

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 19/11/2014 Version: 1.0 Revision date:

EC-5181

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

Product identifier

Product form : Mixture

: PCB SYRINGE SPIKE (13C12, 99%) 100 NG/ML IN NONANE Product name.

Product code : EC-5181

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

Relevant identified uses

: Professional use Main use category

: For professional use only. Industrial/Professional use spec

Industrial.

1.2.2. Uses advised against

No additional information available

Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.

50 Frontage Road Andover, MA 01810

USA

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

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours) International: 1-202-483-7616 (24 hours)

SECTION 2: Hazards identification

Classification of the substance or mixture

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

Flam. Liq. 3 H226 Acute Tox. 4 (Inhalation:dust,mist) H332 Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H336 Asp. Tox. 1 H304

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R20 Xn; R65 R10

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 3 H226 Acute Tox. 4 (Inhalation:dust,mist) H332 Skin Irrit. 2 H315 H319 Eye Irrit. 2A **STOT SE 3** H336 Asp. Tox. 1 H304

Adverse physicochemical, human health and environmental effects

Central Nervous System.

21/11/2014 EN (English) 1/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Label elements 22

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

Hazard pictograms (CLP)







Signal word (CLP) : Danger

Hazardous ingredients N-NONANE UNLABELED

Hazard statements (CLP) H226 - Flammable liquid and vapour

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

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical, lighting, ventilating equipment P261 - Avoid breathing dust, fume, gas, mist, spray, vapours P264 - Wash Both hands thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves

GHS-US labelling

Hazard pictograms (GHS-US)







Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H226 - Flammable liquid and vapour

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

P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking Precautionary statements (GHS-US)

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 dust, fume, gas, mist, spray, vapours P264 - Wash Both hands thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves

P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician

P302+P352 - IF ON SKIN: Wash with plenty of soap and water

P303+P361+P353 - IF ON SKIN (or hair): Řemove/Take off immediately all contaminated

clothing. Rinse skin with water/shower

P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position 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/doctor/physician if you feel unwell P321 - Specific treatment (see Hazard pictograms (CLP) on this label)

P331 - If swallowed, 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 for extinction

P403+P233 - Store in a well-ventilated place. Keep container tightly closed

21/11/2014 EN (English) 2/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P403+P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

P501 - Dispose of contents/container to Comply with applicable regulations.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
N-NONANE UNLABELED	(CAS No)111-84-2 (EC no)203-913-4	99.9999583	R10 Xn; R20 Xn; R65 R67
2,3,3',5,5'-PENTACB (PCB-111) (13C12, 99%)	(CAS No)235416-29-2 (EC index no)602-039-00-4	0.0000139	Xn; R48/20/21/22 N; R50/53 R33
2,3',4',5-TETRACB (PCB-70) (13C12, 99%)	(CAS No)208263-81-4 (EC index no)602-039-00-4	0.0000139	N; R50/53 R33 R48
2,2',3,4,4',5'-HEXACB (PCB-138) (13C12, 99%)	(CAS No)208263-66-5 (EC index no)602-039-00-4	0.0000139	Xn; R48/20/21/22 N; R50/53 R33

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
N-NONANE UNLABELED	(CAS No)111-84-2 (EC no)203-913-4	99.9999583	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
2,3,3',5,5'-PENTACB (PCB-111) (13C12, 99%)	(CAS No)235416-29-2 (EC index no)602-039-00-4	0.0000139	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,3',4',5-TETRACB (PCB-70) (13C12, 99%)	(CAS No)208263-81-4 (EC index no)602-039-00-4	0.0000139	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,4,4',5'-HEXACB (PCB-138) (13C12, 99%)	(CAS No)208263-66-5 (EC index no)602-039-00-4	0.0000139	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Name	Product identifier	%	GHS-US classification
N-NONANE UNLABELED	(CAS No)111-84-2	99.9999583	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336 Asp. Tox. 1, H304
2,3,3',5,5'-PENTACB (PCB-111) (13C12, 99%)	(CAS No)235416-29-2	0.0000139	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,3',4',5-TETRACB (PCB-70) (13C12, 99%)	(CAS No)208263-81-4	0.0000139	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,4,4',5'-HEXACB (PCB-138) (13C12, 99%)	(CAS No)208263-66-5	0.0000139	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

21/11/2014 EN (English) 3/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON

CENTER/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. 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. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or

doctor/physician.

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

Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if

inhaled. May cause drowsiness or dizziness.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

Reactivity : Vapour is explosive with air above.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Avoid (reject) fire-fighting water to enter environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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 naked lights. No

smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust, mist or spray.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain spillage, then collect with non-combustible absorbent material. Disposal should be in

accordance with applicable Federal, State and local regulations.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect

spillage. Store aways from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

21/11/2014 EN (English) 4/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and

when leaving work. Provide good ventilation in process area to prevent formation of vapour. No naked lights. 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.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before

breaks and at the end of workday.

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. Use explosion-proof electrical equipment.

Storage conditions : Store at room temperature away from light and moisture.

Incompatible products : Strong bases, strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

N-NONANE	UNLABELED ((111-84-2)
IN INCINAL	OHLADELED	(I I I O T L)

Italy - Portugal- USA ACGIH ACGIH TWA (ppm) 200.0000000000 ppm Central Nervous System impairment.

8.2. Exposure controls

Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



Hand protection : Wear protective gloves.

Eye protection : 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.

Other information : When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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

Physical state : Liquid

Appearance : Liquid.

Molecular mass : 128.3

Colour : Colourless.

Odour : characteristic.

Odour threshold : No data available

pH : No data available

pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : -53 °C (- 63 °F) - lit
Freezing point : No data available
Boiling point : 151 °C (304 °F) - lit

Flash point : 31.0 °C (87.8 °F) - closed cup

Self ignition temperature : 205 °C (401 °F)

Decomposition temperature : No data available

Flammability (solid, gas) : Flammable liquid and vapour

Vapour pressure : 12.4 hPa (9.3 mmHg) at 37.7 °C (99.9 °F)

Relative vapour density at 20 °C : No data available

21/11/2014 EN (English) 5/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Relative density : No data available Solubility : Water: 0 % Log Pow : 5.65

Log Kow : No data available : No data available Viscosity, kinematic Viscosity, dynamic : No data available Explosive properties : No data available Oxidising properties : No data available Explosive limits : 0.87 - 2.9 % (V)

Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapour is explosive with air above.

Chemical stability

See storage and expiration date on CoA.

Possibility of hazardous reactions

Not established.

10.4. **Conditions to avoid**

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

Incompatible materials

strong acids. Strong bases.

Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

Information on toxicological effects 11.1.

: Harmful if inhaled. Acute toxicity

PCB SYRINGE SPIKE (13C12, 99%) 100 NG/ML IN NONANE	
ATE (dust,mist)	1.500 mg/l/4h

N-NONANE UNLABELED (111-84-2)	
LC50 inhalation rat (ppm)	3200 ppm/4h
ATE (dust,mist)	1.500 mg/l/4h

Skin corrosion/irritation : Causes skin irritation. Serious eye damage/irritation Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity Not classified

Based on available data, the classification criteria are not met

Reproductive toxicity Not classified

Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness.

Specific target organ toxicity (repeated

exposure)

: Not classified

Based on available data, the classification criteria are not met

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

Potential Adverse human health effects and

symptoms

: Harmful if inhaled.

Symptoms/injuries after inhalation Danger of serious damage to health by prolonged exposure through inhalation. Harmful if

inhaled. May cause drowsiness or dizziness.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

21/11/2014 EN (English) 6/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2.	Persistence and degradabilit	2.7
14.4.	reisistelle allu ueulauabilli	·V

PCB SYRINGE SPIKE (13C12, 99%) 100 NG/ML IN NONANE	
Persistence and degradability	Not established.

N-NONANE UNLABELED (111-84-2)

Persistence and degradability Not available.

2,2',3,4,4',5'-HEXACB (PCB-138) (13C12, 99%) (208263-66-5)

Persistence and degradability Not available.

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

Persistence and degradability Not available.

2,3,3',5,5'-PENTACB (PCB-111) (13C12, 99%) (235416-29-2)

Persistence and degradability Not available.

12.3. Bioaccumulative potential

PCB SYRINGE SPIKE (13C12, 99%) 100 NG/ML IN NONANE	
Log Pow	5.65
Bioaccumulative potential	Not established

N-NONANE UNLABELED (111-84-2)

Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.

2,2',3,4,4',5'-HEXACB (PCB-138) (13C12, 99%) (208263-66-5)

Bioaccumulative potential Not available.

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

Bioaccumulative potential Not available.

2,3,3',5,5'-PENTACB (PCB-111) (13C12, 99%) (235416-29-2)

Bioaccumulative potential Not available

12.4. Mobility in soil

N-NONANE UNLABELED (111-84-2)

Ecology - soil Not available.

2,2',3,4,4',5'-HEXACB (PCB-138) (13C12, 99%) (208263-66-5)

Ecology - soil Not available.

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

Ecology - soil Not available.

2,3,3',5,5'-PENTACB (PCB-111) (13C12, 99%) (235416-29-2)

Ecology - soil Not available.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and Local

environmental control regulations.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to Comply with applicable regulations.

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

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

21/11/2014 EN (English) 7/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No.(DOT) : 1920 DOT NA no. UN1920

14.2. UN proper shipping name

DOT Proper Shipping Name : Nonanes

Department of Transportation (DOT) Hazard

Classes

Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : III - Minor Danger

DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the

bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this

subchapter are applicable.

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

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

: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

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

filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 242

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : III

Class (ADR) : 3 - Flammable liquids

Hazard identification number (Kemler No.) : 30 Classification code (ADR) : F1

Danger labels (ADR) : 3 - Flammable liquids



Orange plates

30 1920

Tunnel restriction code : D/E
Limited quantities (ADR) 5L
EAC code : 3Y
Excepted quantities (ADR) : E1

Transport by sea

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

passenger vessel.

MFAG-No : 128

21/11/2014 EN (English) 8/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 60 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L

CFR 175.75)

Civil Aeronautics Law : Flammable liquids(Hazardous materials notice Appended Table 1 Article 194 of the

Enforcement Regulations)

14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

PCB SYRINGE SPIKE (13C12, 99%) 100 NG/ML IN NONANE	
SARA Section 311/312 Hazard Classes	Fire hazard
	Immediate (acute) health hazard

N-NONANE UNLABELED (111-84-2)

SARA Section 311/312 Hazard Classes Fire hazard Immediate (acute) health hazard

2.3.3'.5.5'-PENTACB (PCB-111) (13C12, 99%) (235416-29-2)

2,0,0,0,0 1 E1117 (10012, 3070) (200410 20 2)	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
	Delayed (chronic) health hazard

15.2. International regulations

CANADA

PCB SYRINGE SPIKE (13C12, 99%) 100 NG/ML IN NONANE

Listed on the Canadian DSL (Domestic Sustances List) inventory.

15.2.1. National regulations

No additional information available

15.3. US State regulations

PCB SYRINGE SPIKE (13C12, 99%) 100 NG/ML IN NONANE()

State or local regulations

U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - New Jersey - Right to Know Hazardous Substance List

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

N-NONANE UNLABELED (111-84-2)

U.S. - Massachusetts - Right To Know List

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - New Jersey - Right to Know Hazardous Substance List

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

2,2',3,4,4',5'-HEXACB (PCB-138) (13C12, 99%) (208263-66-5)

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - New Jersey - Right to Know Hazardous Substance List

WARNING! This product contains a chemical known by the state of California to cause cancer, birth defects or other reproductive harm.

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

21/11/2014 EN (English) 9/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and 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)

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - New Jersey - Right to Know Hazardous Substance List

WARNING! This product contains a chemical known by the state of California to cause cancer, birth defects or other reproductive harm.

2,3,3',5,5'-PENTACB (PCB-111) (13C12, 99%) (235416-29-2)

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - New Jersey - Right to Know Hazardous Substance List

WARNING! This product contains a chemical known by the state of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE

COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending

Regulation (EC) No 1907/2006.

Other information : This product is not radioactive. The data given for this product are those of the corresponding

unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the

corresponding unlabeled compound.

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

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — AcuteHazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H226	Flammable liquid and vapour
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
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
R10	Flammable
R20	Harmful by inhalation
R33	Danger of cumulative effects
R48	Danger of serious damage to health by prolonged exposure
R48/20/21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65	Harmful: may cause lung damage if swallowed
R67	Vapours may cause drowsiness and dizziness
N	Dangerous for the environment
Xn	Harmful

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt

medical attention is given.

NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all

ambient conditions.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.

2 0

21/11/2014 EN (English) 10/11

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard Physical : 0 Minimal Hazard

CIL Mixture SDS

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

21/11/2014 EN (English) 11/11