEPONE (CHLORDEcone) UNLABELED | 143-50-0 | Not present | - | |
| ENDOSULFAN I UNLABELED | 959-98-8 | Not present | - | |
| LINDANE (¹³ C6, 99%) | 58-89-9 (Unlabeled) | Not present | - | |
| ISODRIN (CHEMICAL PURITY 95%) (¹³ C12, 99%) | 465-73-6 (Unlabeled) | Not present | - | |
| 4,4'-DDE UNLABELED | 72-55-9 | Not present | - | |
| ENDOSULFAN II UNLABELED | 33213-65-9 | Not present | - | |

HEXACHLOROBENZENE (¹³C6, 99%) (118-74-1)

Subject to reporting requirements of United States SARA Section 313
Listed on EPA Hazardous Air Pollutant (HAPS)

| | |
|-------------------------------------|---------------------------------|
| CERCLA RQ | 10 lb |
| SARA Section 311/312 Hazard Classes | Delayed (chronic) health hazard |

HEXACHLOROBENZENE UNLABELED (118-74-1)

Subject to reporting requirements of United States SARA Section 313
Listed on EPA Hazardous Air Pollutant (HAPS)

| | |
|-------------------------------------|---------------------------------|
| CERCLA RQ | 10 lb |
| SARA Section 311/312 Hazard Classes | Delayed (chronic) health hazard |

ALDRIN (¹³C12, 99%) (309-00-2 (Unlabeled))

SARA Section 302 Threshold Planning Quantity (TPQ)

Subject to reporting requirements of United States SARA Section 302

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard

PENTACHLOROBENZENE (¹³C6, 99%) (608-93-5 (Unlabeled))

SARA Section 302 Threshold Planning Quantity (TPQ)

Not subject to reporting requirements of the United States SARA Section 302.

PENTACHLOROBENZENE UNLABELED (608-93-5)

Subject to reporting requirements of United States SARA Section 313

| | |
|-------------------------------------|--|
| CERCLA RQ | 10 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ALDRIN UNLABELED (309-00-2) | |
|---|--|
| Subject to reporting requirements of United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 1 lb |
| SARA Section 302 Threshold Planning Quantity (TPQ) | 10000 lb 500lb if the substance is solid in powder form with particle size less than 100 microns, or is in solution or molten form |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

| DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled)) | |
|---|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| 4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled)) | |
|---|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| 4,4'-DDT (RING-13C12, 99%) (50-29-3) | |
|---|--|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| ENDRIN (13C12, 99%) (72-20-8 (Unlabeled)) | |
|--|--|
| SARA Section 302 Threshold Planning Quantity (TPQ) | Listed on the United States SARA Section 302 |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

| DIELDRIN UNLABELED (60-57-1) | |
|---|--|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| ENDRIN UNLABELED (72-20-8) | |
|---|------|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ENDRIN UNLABELED (72-20-8) | |
|--|--|
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 1 lb |
| SARA Section 302 Threshold Planning Quantity (TPQ) | 10000 lb 500lb if the substance is solid in powder form with particle size less than 100 microns, or is in solution or molten form |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

| 4,4'-DDT UNLABELED (50-29-3) | |
|---|--|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| OXYCHLORDANE (13C10, 99%) (27304-13-8 (Unlabeled)) | |
|---|---|
| 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 | Immediate (acute) health hazard |

| TRANS-NONACHLOR (13C10, 98%) (39765-80-5 (Unlabeled)) | |
|--|---|
| 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 | Immediate (acute) health hazard |

| CIS-NONACHLOR (13C10, 98%) (5103-73-1 (Unlabeled)) | |
|---|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| 2,4'-DDT (RING-13C12, 99%) (789-02-6 (Unlabeled)) | |
|--|--|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| TRANS-CHLORDANE (GAMMA) (13C10, 99%) (5103-74-2 (Unlabeled)) | |
|---|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 2,4'-DDD (RING-13C12, 99%) (53-19-0 (Unlabeled)) | |
|---|--|
| 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 | Delayed (chronic) health hazard |

| 2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6) | |
|--|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| 2,4'-DDE (RING-13C12, 99%) (3424-82-6 (Unlabeled)) | |
|---|--|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| 4,4'-DDD (RING-13C12, 99%) (72-54-8 (Unlabeled)) | |
|---|--|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9) | |
|--|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| TRANS-NONACHLOR UNLABELED (39765-80-5) | |
|--|---|
| 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 | Immediate (acute) health hazard |

| CIS-NONACHLOR UNLABELED (5103-73-1) | |
|--|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2) | |
|--|--|
| SARA Section 302 Threshold Planning Quantity (TPQ) | Not subject to reporting requirements of the United States SARA Section 302. |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2) | |
|--|--|
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| 2,4'-DDD UNLABELED (53-19-0) | |
|--|--|
| SARA Section 302 Threshold Planning Quantity (TPQ) | SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302 |
| SARA Section 311/312 Hazard Classes | Delayed (chronic) health hazard |

| 2,4'-DDE UNLABELED (3424-82-6) | |
|--|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| 4,4'-DDD UNLABELED (72-54-8) | |
|---|---------------------------------|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

| N-NONANE UNLABELED (111-84-2) | |
|--|--|
| 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 |

| ISOOCTANE UNLABELED (540-84-1) | |
|---|--|
| Not subject to reporting requirements of the United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS) | |
| CERCLA RQ | 1000 lb |
| SARA Section 311/312 Hazard Classes | Fire hazard Delayed (chronic) health hazard |

| DELTA-BHC (13C6, 99%) (319-86-8 (Unlabeled)) | |
|---|--|
| SARA Section 302 Threshold Planning Quantity (TPQ) | SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302 |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| MIREX (13C10, 98%) (2385-85-5 (Unlabeled)) | |
|--|--|
| SARA Section 302 Threshold Planning Quantity (TPQ) | SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302 |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| MIREX (13C10, 98%) (2385-85-5 (Unlabeled)) | |
|---|--|
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled)) | |
|--|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled)) | |
|--|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| HEPTACHLOR (13C10, 99%) (76-44-8 (Unlabeled)) | |
|--|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| ENDOSULFAN II (CHEMICAL PURITY >95%) (13C9, 99%) (33213-65-9 (Unlabeled)) | |
|---|--|
| 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 | Immediate (acute) health hazard |

| ENDOSULFAN I (13C9, 99%) (959-98-8 (Unlabeled)) | |
|--|--|
| 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 | Immediate (acute) health hazard |

| KEPONE (CHLORDECONE) (13C10, 99%) (143-50-0 (Unlabeled)) | |
|---|--|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| ALPHA-HCH (ALPHA-BHC) (13C6, 99%) (319-84-6) | |
|---|--|
| Subject to reporting requirements of United States SARA Section 313 | |
| CERCLA RQ | 10 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| LINDANE UNLABELED (58-89-9) | |
|---|--|
| Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS) | |
| CERCLA RQ | 1 lb |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 1 lb |
| SARA Section 302 Threshold Planning Quantity (TPQ) | 10000 lb 1,000lb if the substance is solid in powder form with particle size less than 100 microns, or is in solution or molten form |

| 2,3',4',5-TETRACB (PCB-70) (13C12, 99%) (208263-81-4) | |
|--|---|
| SARA Section 302 Threshold Planning Quantity (TPQ) | Not subject to reporting requirements of the United States SARA Section 302 |

| 4,4'-DICB (PCB-15) (13C12, 99%) (208263-67-6) | |
|--|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| MIREX UNLABELED (2385-85-5) | |
|--|---|
| 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 | Immediate (acute) health hazard Delayed (chronic) health hazard |

| ALPHA-BHC UNLABELED (319-84-6) | |
|---|--|
| Subject to reporting requirements of United States SARA Section 313 | |
| CERCLA RQ | 10 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| DELTA-BHC UNLABELED (319-86-8) | |
|---|--|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| HEPTACHLOR UNLABELED (76-44-8) | |
|---|------|
| Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS) | |
| CERCLA RQ | 1 lb |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| HEPTACHLOR UNLABELED (76-44-8) | |
|---------------------------------------|--|
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3) | |
|---|--|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| TRANS-HEPTACHLOR EPOXIDE UNLABELED (28044-83-9) | |
|--|--|
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| BETA-BHC UNLABELED (319-85-7) | |
|---|--|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| OXYCHLORDANE UNLABELED (27304-13-8) | |
|--|---|
| 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 | Immediate (acute) health hazard |

| KEPONE (CHLORDECONE) UNLABELED (143-50-0) | |
|---|--|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| ENDOSULFAN I UNLABELED (959-98-8) | |
|---|---------------------------------|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

| LINDANE (13C6, 99%) (58-89-9 (Unlabeled)) | |
|--|--|
| SARA Section 302 Threshold Planning Quantity (TPQ) | Listed on the United States SARA Section 302 |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled)) | |
|--|--|
| SARA Section 302 Threshold Planning Quantity (TPQ) | Listed on the United States SARA Section 302 |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

| 4,4'-DDE UNLABELED (72-55-9) | |
|---|--|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |

| ENDOSULFAN II UNLABELED (33213-65-9) | |
|---|---------------------------------|
| Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 1 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

15.2. International regulations

CANADA

| EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| HEXACHLOROBENZENE (13C6, 99%) (118-74-1) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| HEXACHLOROBENZENE UNLABELED (118-74-1) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| PENTACHLOROBENZENE UNLABELED (608-93-5) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| ALDRIN UNLABELED (309-00-2) |
|---|
| Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List) |

| 4,4'-DDT (RING-13C12, 99%) (50-29-3) |
|---|
| Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List) |

| DIELDRIN UNLABELED (60-57-1) |
|---|
| Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List) |

| ENDRIN UNLABELED (72-20-8) |
|---|
| Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List) |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

4,4'-DDT UNLABELED (50-29-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

CIS-CHLORDANE(ALPHA) UNLABELED (5103-71-9)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

TRANS-NONACHLOR UNLABELED (39765-80-5)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

CIS-NONACHLOR UNLABELED (5103-73-1)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

2,4'-DDD UNLABELED (53-19-0)

Listed on the Canadian DSL (Domestic Substances List)

2,4'-DDE UNLABELED (3424-82-6)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

4,4'-DDD UNLABELED (72-54-8)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

N-NONANE UNLABELED (111-84-2)

Listed on the Canadian DSL (Domestic Substances List)

ISOOCTANE UNLABELED (540-84-1)

Listed on the Canadian DSL (Domestic Substances List)

ALPHA-HCH (ALPHA-BHC) (¹³C6, 99%) (319-84-6)

Listed on the Canadian NDSL (Non-Domestic Substances List)

LINDANE UNLABELED (58-89-9)

Listed on the Canadian DSL (Domestic Substances List)

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2,3',4',5-TETRACB (PCB-70) (13C12, 99%) (208263-81-4)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

4,4'-DICB (PCB-15) (13C12, 99%) (208263-67-6)

Listed on the Canadian DSL (Domestic Substances List)

MIREX UNLABELED (2385-85-5)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

ALPHA-BHC UNLABELED (319-84-6)

Listed on the Canadian NDSL (Non-Domestic Substances List)

DELTA-BHC UNLABELED (319-86-8)

Listed on the Canadian NDSL (Non-Domestic Substances List)

HEPTACHLOR UNLABELED (76-44-8)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

TRANS-HEPTACHLOR EPOXIDE UNLABELED (28044-83-9)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

BETA-BHC UNLABELED (319-85-7)

Listed on the Canadian NDSL (Non-Domestic Substances List)

OXYCHLORDANE UNLABELED (27304-13-8)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

KEPONE (CHLORDECONE) UNLABELED (143-50-0)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

ENDOSULFAN I UNLABELED (959-98-8)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

4,4'-DDE UNLABELED (72-55-9)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

ENDOSULFAN II UNLABELED (33213-65-9)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

EU-Regulations

No additional information available

National regulations

HEXACHLOROBENZENE (¹³C6, 99%) (118-74-1)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

HEXACHLOROBENZENE UNLABELED (118-74-1)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

PENTACHLOROBENZENE UNLABELED (608-93-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

ALDRIN UNLABELED (309-00-2)

Listed on IARC (International Agency for Research on Cancer)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

4,4'-DDT (RING-¹³C12, 99%) (50-29-3)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
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DIELDRIN UNLABELED (60-57-1)

Listed on IARC (International Agency for Research on Cancer)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

ENDRIN UNLABELED (72-20-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

4,4'-DDT UNLABELED (50-29-3)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

4,4'-DDD UNLABELED (72-54-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

ISOOCTANE UNLABELED (540-84-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

ALPHA-HCH (ALPHA-BHC) (13C6, 99%) (319-84-6)

Listed as carcinogen on NTP (National Toxicology Program)

LINDANE UNLABELED (58-89-9)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

MIREX UNLABELED (2385-85-5)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

ALPHA-BHC UNLABELED (319-84-6)

Listed as carcinogen on NTP (National Toxicology Program)

HEPTACHLOR UNLABELED (76-44-8)

Listed on IARC (International Agency for Research on Cancer)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

BETA-BHC UNLABELED (319-85-7)

Listed as carcinogen on NTP (National Toxicology Program)

KEPONE (CHLORDECONE) UNLABELED (143-50-0)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

| | |
|----------------------------|---|
| State or local regulations | 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 |
|----------------------------|---|

HEXACHLOROBENZENE (13C6, 99%) (118-74-1)

| 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) | Maximum allowable dose level (MADL) |
|---|---|---|---|----------------------------------|-------------------------------------|
| Yes | Yes | Yes | Yes | 0.4 µg/day | |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| HEXACHLOROBENZENE UNLABELED (118-74-1) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | 0.4 µg/day | |

| ALDRIN (¹³ C ₁₂ , 99%) (309-00-2 (Unlabeled)) | | | | | |
|--|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | | |

| ALDRIN UNLABELED (309-00-2) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 0.04 µg/day | |

| DIELDRIN (¹³ C ₁₂ , 98-99%) (60-57-1 (Unlabeled)) | | | | | |
|--|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | | |

| 4,4'-DDE (RING- ¹³ C ₁₂ , 99%) (72-55-9 (Unlabeled)) | | | | | |
|--|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | | |

| 4,4'-DDT (RING- ¹³ C ₁₂ , 99%) (50-29-3) | | | | | |
|--|---|---|---|---|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | 2 µg/day (DDT, DDE, DDD in combination) | |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| ENDRIN (¹³C12, 99%) (72-20-8 (Unlabeled)) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| No | Yes | Yes | Yes | | |

| DIELDRIN UNLABELED (60-57-1) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 0.04 µg/day | |

| ENDRIN UNLABELED (72-20-8) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| No | Yes | Yes | Yes | | |

| 4,4'-DDT UNLABELED (50-29-3) | | | | | |
|---|---|---|---|---|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | 2 µg/day (DDT, DDE, DDD in combination) | |

| 2,4'-DDT (RING-¹³C12, 99%) (789-02-6 (Unlabeled)) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| No | Yes | Yes | Yes | | |

| 2,4'-DDT UNLABELED (97% CHEMICAL PURITY) (789-02-6) | | | | | |
|--|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| No | Yes | Yes | Yes | | |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 4,4'-DDD (RING-13C12, 99%) (72-54-8 (Unlabeled)) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | | |

| TRANS-CHLORDANE (GAMMA) UNLABELED (5103-74-2) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | | |

| 4,4'-DDD UNLABELED (72-54-8) | | | | | |
|---|---|---|---|---|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 2 µg/day (DDT, DDE, DDD in combination) | |

| DELTA-BHC (13C6, 99%) (319-86-8 (Unlabeled)) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| No | Yes | Yes | Yes | | |

| MIREX (13C10, 98%) (2385-85-5 (Unlabeled)) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | | |

| BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled)) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | | |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/13C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled)) | | | | | |
|--|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | | |

| HEPTACHLOR (13C10, 99%) (76-44-8 (Unlabeled)) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | | |

| KEPONE (CHLORDECONE) (13C10, 99%) (143-50-0 (Unlabeled)) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | | |

| ALPHA-HCH (ALPHA-BHC) (13C6, 99%) (319-84-6) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 0.3 µg/day | |

| LINDANE UNLABELED (58-89-9) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 0.6 µg/day | |

| 2,3',4',5-TETRACB (PCB-70) (13C12, 99%) (208263-81-4) | | | | | |
|--|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | No | | |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 4,4'-DICB (PCB-15) (¹³ C ₁₂ , 99%) (208263-67-6) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | | |

| MIREX UNLABELED (2385-85-5) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 0.04 µg/day | |

| ALPHA-BHC UNLABELED (319-84-6) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 0.3 µg/day | |

| HEPTACHLOR UNLABELED (76-44-8) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | 0.2 µg/day | |

| CIS-HEPTACHLOR EPOXIDE UNLABELED (1024-57-3) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 0.08 µg/day | |

| BETA-BHC UNLABELED (319-85-7) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 0.5 µg/day | |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| KEPONE (CHLORDECONE) UNLABELED (143-50-0) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | 0.04 µg/day | |

| LINDANE (13C6, 99%) (58-89-9 (Unlabeled)) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| No | Yes | Yes | Yes | | |

| 4,4'-DDE UNLABELED (72-55-9) | | | | | |
|---|---|---|---|---|-------------------------------------|
| 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) | Maximum allowable dose level (MADL) |
| Yes | Yes | Yes | Yes | 2 µg/day (DDT, DDE, DDD in combination) | |

| Component | State or local regulations |
|---|---|
| HEXACHLOROBENZENE (13C6, 99%)(118-74-1) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| HEXACHLOROBENZENE UNLABELED(118-74-1) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| PENTACHLOROBENZENE UNLABELED(608-93-5) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| ALDRIN UNLABELED(309-00-2) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| 4,4'-DDT (RING-13C12, 99%)(50-29-3) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| DIELDRIN UNLABELED(60-57-1) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| ENDRIN UNLABELED(72-20-8) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| 4,4'-DDT UNLABELED(50-29-3) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| 4,4'-DDD UNLABELED(72-54-8) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| N-NONANE UNLABELED(111-84-2) | 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 |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Component | State or local regulations |
|--|---|
| ISOOCTANE UNLABELED(540-84-1) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| ALPHA-HCH (ALPHA-BHC) (13C6, 99%)(319-84-6) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| LINDANE UNLABELED(58-89-9) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| 4,4'-DICB (PCB-15) (13C12, 99%)(208263-67-6) | U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - New Jersey - Right to Know Hazardous Substance List |
| MIREX UNLABELED(2385-85-5) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| ALPHA-BHC UNLABELED(319-84-6) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| DELTA-BHC UNLABELED(319-86-8) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| HEPTACHLOR UNLABELED(76-44-8) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| CIS-HEPTACHLOR EPOXIDE UNLABELED(1024-57-3) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| BETA-BHC UNLABELED(319-85-7) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| KEPONE (CHLORDECONE) UNLABELED(143-50-0) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| ENDOSULFAN I UNLABELED(959-98-8) | U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) List |
| 4,4'-DDE UNLABELED(72-55-9) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| ENDOSULFAN II UNLABELED(33213-65-9) | U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) List |

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date

: 09/08/2023

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 H-phrases | |
|------------------------|-----------------------------------|
| H225 | Highly flammable liquid and vapor |
| H226 | Flammable liquid and vapor |
| H228 | Flammable solid |

EXPANDED POPS PESTICIDES CALIBRATION SOLUTION CS5 (UNLABELED/¹³C, 99%) IN NONANE/ISOOCTANE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Full text of H-phrases | |
|------------------------|---|
| 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 |
| 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 |
| H371 | May cause 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 |

Safety Data Sheet (SDS), USA

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.