



US EPA METHOD 8290 MATRIX SPIKING SOLUTION UNLABELED

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 1/4/2023 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : US EPA METHOD 8290 MATRIX SPIKING SOLUTION UNLABELED
Product code : EDF-5008

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
Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation
Reproductive toxicity Category 2	H361	Suspected of damaging the unborn child, Suspected of damaging fertility. (Inhalation, Dermal, oral)
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 – Acute Hazard Category 2	H401	Toxic to aquatic life

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

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Precautionary statements (GHS US)	: H319 - Causes serious eye irritation H332 - Harmful if inhaled H336 - May cause drowsiness or dizziness H361 - Suspected of damaging the unborn child, Suspected of damaging fertility. (Inhalation, Dermal, oral) H401 - Toxic to aquatic life P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground/Bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. P264 - Wash hands, forearms and face thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+P310 - If swallowed: Immediately call a poison center or doctor. P302+P352 - If on skin: Wash with plenty of water. P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 - If exposed or concerned: Get medical advice/attention. P312 - Call a poison center or doctor if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P331 - Do NOT induce vomiting. P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P370+P378 - In case of fire: Use media other than water 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 hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
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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

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3.2. Mixtures

Name	Product identifier	%	GHS US classification
N-NONANE UNLABELED	CAS-No.: 111-84-2	99.795466	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
TOLUENE UNLABELED	CAS-No.: 108-88-3	0.203916	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401
OCTACHLORODIBENZOFURAN UNLABELED	CAS-No.: 39001-02-0	0.000069	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413
OCTACHLORODIBENZO-P-DIOXIN UNLABELED	CAS-No.: 3268-87-9	0.000069	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED	CAS-No.: 40321-76-4	0.000035	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	CAS-No.: 39227-28-6	0.000035	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	CAS-No.: 19408-74-3	0.000035	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Carc. 1A, H350
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	CAS-No.: 57652-85-7	0.000035	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED	CAS-No.: 35822-46-9	0.000035	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED	CAS-No.: 57117-31-4	0.000035	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413
1,2,3,7,8-PENTACHLORODIBENZOFURAN UNLABELED	CAS-No.: 57117-41-6	0.000035	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED	CAS-No.: 67562-39-4	0.000035	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED	CAS-No.: 55673-89-7	0.000035	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413

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Name	Product identifier	%	GHS US classification
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UNLABELED	CAS-No.: 70648-26-9	0.000035	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UNLABELED	CAS-No.: 72918-21-9	0.000035	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED	CAS-No.: 60851-34-5	0.000035	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED	CAS-No.: 57117-44-9	0.000035	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413
2,3,7,8-TCDD UNLABELED	CAS-No.: 1746-01-6	0.000014	Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 1, H410
2,3,7,8-TETRACHLORODIBENZOFURAN UNLABELED	CAS-No.: 51207-31-9	0.000014	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413

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 person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell. Give oxygen or artificial respiration if necessary.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
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	: Do not induce vomiting. Call a physician immediately.

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. Suspected of damaging fertility. Suspected of damaging the unborn child.
Symptoms/effects after inhalation	: Harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation. May be harmful in contact with skin.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. Risk of lung edema.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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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.
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

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

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Dike and contain spill. Dispose as hazardous waste. Comply with local regulations for disposal.
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. 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.
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 : Avoid all contact with skin, eyes, or clothing. Keep away from sources of ignition - No smoking. Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer). Take precautionary measures against static discharges.
Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing fume, gas, mist, spray, vapors. Avoid contact with skin and eyes.

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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 : Store in a well-ventilated place. Keep container tightly closed. Keep dry. Ground/bond container and receiving equipment.
Storage conditions : Store at room temperature away from light and moisture.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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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
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

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N-NONANE UNLABELED (111-84-2)	
NIOSH REL TWA [ppm]	200 ppm USA. NIOSH Recommended Exposure Limits
Remark (NIOSH)	Central Nervous System impairment
2,3,7,8-TCDD UNLABELED (1746-01-6)	
No additional information available	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED (40321-76-4)	
No additional information available	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (39227-28-6)	
No additional information available	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (19408-74-3)	
No additional information available	
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (57652-85-7)	
No additional information available	
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED (35822-46-9)	
No additional information available	
2,3,7,8-TETRACHLORODIBENZOFURAN UNLABELED (51207-31-9)	
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.
2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-31-4)	
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.
1,2,3,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-41-6)	
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.
OCTACHLORODIBENZOFURAN UNLABELED (39001-02-0)	
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.
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED (67562-39-4)	
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.
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED (55673-89-7)	
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.

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1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UNLABELED (70648-26-9)	
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.
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UNLABELED (72918-21-9)	
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.
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (60851-34-5)	
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.
OCTACHLORODIBENZO-P-DIOXIN UNLABELED (3268-87-9)	
No additional information available	
TOLUENE UNLABELED (108-88-3)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	20 ppm USA. ACGIH Threshold Limit Values (TLV)
Remark (ACGIH)	Visual impairment. Female reproductive. Pregnancy loss. 2015 Adoption. Substances for which there is a Biological Exposure Index or Indices (see BEI® section). Not classifiable as a human carcinogen.; Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0300 mg/l Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0200 mg/l Biological specimen: In blood Remarks: Prior to last shift of workweek Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: o-Cresol Value: 0.3000 mg/g Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA [1]	375 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
OSHA PEL TWA [2]	100 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
OSHA PEL STEL [1]	560 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
OSHA PEL STEL [2]	150 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
OSHA PEL C [ppm]	300 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-2
Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	500 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-2
Remark (OSHA)	OSHA PEL (TWA) - 200 ppm - USA. Occupational Exposure Limits (OSHA) - Table Z-2. Remarks: Z37.12-1967
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	375 mg/m³ USA. NIOSH Recommended Exposure Limits
NIOSH REL TWA [ppm]	100 ppm USA. NIOSH Recommended Exposure Limits
NIOSH REL STEL	560 mg/m³ USA. NIOSH Recommended Exposure Limits
NIOSH REL STEL [ppm]	150 ppm USA. NIOSH Recommended Exposure Limits

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1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (57117-44-9)

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.

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:

protective gloves

Eye protection:

Chemical goggles or face shield. Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing, gloves and eye/face protection

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Approved respirator

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 : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
Mixture contains one or more component(s) which have the following odour:
No data available aromatic
Odor threshold : No data available
pH : No data available
Melting point : Not applicable
Freezing point : -53 °C (- 63 °F) - lit
Boiling point : 340 °C (644 °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.

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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	: Lower explosion limit: 0.87 – 2.9 vol % (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.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂).

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.

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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

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Additional data	Skin corrosion/irritation, Dermal, rat: Result: Skin Irritation (Draize Test) S. Typhimurium Result negative
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
2,3,7,8-TCDD UNLABELED (1746-01-6)	
LD50 oral rat	0.02 mg/kg
LD50 dermal rabbit	275 µg/kg
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED (40321-76-4)	
ATE US (oral)	500 mg/kg body weight
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (39227-28-6)	
ATE US (oral)	500 mg/kg body weight
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (19408-74-3)	
ATE US (oral)	500 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
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (57652-85-7)	
ATE US (oral)	500 mg/kg body weight
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED (35822-46-9)	
ATE US (oral)	500 mg/kg body weight
2,3,7,8-TETRACHLORODIBENZOFURAN UNLABELED (51207-31-9)	
ATE US (oral)	500 mg/kg body weight
2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-31-4)	
ATE US (oral)	500 mg/kg body weight
1,2,3,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-41-6)	
ATE US (oral)	500 mg/kg body weight
OCTACHLORODIBENZOFURAN UNLABELED (39001-02-0)	
ATE US (oral)	500 mg/kg body weight
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED (67562-39-4)	
ATE US (oral)	500 mg/kg body weight

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1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED (55673-89-7)	
ATE US (oral)	500 mg/kg body weight
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UNLABELED (70648-26-9)	
ATE US (oral)	500 mg/kg body weight
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UNLABELED (72918-21-9)	
ATE US (oral)	500 mg/kg body weight
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (60851-34-5)	
ATE US (oral)	500 mg/kg body weight
OCTACHLORODIBENZO-P-DIOXIN UNLABELED (3268-87-9)	
ATE US (oral)	500 mg/kg body weight
TOLUENE UNLABELED (108-88-3)	
LD50 oral rat	> 5580 mg/kg
LD50 dermal rabbit	12196 mg/kg
LC50 Inhalation - Rat	12,500 - 28,800 mg/m ³ - 4 h
ATE US (dermal)	12196 mg/kg body weight
ATE US (vapors)	12.5 mg/l/4h
ATE US (dust, mist)	12.5 mg/l/4h
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (57117-44-9)	
ATE US (oral)	500 mg/kg body weight
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
2,3,7,8-TCDD UNLABELED (1746-01-6)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	Known Human Carcinogens
2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-31-4)	
IARC group	1 - Carcinogenic to humans
TOLUENE UNLABELED (108-88-3)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Suspected of damaging the unborn child, Suspected of damaging fertility. (Inhalation, Dermal, oral).
STOT-single exposure	: May cause drowsiness or dizziness.
N-NONANE UNLABELED (111-84-2)	
STOT-single exposure	May cause drowsiness or dizziness.
2,3,7,8-TCDD UNLABELED (1746-01-6)	
STOT-single exposure	May cause drowsiness or dizziness.

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TOLUENE UNLABELED (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
2,3,7,8-TCDD UNLABELED (1746-01-6)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure (Dermal, Inhalation, oral).
TOLUENE UNLABELED (108-88-3)	
STOT-repeated exposure	May cause damage to organs (kidneys, liver, urinary bladder, brain) through prolonged or repeated exposure (Dermal, Inhalation, oral).
Aspiration hazard	: May be fatal if swallowed and enters airways.
Viscosity, kinematic	: ≤ 1.008 mm ² /s at 20 °C (68 °F)
N-NONANE UNLABELED (111-84-2)	
Viscosity, kinematic	≤ 1.008 mm ² /s at 20 °C (68 °F)
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. Suspected of damaging fertility. Suspected of damaging the unborn child.
Symptoms/effects after inhalation	: Harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation. May be harmful in contact with skin.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. Risk of lung edema.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life.

2,3,7,8-TCDD UNLABELED (1746-01-6)	
LC50 - Fish [1]	0.001 µg/l <i>Oryzias latipes</i> - 72 h
TOLUENE UNLABELED (108-88-3)	
EC50 - Crustacea [1]	8 mg/l <i>Daphnia magna</i> (Water flea) - 24h
LC50 - Fish [2]	7.63 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout) - 96 h
EC50 - Crustacea [2]	6 mg/l <i>Daphnia magna</i> (Water flea) - Immobilization - 48 h
ErC50 algae	245 mg/l <i>Chlorella vulgaris</i> (Fresh water algae) - 24 h
ErC50 other aquatic plants	10 mg/l <i>Pseudokirchneriella subcapitata</i> (Green algae) - 24 h
NOEC (chronic)	5.44 mg/l <i>Pimephales promelas</i> (fathead minnow) - 7 d

12.2. Persistence and degradability

2,3,7,8-TCDD UNLABELED (1746-01-6)	
Persistence and degradability	May cause long-term adverse effects in the environment.
TOLUENE UNLABELED (108-88-3)	
Persistence and degradability	Readily biodegradable.

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12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water (Log Pow)	5.65
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.
2,3,7,8-TCDD UNLABELED (1746-01-6)	
Partition coefficient n-octanol/water (Log Pow)	6.64
TOLUENE UNLABELED (108-88-3)	
BCF - Fish [1]	0.05 mg/l <i>Leuciscus idus</i> (Golden orfe) - 3 d
Bioconcentration factor (BCF REACH)	90

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Disposal must be done according to official regulations. 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

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

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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

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

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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: tr is the maximum mean bulk temperature during transport, tf 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 (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 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
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

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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

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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
N-NONANE UNLABELED	111-84-2	Present	Active	T
2,3,7,8-TCDD UNLABELED	1746-01-6	Not present	-	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED	40321-76-4	Not present	-	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	39227-28-6	Not present	-	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	19408-74-3	Not present	-	
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	57652-85-7	Not present	-	
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED	35822-46-9	Not present	-	
2,3,7,8-TETRACHLORODIBENZOFURAN UNLABELED	51207-31-9	Not present	-	
2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED	57117-31-4	Not present	-	
1,2,3,7,8-PENTACHLORODIBENZOFURAN UNLABELED	57117-41-6	Not present	-	
OCTACHLORODIBENZOFURAN UNLABELED	39001-02-0	Not present	-	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED	67562-39-4	Not present	-	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED	55673-89-7	Not present	-	
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UNLABELED	70648-26-9	Not present	-	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UNLABELED	72918-21-9	Not present	-	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED	60851-34-5	Not present	-	

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Name	CAS-No.	Listing	Commercial status	Flags
OCTACHLORODIBENZO-P-DIOXIN UNLABELED	3268-87-9	Not present	-	
TOLUENE UNLABELED	108-88-3	Present	Active	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED	57117-44-9	Not present	-	

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

2,3,7,8-TCDD UNLABELED (1746-01-6)

Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED (40321-76-4)

Subject to reporting requirements of United States SARA Section 313	
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1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (39227-28-6)

Subject to reporting requirements of United States SARA Section 313	
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1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (19408-74-3)

Subject to reporting requirements of United States SARA Section 313	
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1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (57652-85-7)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED (35822-46-9)

Subject to reporting requirements of United States SARA Section 313	
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2,3,7,8-TETRACHLORODIBENZOFURAN UNLABELED (51207-31-9)

Subject to reporting requirements of United States SARA Section 313	
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2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-31-4)

Subject to reporting requirements of United States SARA Section 313	
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1,2,3,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-41-6)

Subject to reporting requirements of United States SARA Section 313

OCTACHLORODIBENZOFURAN UNLABELED (39001-02-0)

Subject to reporting requirements of United States SARA Section 313

1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED (67562-39-4)

Subject to reporting requirements of United States SARA Section 313

1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED (55673-89-7)

Subject to reporting requirements of United States SARA Section 313

1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UNLABELED (70648-26-9)

Subject to reporting requirements of United States SARA Section 313

1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UNLABELED (72918-21-9)

Subject to reporting requirements of United States SARA Section 313

2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (60851-34-5)

Subject to reporting requirements of United States SARA Section 313

OCTACHLORODIBENZO-P-DIOXIN UNLABELED (3268-87-9)

Subject to reporting requirements of United States SARA Section 313

TOLUENE UNLABELED (108-88-3)

CERCLA RQ	1000 lb
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	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard

1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (57117-44-9)

Subject to reporting requirements of United States SARA Section 313

15.2. International regulations

CANADA

N-NONANE UNLABELED (111-84-2)

Listed on the Canadian DSL (Domestic Substances List)

2,3,7,8-TCDD UNLABELED (1746-01-6)

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

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1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED (40321-76-4)

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

1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (39227-28-6)

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

1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (19408-74-3)

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

1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED (35822-46-9)

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

2,3,7,8-TETRACHLORODIBENZOFURAN UNLABELED (51207-31-9)

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

2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-31-4)

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

1,2,3,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-41-6)

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

OCTACHLORODIBENZOFURAN UNLABELED (39001-02-0)

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

1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED (67562-39-4)

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

1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED (55673-89-7)

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

1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UNLABELED (70648-26-9)

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

1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UNLABELED (72918-21-9)

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

2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (60851-34-5)

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

OCTACHLORODIBENZO-P-DIOXIN UNLABELED (3268-87-9)

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

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TOLUENE UNLABELED (108-88-3)

Listed on the Canadian DSL (Domestic Substances List)

1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (57117-44-9)

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

EU-Regulations

No additional information available

National regulations

2,3,7,8-TCDD UNLABELED (1746-01-6)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)

1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED (35822-46-9)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-31-4)

Listed on IARC (International Agency for Research on Cancer)

OCTACHLORODIBENZOFURAN UNLABELED (39001-02-0)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED (67562-39-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED (55673-89-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

OCTACHLORODIBENZO-P-DIOXIN UNLABELED (3268-87-9)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

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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

2,3,7,8-TCDD UNLABELED (1746-01-6)

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	No	No	0.000005 µg/day	

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1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED (40321-76-4)					
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	No	No	No		

1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (39227-28-6)					
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		

1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (19408-74-3)					
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		

1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (57652-85-7)					
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		

1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED (35822-46-9)					
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		

2,3,7,8-TETRACHLORODIBENZOFURAN UNLABELED (51207-31-9)					
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		

2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-31-4)					
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	No	No	No		

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2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-31-4)					
Yes	No	No	No		

1,2,3,7,8-PENTACHLORODIBENZOFURAN UNLABELED (57117-41-6)					
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		

OCTACHLORODIBENZOFURAN UNLABELED (39001-02-0)					
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	No	No	No		

1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED (67562-39-4)					
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	No	No	No		

1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED (55673-89-7)					
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		

1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UNLABELED (70648-26-9)					
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		

1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UNLABELED (72918-21-9)					
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		

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2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (60851-34-5)					
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		

OCTACHLORODIBENZO-P-DIOXIN UNLABELED (3268-87-9)					
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		

TOLUENE UNLABELED (108-88-3)					
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)
No	Yes	No	No	7000 µg/day	

1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED (57117-44-9)					
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		

Component	State or local regulations
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
2,3,7,8-TCDD UNLABELED(1746-01-6)	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
TOLUENE UNLABELED(108-88-3)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

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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

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Full text of H-phrases	
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

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.