



MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/¹³C12, 99%)

Safety Data Sheet

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

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Version: 2.0

EC-5414-CS3

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

1.1. Product identifier

Product form : Mixtures
Product name : MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/¹³C12, 99%)
Product code : EC-5414-CS3

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

1.2.1. Relevant identified uses

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

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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

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

Emergency telephone number

Emergency numbers:

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 2	H225
Acute Tox. 4 (Inhalation)	H332
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
STOT SE 3	H336
Asp. Tox. 1	H304
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

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

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

F; R11
Xn; R20
Xi; R36/38
N; R50/53
Xn; R65
R67

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2	H225
Acute Tox. 4 (Inhalation)	H332
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
STOT SE 3	H336

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Asp. Tox. 1 H304
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

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

2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment
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.

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H225 - Highly flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
P264 - Wash both hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective 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

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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+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water spray to extinguish.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to Comply with applicable regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
N-NONANE UNLABELED	(CAS-No.) 111-84-2 (EC-No.) 203-913-4	50.9248882	R10 Xn; R20 Xn; R65 Xi; R36/38 R67
ISOOCTANE UNLABELED	(CAS-No.) 540-84-1 (EC-No.) 208-759-1 (EC Index-No.) 601-009-00-8 (REACH-no) 01-2119457965-22	49.0747288	Xi; R38 N; R50/53 R67 F; R11 Xn; R65
4-MONOCB UNLABELED	(CAS-No.) 2051-62-9 (EC-No.) 218-127-7	0.0000142	Xn; R48/20
2,4'-DICB UNLABELED	(CAS-No.) 34883-43-7 (EC Index-No.) 602-039-00-4	0.0000142	Xn; R48/20/21/22 N; R50/53 R33
2,2',3,3',4,4',5,5'-OCTACB UNLABELED	(CAS-No.) 35694-08-7	0.0000142	Xn; R48/20 N; R50/53
2,2',3,3',4,4',5,5',6-NONACB UNLABELED	(CAS-No.) 40186-72-9	0.0000142	R33
DECACHLOROBIPHENYL UNLABELED	(CAS-No.) 2051-24-3 (EC-No.) 218-115-1 (EC Index-No.) 602-039-00-4	0.0000142	Carc.Cat.1; R45 Carc.Cat.1; R49 Repr.Cat.1; R60 Repr.Cat.1; R61 Xn; R20/21/22 Xi; R38 N; R50/53
4-MONOCB (PCB-3) (13C12, 99%)	(CAS-No.) 208263-77-8 (EC-No.) 218-127-7 (Unlabeled)	0.0000142	N; R50/53
2,4'-DICB (PCB-8) (13C12, 98%)	(CAS-No.) 34883-43-7 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	Xn; R48/20/21/22 N; R50/53 R33
2,4,4'-TRICB (PCB-28) (13C12, 99%)	(CAS-No.) 208263-76-7 (EC-No.) 230-293-2 (Unlabeled) (EC Index-No.) 602-039-00-4 (Unlabeled)	0.0000142	Xn; R20/21/22 N; R50/53 R48
2,2',5,5'-TETRACB (PCB-52) (13C12, 99%)	(CAS-No.) 208263-80-3 (EC Index-No.) 602-039-00-4	0.0000142	Carc.Cat.1; R45 N; R51/53 Xn; R48/20/21/22
2,2',4,5,5'-PENTACB (PCB-101) (13C12, 99%)	(CAS-No.) 104130-39-4 (EC Index-No.) 602-039-00-4 (Unlabeled)	0.0000142	Xn; R48/20 N; R50/53

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Name	Product identifier	%	Classification according to Directive 67/548/EEC
2,3',4,4',5-PENTACB (PCB-118) (13C12, 98%)	(CAS-No.) 104130-40-7 (EC-No.) 215-648-1 (EC Index-No.) 602-039-00-4	0.0000142	Xn; R48/20/21/22 N; R50/53 R33
2,3,4,4',5-PENTACB (PCB-114) (13C12, 99%)	(CAS-No.) 208263-63-2 (EC Index-No.) 602-039-00-4	0.0000142	Xn; R48/20/21/22 N; R50/53 R33
2,2',3,4,4',5'-HEXACB (PCB-138) (13C12, 99%)	(CAS-No.) 208263-66-5 (EC Index-No.) 602-039-00-4	0.0000142	Xn; R48/20/21/22 N; R50/53 R33
2,2',4,4',5,5'-HEXACB (PCB-153) (13C12, 99%)	(CAS-No.) 185376-58-3 (EC Index-No.) 602-039-00-4	0.0000142	N; R50/53 R33 R48
2,2',3,4,4',5,5'-HEPTACB (PCB-180) (13C12, 99%)	(CAS-No.) 35065-29-3 (Unlabeled)	0.0000142	N; R50/53
2,2',3,3',4,4',5,5'-OCTACB (PCB-194) (13C12, 98%)	(CAS-No.) 208263-74-5 (EC Index-No.) 602-039-00-4	0.0000142	Xn; R48/20/21/22 N; R50/53 R33
2,2',3,3',4,4',5-HEPTACB (PCB-170) (13C12, 99%)	(CAS-No.) 35065-30-6 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	N; R50/53 R33
2,2',3,3',4,4'-HEXACB (PCB-128) (13C12, 99%)	(CAS-No.) 38380-07-3 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	Xn; R48/20/21/22 N; R50/53 R33
3,3',4,5,5'-PENTACB (PCB-127) (13C12, 99%)	(CAS-No.) 39635-33-1 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	N; R50/53 R33 R48
2,3',4,5-TETRACB (PCB-70) (13C12, 99%)	(CAS-No.) 208263-81-4 (EC Index-No.) 602-039-00-4	0.0000142	N; R50/53 R33 R48
2,2',3,3',4,4',5,5',6-NONACB (PCB-206) (13C12, 99%)	(CAS-No.) 208263-75-6 (EC Index-No.) 602-039-00-4	0.0000142	Xn; R48/20/21/22 N; R50/53
DECACB (PCB-209) (13C12, 99%)	(CAS-No.) 105600-27-9 (EC-No.) 218-115-1 (Unlabeled) (EC Index-No.) 602-039-00-4 (Unlabeled)	0.0000142	Carc.Cat.1; R45 Carc.Cat.1; R49 Repr.Cat.1; R60 Repr.Cat.1; R61 Xn; R20/21/22 Xi; R38 N; R50/53
2,4',6-TRICB (PCB-32) (13C12, 99%)	(CAS-No.) 38444-77-8 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	Xn; R48/20/21/22 N; R50/53 R33
2,4,4'-TRICB UNLABELED	(CAS-No.) 7012-37-5 (EC-No.) 230-293-2	0.0000071	Xi; R36/37/38 N; R50/53
2,2',5,5'-TETRACB UNLABELED	(CAS-No.) 35693-99-3 (EC Index-No.) 602-039-00-4	0.0000071	Xn; R22 N; R50/53
2,2',4,5,5'-PENTACB UNLABELED	(CAS-No.) 37680-73-2	0.0000071	R33
2,3',4,4',5-PENTACB UNLABELED	(CAS-No.) 31508-00-6 (EC-No.) 215-648-1 (EC Index-No.) 602-039-00-4	0.0000071	Xn; R22
2,3,4,4',5-PENTACB UNLABELED	(CAS-No.) 74472-37-0 (EC Index-No.) 602-039-00-4	0.0000071	Xn; R22 N; R50/53
2,2',3,4,4',5'-HEXACB UNLABELED	(CAS-No.) 35065-28-2	0.0000071	N; R50/53 R33
2,2',4,4',5,5'-HEXACB UNLABELED	(CAS-No.) 35065-27-1 (EC-No.) 215-648-1	0.0000071	R33
2,2',3,4,4',5,5'-HEPTACB UNLABELED	(CAS-No.) 35065-29-3	0.0000071	R33

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N-NONANE UNLABELED	(CAS-No.) 111-84-2 (EC-No.) 203-913-4	50.9248882	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 Asp. Tox. 1, H304
ISOOCTANE UNLABELED	(CAS-No.) 540-84-1 (EC-No.) 208-759-1 (EC Index-No.) 601-009-00-8 (REACH-no) 01-2119457965-22	49.0747288	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4-MONOCB UNLABELED	(CAS-No.) 2051-62-9 (EC-No.) 218-127-7	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,4'-DICB UNLABELED	(CAS-No.) 34883-43-7 (EC Index-No.) 602-039-00-4	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,3',4,4',5,5'-OCTACB UNLABELED	(CAS-No.) 35694-08-7	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,3',4,4',5,5',6-NONACB UNLABELED	(CAS-No.) 40186-72-9	0.0000142	Carc. 1B, H350 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
DECACHLOROBIPHENYL UNLABELED	(CAS-No.) 2051-24-3 (EC-No.) 218-115-1 (EC Index-No.) 602-039-00-4	0.0000142	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Carc. 1A, H350 Repr. 1A, H360 STOT SE 2, H371 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4-MONOCB (PCB-3) (13C12, 99%)	(CAS-No.) 208263-77-8 (EC-No.) 218-127-7 (Unlabeled)	0.0000142	Carc. 1B, H350 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,4'-DICB (PCB-8) (13C12, 98%)	(CAS-No.) 34883-43-7 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,4,4'-TRICB (PCB-28) (13C12, 99%)	(CAS-No.) 208263-76-7 (EC-No.) 230-293-2 (Unlabeled) (EC Index-No.) 602-039-00-4 (Unlabeled)	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',5,5'-TETRACB (PCB-52) (13C12, 99%)	(CAS-No.) 208263-80-3 (EC Index-No.) 602-039-00-4	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',4,5,5'-PENTACB (PCB-101) (13C12, 99%)	(CAS-No.) 104130-39-4 (EC Index-No.) 602-039-00-4 (Unlabeled)	0.0000142	STOT RE 2, H373 Aquatic Chronic 1, H410
2,3',4,4',5-PENTACB (PCB-118) (13C12, 98%)	(CAS-No.) 104130-40-7 (EC-No.) 215-648-1 (EC Index-No.) 602-039-00-4	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,3,4,4',5-PENTACB (PCB-114) (13C12, 99%)	(CAS-No.) 208263-63-2 (EC Index-No.) 602-039-00-4	0.0000142	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	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',4,4',5,5'-HEXACB (PCB-153) (13C12, 99%)	(CAS-No.) 185376-58-3 (EC Index-No.) 602-039-00-4	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,4,4',5,5'-HEPTACB (PCB-180) (13C12, 99%)	(CAS-No.) 35065-29-3 (Unlabeled)	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,3',4,4',5,5'-OCTACB (PCB-194) (13C12, 98%)	(CAS-No.) 208263-74-5 (EC Index-No.) 602-039-00-4	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,3',4,4',5-HEPTACB (PCB-170) (13C12, 99%)	(CAS-No.) 35065-30-6 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,3',4,4'-HEXACB (PCB-128) (13C12, 99%)	(CAS-No.) 38380-07-3 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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3,3',4,5,5'-PENTACB (PCB-127) (13C12, 99%)	(CAS-No.) 39635-33-1 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	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	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,3',4,4',5,5',6-NONACB (PCB-206) (13C12, 99%)	(CAS-No.) 208263-75-6 (EC Index-No.) 602-039-00-4	0.0000142	Carc. 1B, H350 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
DECACB (PCB-209) (13C12, 99%)	(CAS-No.) 105600-27-9 (EC-No.) 218-115-1 (Unlabeled) (EC Index-No.) 602-039-00-4 (Unlabeled)	0.0000142	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Carc. 1A, H350 Repr. 1A, H360 STOT SE 2, H371 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,4',6-TRICB (PCB-32) (13C12, 99%)	(CAS-No.) 38444-77-8 (Unlabeled) (EC Index-No.) 602-039-00-4	0.0000142	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,4,4'-TRICB UNLABELED	(CAS-No.) 7012-37-5 (EC-No.) 230-293-2	0.0000071	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',5,5'-TETRACB UNLABELED	(CAS-No.) 35693-99-3 (EC Index-No.) 602-039-00-4	0.0000071	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',4,5,5'-PENTACB UNLABELED	(CAS-No.) 37680-73-2	0.0000071	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,3',4,4',5-PENTACB UNLABELED	(CAS-No.) 31508-00-6 (EC-No.) 215-648-1 (EC Index-No.) 602-039-00-4	0.0000071	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,3,4,4',5-PENTACB UNLABELED	(CAS-No.) 74472-37-0 (EC Index-No.) 602-039-00-4	0.0000071	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,4,4',5'-HEXACB UNLABELED	(CAS-No.) 35065-28-2	0.0000071	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',4,4',5,5'-HEXACB UNLABELED	(CAS-No.) 35065-27-1 (EC-No.) 215-648-1	0.0000071	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,4,4',5,5'-HEPTACB UNLABELED	(CAS-No.) 35065-29-3	0.0000071	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	50.9248882	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
ISOCTANE UNLABELED	(CAS-No.) 540-84-1	49.0747288	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

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First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. 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	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Immediately call a poison center or doctor/physician.

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

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

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Firefighting instructions	: Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not 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 open flames. No smoking.

6.1.1. For non-emergency personnel

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

6.1.2. For emergency responders

Protective equipment : Avoid breathing dust, mist or spray.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling	: No open flames. No smoking. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust, mist or spray.
Hygiene measures	: Wash Both hands thoroughly after handling.

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 materials	: Heat sources.

7.3. Specific end use(s)

No additional information available

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	CNS impair
2,2',5,5'-TETRACB UNLABELED (35693-99-3)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.5 mg/m ³
DECACHLOROBIPHENYL UNLABELED (2051-24-3)		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.001 mg/m ³ USA. NIOSH Recommended Exposure Limits. Remarks : Potential Occupational Carcinogen.
2,2',5,5'-TETRACB (PCB-52) (13C12, 99%) (208263-80-3)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.5 mg/m ³
N-NONANE UNLABELED (111-84-2)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	CNS impair
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	1050 mg/m ³ USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (TWA) (ppm)	200 ppm USA. NIOSH Recommended Exposure Limits
USA NIOSH	Remark (NIOSH)	Central Nervous System impairment
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1050 mg/m ³ USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	1050 California permissible exposure limits for chemical contaminants.
USA OSHA	OSHA PEL (Ceiling) (ppm)	200 ppm California permissible exposure limits for chemical contaminants.
ISOOCANE UNLABELED (540-84-1)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	300.00000000 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract irritation
DECACB (PCB-209) (13C12, 99%) (105600-27-9)		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.001 mg/m ³ USA. NIOSH Recommended Exposure Limits. Remarks : Potential Occupational Carcinogen.

8.2. Exposure controls

Personal protective equipment

: Protective clothing. Protective goggles. Gloves. Self-contained breathing apparatus.



Hand protection

: Wear suitable protective clothing and gloves.

Eye protection

: Chemical goggles or face shield. Chemical goggles or safety glasses.

Skin and body protection

: Wear suitable protective clothing.

Respiratory protection

: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.

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 g/mol

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Color	: Colorless
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: -53 °C (- 63 °F) - lit
Boiling point	: 151 °C (304 °F) - lit
Flash point	: 31 °C (87.8 °F) - closed cup
Auto-ignition temperature	: 205 °C (401 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapor
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
Specific gravity / density	: 0.718 g/ml at 25 °C (77 °F)
Solubility	: Water: 0.0002 % at 25 °C (77 °F) - slightly soluble
Log Pow	: 5.65
Log Kow	: No data available
Viscosity, kinematic	: <= 1.008 mm²/s at 20 °C (68 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: 0.87 - 2.9 % (V)

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

Open flame. Direct sunlight.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation: Harmful if inhaled.

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)	
LC50 inhalation rat (mg/l)	23760 mg/m ³ male - 4 h
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
Skin corrosion/irritation, Dermal, rat	Result: Skin Irritation (Draize Test)
Additional information	: S. Typhimurium Result: negative

DECACHLOROBIPHENYL UNLABELED (2051-24-3)	
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/¹³C₁₂, 99%)

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DECACHLOROBIPHENYL UNLABELED (2051-24-3)	
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h

N-NONANE UNLABELED (111-84-2)	
LC50 inhalation rat (mg/l)	23760 mg/m ³ male - 4 h
ATE CLP (vapors)	11.000 mg/l/4h
Skin corrosion/irritation, Dermal, rat	Result: Skin Irritation (Draize Test)
Additional information	: S. Typhimurium Result: negative

ISOOCTANE UNLABELED (540-84-1)	
LD50 oral rat	> 5000 mg/kg (OECD Test Guideline 401)
LD50 dermal rabbit	> 2000 mg/kg (OECD Test Guideline 402)
LC50 inhalation rat (mg/l)	> 33.52 mg/l/4h (OECD Test Guideline 403)

DECACB (PCB-209) (¹³ C ₁₂ , 99%) (105600-27-9)	
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h

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

SECTION 12: Ecological information

12.1. Toxicity

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

4-MONOCB UNLABELED (2051-62-9)	
LC50 fish 1	0.72 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	0.42 mg/l Daphnia magna (Water flea) - 48 h

2,4,4'-TRICB UNLABELED (7012-37-5)	
LC50 fish 1	> 0.16 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	> 0.16 mg/l Daphnia magna (Water flea) - 48 h

2,2',5,5'-TETRACB UNLABELED (35693-99-3)	
LC50 fish 1	> 0.16 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	> 0.16 mg/l Daphnia magna (Water flea) - 48 h
NOEC (chronic)	0.1 mg/l Oncorhynchus mykiss (rainbow trout) - 7 d

4-MONOCB (PCB-3) (¹³ C ₁₂ , 99%) (208263-77-8)	
LC50 fish 1	0.72 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)

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4-MONOCB (PCB-3) (13C12, 99%) (208263-77-8)	
EC50 Daphnia 1	0.42 mg/l Daphnia magna (Water flea) - 48 h
2,4,4'-TRICB (PCB-28) (13C12, 99%) (208263-76-7)	
LC50 fish 1	> 0.16 mg/l Pimephale promelas (fathead minnow) -96h
EC50 Daphnia 1	> 0.16 mg/l Daphnia magna (Water flea) -48h
2,2',5,5'-TETRACB (PCB-52) (13C12, 99%) (208263-80-3)	
LC50 fish 1	>= 0.002 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	>= 0.002 mg/l Daphnia magna (Water flea) - 48 h
NOEC (chronic)	0.1 mg/l Oncorhynchus mykiss (rainbow trout) - 7 d
2,2',3,3',4,4',5-HEPTACB (PCB-170) (13C12, 99%) (35065-30-6 (Unlabeled))	
LC50 fish 1	0.034 mg/l Pimephales promelas (fathead minnow) - 96 h

12.2. Persistence and degradability

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)	
Persistence and degradability	May cause long-term adverse effects in the environment.
2,2',3,4,4',5,5'-HEPTACB UNLABELED (35065-29-3)	
Persistence and degradability	May cause long-term adverse effects in the environment.
DECACHLOROBIPHENYL UNLABELED (2051-24-3)	
Persistence and degradability	May cause long-term adverse effects in the environment.
2,4'-DICB (PCB-8) (13C12, 98%) (34883-43-7 (Unlabeled))	
Persistence and degradability	Not available.
2,2',3,3',4,4'-HEXACB (PCB-128) (13C12, 99%) (38380-07-3 (Unlabeled))	
Persistence and degradability	Not available.
DECACB (PCB-209) (13C12, 99%) (105600-27-9)	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)	
Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.
4-MONOCB UNLABELED (2051-62-9)	
BCF fish 1	>= 0.5 mg/l Oryzias latipes - 20 d
Bioconcentration factor (BCF REACH)	>= 54
2,4'-DICB UNLABELED (34883-43-7)	
Log Pow	5.242
2,3',4,4',5-PENTACB UNLABELED (31508-00-6)	
Log Pow	7.12
2,4'-DICB (PCB-8) (13C12, 98%) (34883-43-7 (Unlabeled))	
Log Pow	5.242
Bioaccumulative potential	Not available.
2,3',4,4',5-PENTACB (PCB-118) (13C12, 98%) (104130-40-7)	
Log Pow	7.12
2,2',4,4',5,5'-HEXACB (PCB-153) (13C12, 99%) (185376-58-3)	
Log Pow	7.75
2,2',3,4,4',5,5'-HEPTACB (PCB-180) (13C12, 99%) (35065-29-3 (Unlabeled))	
Log Pow	8.27
N-NONANE UNLABELED (111-84-2)	
Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.
ISOCTANE UNLABELED (540-84-1)	
Log Pow	4.6
2,2',3,3',4,4',5-HEPTACB (PCB-170) (13C12, 99%) (35065-30-6 (Unlabeled))	
Log Pow	8.27

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%) EC-5414-CS3

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2,2',3,3',4,4'-HEXACB (PCB-128) (13C12, 99%) (38380-07-3 (Unlabeled))	
Bioaccumulative potential	Not available.

12.4. Mobility in soil

2,4'-DICB (PCB-8) (13C12, 98%) (34883-43-7 (Unlabeled))	
Ecology - soil	Not available.

2,2',3,3',4,4'-HEXACB (PCB-128) (13C12, 99%) (38380-07-3 (Unlabeled))	
Ecology - soil	Not available.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

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

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

Ecology - waste materials : Hazardous waste due to toxicity.

SECTION 14: Transport information

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

14.1. UN number

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

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Nonanes
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : III - Minor Danger

DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

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

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : III

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Class (ADR) : 3 - Flammable liquid
 Hazard identification number (Kemler No.) : 30
 Classification code (ADR) : F1
 Hazard labels (ADR) : 3 - Flammable liquids



Orange plates : 30
1920

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

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
 MFAG-No : 128

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 60 L
 (49 CFR 173.27)
 DOT Quantity Limitations Cargo aircraft only (49 : 220 L
 CFR 175.75)
 Civil Aeronautics Law : Flammable liquids

14.4. Environmental hazards

Dangerous for the environment : : No supplementary information available.

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

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
N-NONANE UNLABELED (111-84-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard

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N-NONANE UNLABELED (111-84-2)	
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
ISOCTANE UNLABELED (540-84-1)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Fire hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.

15.2. International regulations

CANADA

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)
Listed on the Canadian DSL (Domestic Substances List)
N-NONANE UNLABELED (111-84-2)
Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)()	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

N-NONANE UNLABELED (111-84-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

ISOCTANE UNLABELED (540-84-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

N-NONANE UNLABELED (111-84-2)
State or local regulations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

ISOCTANE UNLABELED (540-84-1)
State or local regulations
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List

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ISOCTANE UNLABELED (540-84-1)

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

SECTION 16: Other information

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

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

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Repr. 1A	Reproductive toxicity Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 2	Specific target organ toxicity (single exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
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
H360	May damage fertility or the unborn child
H371	May cause damage to organs
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
R11	Highly flammable
R20	Harmful by inhalation
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R22	Harmful if swallowed
R33	Danger of cumulative effects
R36/37/38	Irritating to eyes, respiratory system and skin
R36/38	Irritating to eyes and skin
R38	Irritating to skin
R45	May cause cancer
R48	Danger of serious damage to health by prolonged exposure
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R48/20/21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed
R49	May cause cancer by inhalation
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R60	May impair fertility
R61	May cause harm to the unborn child

MONO-DECA + PREDOMINANT PCB CALIBRATION SOLUTION CS3 (UNLABELED/13C12, 99%)

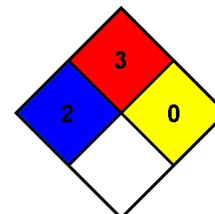
EC-5414-CS3

Safety Data Sheet

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

R65	Harmful: may cause lung damage if swallowed
R67	Vapors may cause drowsiness and dizziness
F	Highly flammable
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

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



Hazard Rating

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

CIL Mixture SDS

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