

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 11/17/2014 Revision date: 1/28/2019 Supersedes: 11/17/2014 Version: 2.0

SECTION 1: Identification	
1.1. Identification	
Product form Product name Product code	: Mixture : PCN NATIVE PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE : ECN-5497
1.2. Recommended use and restrictions or	n 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 <u>cilsales@isotope.com</u> - <u>www.isotope.com</u>	
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:dust,mist) Category 4	H332	Harmful if inhaled
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye 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
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) Hazard statements (GHS US)



- : Danger
- : H226 Flammable liquid and vapor
 - $\ensuremath{\mathsf{H304}}$ May be fatal if swallowed and enters airways
 - H315 Causes skin irritation
 - H319 Causes serious eye irritation
 - H332 Harmful if inhaled
 - H336 May cause drowsiness or dizziness

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Precautionary statements (GHS US)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No
	smoking. sparks, open flames, hot surfaces, heat
	P233 - Keep container tightly closed.
	P240 - Ground/Bond container and receiving equipment.
	P241 - Use explosion-proof ventilating, lighting, electrical equipment.
	P242 - Use only non-sparking tools.
	P243 - Take precautionary measures against static discharge.
	P261 - Avoid breathing vapors, spray, mist, gas, fume, dust.
	P264 - Wash Both hands thoroughly after handling.
	P271 - Use only outdoors or in a well-ventilated area.
	P280 - Wear protective gloves, protective clothing.
	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.
	P312 - Call a poison center or doctor if you feel unwell.
	P321 - Specific treatment (see Hazard pictograms (CLP) on this label).
	P331 - Do NOT induce vomiting.
	P332+P313 - If skin irritation occurs: Get medical advice/attention.
	P337+P313 - If eye irritation persists: Get medical advice/attention.
	P362 - Take off contaminated clothing and wash before reuse.
	P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water
	spray to extinguish.
	P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
	P403+P235 - Store in a well-ventilated place. Keep cool.
	P405 - Store locked up.
	P501 - Dispose of contents/container to Comply with applicable regulations.

2.3. Other hazards 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	99.99902	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
1,2,3,4-TETRACHLORONAPHTHALENE UNLABELED	CAS-No.: 20020-02-4 (Unlabeled)	0.00014	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Chronic 4, H413

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Name	Product identifier	%	GHS US classification
1,2,3,5,7-PENTACN UNLABELED	CAS-No.: 53555-65-0	0.00014	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT RE 1, H372 STOT RE 2, H373 Aquatic Chronic 1, H410
1,2,3,4,6,7-HEXACN UNLABELED	CAS-No.: 103426-96- 6	0.00014	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT RE 1, H372 STOT RE 2, H373 Aquatic Chronic 1, H410
1,2,3,5,6,8-HEXACN UNLABELED	CAS-No.: 103426-95- 5 (Unlabeled)	0.00014	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT RE 1, H372 STOT RE 2, H373 Aquatic Chronic 1, H410
1,2,3,4,5,6,7-HEPTACN UNLABELED	CAS-No.: 58863-14-2	0.00014	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT RE 1, H372 STOT RE 2, H373 Aquatic Chronic 1, H410
1,2,3,5,6,7-HEXACN UNLABELED	CAS-No.: 103426-97- 7 (Unlabeled)	0.00014	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 1, H370 STOT SE 2, H371 Aquatic Chronic 1, H410
OCTACHLORONAPHTHALENE UNLABELED	CAS-No.: 2234-13-1 (Unlabeled)	0.00014	Acute Tox. 4 (Oral), H302 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	: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
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. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Wash with plenty of soap and water. Get medical advice/attention. Specific treatment (see Hazard pictograms (CLP) on this label).
First-aid measures after eye contact First-aid measures after ingestion	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.Immediately call a poison center or doctor/physician.

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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 after inhalation	: Harmful if inhaled. May cause drowsiness or dizziness. Danger of serious damage to health by prolonged exposure through inhalation.	
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

No additional information available

SECTION 5: Fire-fighting measures 5.1. Suitable (and unsuitable) extinguishing media			
5.2. Specific hazards arising from the chemical			
Fire hazard Hazardous decomposition products in case of fire	Flammable liquid and vapor.Toxic fumes may be released.		
5.3. Special protective equipment and prec	autions for fire-fighters		
Firefighting instructions Protection during firefighting	 Do not enter fire area without proper protective equipment, including respiratory protection. 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 Methods for cleaning up	 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. Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. 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.			

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SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed Precautions for safe handling Hygiene measures	 Handle empty containers with care because residual vapors are flammable. 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. Avoid breathing dust, mist or spray. Wash Both hands thoroughly after handling.
7.2. Conditions for safe storage, including	
Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical equipment.
Storage conditions Incompatible materials	 Store at room temperature away from light and moisture. Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PCN NATIVE PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE		
No additional information available		
1,2,3,4-TETRACHLORONAPHTHALENE UNLA	BELED (20020-02-4 (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.	
1,2,3,5,7-PENTACN UNLABELED (53555-65-0)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	0.5 mg/m³ Skin	
USA - OSHA - Occupational Exposure Limits	USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA [1]	0.5 mg/m³ Skin	
1,2,3,4,6,7-HEXACN UNLABELED (103426-96-	6)	
USA - OSHA - Occupational Exposure Limits		
OSHA PEL TWA [1]	0.2 mg/m³ Skin	
1,2,3,5,6,8-HEXACN UNLABELED (103426-95-5 (Unlabeled))		
No additional information available		
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.	

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N-NONANE UNLABELED (111-84-2) USA - OSHA - Occupational Exposure Limits OSHA PEL TWA [1] 1050 mg/m³ 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 1050 California permissible exposure limits for chemical contaminants. USA - NIOSH - Occupational Exposure Limits 200 ppm California permissible exposure limits for chemical contaminants. USA - NIOSH - Occupational Exposure Limits NIOSH REL TWA NIOSH REL TWA 1050 mg/m³ USA. NIOSH Recommended Exposure Limits NIOSH REL TWA [ppm] 200 ppm USA. NIOSH Recommended Exposure Limits NIOSH REL TWA [ppm] 200 ppm USA. NIOSH Recommended Exposure Limits NIOSH REL TWA [ppm] 200 ppm USA. NIOSH Recommended Exposure Limits NIOSH REL TWA [ppm] 200 ppm USA. NIOSH Recommended Exposure Limits No additional information available 1,2,3,4,5,6,7-HEPTACN UNLABELED (58863-14-2) No additional information available 0 OCTACHLORONAPHTHALENE UNLABELED (2234-13-1 (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 ident				
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8.2. Appropriate engineering controls	ble as a			
8.2. Appropriate engineering controls				
No additional information available				
8.3. Individual protection measures/Personal protective equipment				
Personal protective equipment: Gloves. Protective goggles. Protective clothing. Self-contained breathing apparatus.				
Hand protection:				
Wear suitable protective clothing and gloves				
Eye protection:				
Wear safety glasses with side shields (or goggles) and a face shield.				
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.				
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SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and chemical properties		
9.1. Information on basic physical and ch Physical state Appearance Color Odor Odor threshold pH Melting point Freezing point Boiling point Flash point Relative evaporation rate (butyl acetate=1) Flammability (solid, gas)	 Liquid Liquid. Colorless No data available No data available No data available No tapplicable -53 °C (- 63 °F) - lit 151 °C (304 °F) - lit 31 °C (87.8 °F) - closed cup No data available Flammable liquid and vapor. 	
Vapor pressure Relative vapor density at 20°C Relative density Density Molecular mass Solubility Partition coefficient n-octanol/water (Log Pow) Auto-ignition temperature Decomposition temperature Viscosity, kinematic Viscosity, kinematic Viscosity, dynamic Explosion limits Explosive properties Oxidizing properties	: $5.69 \text{ hPa} (4.27 \text{ mmHg}) \text{ at } 25 \text{ °C} (77 \text{ °F})$: No data available : No data available : $0.718 \text{ g/ml} \text{ at } 25 \text{ °C} (77 \text{ °F})$: 128.3 g/mol : $Vater: 0.0002 \%$: 5.65 : $205 \text{ °C} (401 \text{ °F})$: No data available : $\leq 1.008 \text{ mm}^2/\text{s} \text{ at } 20 \text{ °C} (68 \text{ °F})$: No data available : $0.87 - 2.9 \% (V)$: No data available : No data available : No data available : 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).

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1.1. Information on toxicological effec	ts		
cute toxicity (oral) cute toxicity (dermal) cute toxicity (inhalation)	: Not classified : Not classified : Harmful if inhaled.		
PCN NATIVE PAR SOLUTION UNLABE	LED 1000 NG/ML IN NONANE		
LC50 Inhalation - Rat	23760 mg/m³ male - 4 h		
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		
1,2,3,4-TETRACHLORONAPHTHALENE	E UNLABELED (20020-02-4 (Unlabeled))		
ATE US (oral)	500 mg/kg body weight		
1,2,3,5,7-PENTACN UNLABELED (53555-65-0)			
ATE US (oral)	500 mg/kg body weight		
1,2,3,4,6,7-HEXACN UNLABELED (103426-96-6)			
ATE US (oral)	500 mg/kg body weight		
1,2,3,5,6,8-HEXACN UNLABELED (103426-95-5 (Unlabeled))			
ATE US (oral)	500 mg/kg body weight		
N-NONANE UNLABELED (111-84-2)			
LC50 Inhalation - Rat	23760 mg/m³ 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		
1,2,3,4,5,6,7-HEPTACN UNLABELED (5	8863-14-2)		
ATE US (oral)	500 mg/kg body weight		
1,2,3,5,6,7-HEXACN UNLABELED (103426-97-7 (Unlabeled))			
ATE US (oral)	500 mg/kg body weight		
OCTACHLORONAPHTHALENE UNLAE	BELED (2234-13-1 (Unlabeled))		
ATE US (oral)	500 mg/kg body weight		
kin corrosion/irritation	: Causes skin irritation.		
erious eye damage/irritation	: Causes serious eye irritation.		
espiratory or skin sensitization	: Not classified		
Germ cell mutagenicity	: Not classified		
arcinogenicity	: Not classified		
eproductive toxicity	: Not classified		

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N-NONANE UNLABELED (111-84-2)			
STOT-single exposure	May cause drowsiness or dizziness.		
1,2,3,5,6,7-HEXACN UNLABELED (103426-97-7 (Unlabeled))			
STOT-single exposure	Causes damage to organs (liver, Skin) (Dermal, Inhalation, oral). May cause damage to org (liver, Skin) (Dermal, Inhalation, oral).		
STOT-repeated exposure	: Not classified		
1,2,3,5,7-PENTACN UNLABELED (53555-65	-0)		
STOT-repeated exposure	Causes damage to organs (liver, Skin) through prolonged or repeated exposure (Dermal, Inhalation, oral). May cause damage to organs (liver, Skin) through prolonged or repeated exposure (Dermal, oral, Inhalation).		
1,2,3,4,6,7-HEXACN UNLABELED (103426-96-6)			
STOT-repeated exposure	Causes damage to organs (liver, Skin) through prolonged or repeated exposure (Dermal, Inhalation, oral). May cause damage to organs (Skin, liver) through prolonged or repeated exposure (Dermal, Inhalation, oral).		
1,2,3,5,6,8-HEXACN UNLABELED (103426-95-5 (Unlabeled))			
STOT-repeated exposure	Causes damage to organs (liver, Skin) through prolonged or repeated exposure (Dermal, Inhalation, oral). May cause damage to organs (liver, Skin) through prolonged or repeated exposure (Dermal, Inhalation, oral).		
1,2,3,4,5,6,7-HEPTACN UNLABELED (58863	-14-2)		
STOT-repeated exposure	Causes damage to organs (liver, Skin) through prolonged or repeated exposure (Dermal, Inhalation, oral). May cause damage to organs (liver, Skin) through prolonged or repeated exposure (Dermal, Inhalation, oral).		
Aspiration hazard /iscosity, kinematic	 May be fatal if swallowed and enters airways. ≤ 1.008 mm²/s at 20 °C (68 °F) 		
N-NONANE UNLABELED (111-84-2)			
Viscosity, kinematic	≤ 1.008 mm²/s at 20 °C (68 °F)		
Potential Adverse human health effects and symptoms Symptoms/effects after inhalation	 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. Harmful if inhaled. May cause drowsiness or dizziness. Danger of serious damage to health by prolonged exposure through inhalation. 		
Symptoms/effects after skin contact	: Causes skin irritation.		
Symptoms/effects after eye contact Symptoms/effects after ingestion	Causes serious eye irritation.May be fatal if swallowed and enters airways.		
ymptomo/onooto anor ingeotion	. May be fata in Swallowed and effects all ways.		

SECTION 12: Ecological information

12.1. Toxicity		
	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.	
OCTACHLORONAPHTHALENE UNLABELED ((2234-13-1 (Unlabeled))	
LC50 - Fish [1]	> 600 mg/l Lepomis macrochirus (Bluegill) - 96 h	
EC50 - Crustacea [1]	> 530 mg/l Daphnia magna (Water flea) - 48 h	
ErC50 algae	> 500 mg/l Pseudokirchneriella subcapitata (green algae) - 72 h	
NOEC (chronic)	560 mg/l Cyprinodon variegatus (sheepshead minnow) - 96 h	

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1,2,3,4,6,7-HEXACN UNLABELED (103426-96-6	5)		
Persistence and degradability	No data available.		
OCTACHLORONAPHTHALENE UNLABELED (2234-13-1 (Unlabeled))		
Persistence and degradability	Not available.		
12.3. Bioaccumulative potential			
PCN NATIVE PAR SOLUTION UNLABELED 10	00 NG/ML IN NONANE		
Partition coefficient n-octanol/water (Log Pow)	5.65		
Bioaccumulative potential	Indication of bioaccumulation.		
1,2,3,4-TETRACHLORONAPHTHALENE UNLA	BELED (20020-02-4 (Unlabeled))		
Partition coefficient n-octanol/water (Log Pow)	5.314		
1,2,3,5,7-PENTACN UNLABELED (53555-65-0)			
Partition coefficient n-octanol/water (Log Pow)	6.88		
1,2,3,4,6,7-HEXACN UNLABELED (103426-96-6	3)		
Partition coefficient n-octanol/water (Log Pow)	6.88		
Bioaccumulative potential	No data available.		
1,2,3,5,6,8-HEXACN UNLABELED (103426-95-5 (Unlabeled))			
Partition coefficient n-octanol/water (Log Pow)	6.88		
N-NONANE UNLABELED (111-84-2)			
Partition coefficient n-octanol/water (Log Pow)	5.65		
Bioaccumulative potential	Indication of bioaccumulation.		
1,2,3,4,5,6,7-HEPTACN UNLABELED (58863-14-2)			
Partition coefficient n-octanol/water (Log Pow)	6.88		
1,2,3,5,6,7-HEXACN UNLABELED (103426-97-7	7 (Unlabeled))		
Partition coefficient n-octanol/water (Log Pow)	6.88		
OCTACHLORONAPHTHALENE UNLABELED (2234-13-1 (Unlabeled))		
Partition coefficient n-octanol/water (Log Pow)	6.42		
Bioaccumulative potential	Not available.		
12.4. Mobility in soil			
1,2,3,4,6,7-HEXACN UNLABELED (103426-96-6)			
Ecology - soil	No data available.		
OCTACHLORONAPHTHALENE UNLABELED (2234-13-1 (Unlabeled))		
Ecology - soil	Not available.		
12.5. Other adverse effects			
Other adverse effects : I	Disposal must be done according to official regulations.		

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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
Product/Packaging disposal recommendations	 environmental control regulations. 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 UN-No. (TDG) UN-No. (IMDG) UN-No. (IATA)	: UN1920 : UN1920 : 1920 : 1920
14.2. UN proper shipping name	
Proper Shipping Name (DOT) Proper Shipping Name (TDG) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	: Nonanes : NONANES : NONANES : Nonanes
14.3. Transport hazard class(es)	
DOT Transport hazard class(es) (DOT) Hazard labels (DOT)	: 3 : 3
TDG Transport hazard class(es) (TDG) Hazard labels (TDG)	: 3 : 3
IMDG Transport hazard class(es) (IMDG) Hazard labels (IMDG)	
IATA Transport hazard class(es) (IATA)	: 3

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Hazard labels (IATA)	: 3
14.4. Packing group	
Packing group (DOT) Packing group (TDG) Packing group (IMDG) Packing group (IATA)	: III : III : III : 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) DOT Special Provisions (49 CFR 172.102)	 : UN1920 : 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
DOT Packaging Exceptions (49 CFR 173.xxx) DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx) DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) DOT Vessel Stowage Location	: 150 : 203 : 242
TDG UN-No. (TDG) Explosive Limit and Limited Quantity Index Excepted quantities (TDG)	: UN1920 : 5 L : E1

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Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 60 L
Emergency Response Guide (ERG) Number	: 128
IMDG	
Limited quantities (IMDG)	: 5L
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
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

PCN NATIVE PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE				
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting r	equirements of the l	United States SARA S	ection 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
1,2,3,4-TETRACHLORONAPHTHALENE UNLABELED	20020-02-4 (Unlabeled)	Not present	-	
1,2,3,5,7-PENTACN UNLABELED	53555-65-0	Not present	-	
1,2,3,4,6,7-HEXACN UNLABELED	103426-96-6	Not present	-	
1,2,3,5,6,8-HEXACN UNLABELED	103426-95-5 (Unlabeled)	Not present	-	
N-NONANE UNLABELED	111-84-2	Present	Active	т
1,2,3,4,5,6,7-HEPTACN UNLABELED	58863-14-2	Not present	-	

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Name	CAS-No.		Commercial status	Flags
1,2,3,5,6,7-HEXACN UNLABELED	103426-97-7 (Unlabeled)	Not present	-	
OCTACHLORONAPHTHALENE UNLABELED	2234-13-1 (Unlabeled)	Not present	-	

1,2,3,4-TETRACHLORONAPHTHALENE UNLABELED (20020-02-4 (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	

1,2,3,5,7-PENTACN UNLABELED (53555-65-0)	
SARA Section 302 Threshold Planning Quantity Not subject to reporting requirements of the United States SARA Section 302. (TPQ) Image: Comparison of the United States SARA Section 302.	

1,2,3,4,6,7-HEXACN UNLABELED (103426-96-6)	
SARA Section 302 Threshold Planning Quantity Not subject to reporting requirements of the United States SARA Section 302. (TPQ) Image: Comparison of the United States SARA Section 302.	

1,2,3,5,6,8-HEXACN UNLABELED (103426-95-5 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity Not subject to reporting requirements of the United States SARA Section 302. (TPQ) Image: Comparison of the United States SARA Section 302.	

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.
	Fire hazard Immediate (acute) health hazard

1,2,3,4,5,6,7-HEPTACN UNLABELED (58863-14-2)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.

1,2,3,5,6,7-HEXACN UNLABELED (103426-97-7 (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

OCTACHLORONAPHTHALENE UNLABELED (2234-13-1 (Unlabeled))	
	Immediate (acute) health hazard Delayed (chronic) health hazard

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15.2. International regulations

CANADA

PCN NATIVE PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE

Listed on the Canadian DSL (Domestic Substances List)

1,2,3,5,7-PENTACN UNLABELED (53555-65-0)

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

1,2,3,4,6,7-HEXACN UNLABELED (103426-96-6)

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)

1,2,3,4,5,6,7-HEPTACN UNLABELED (58863-14-2)

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

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

PCN NATIVE PAR SOLUTION UNLABELED 1000 NG/ML IN NONANE	
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
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

SECTION 16: Other information

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

Revision date	
Other information	

: 01/28/2019

: 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	
H226	Flammable liquid and vapor
H302	Harmful if swallowed

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

Full text of H-phrases	
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
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
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.