



CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

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

Date of issue: 16/03/2020

Revision date:

:

Version: 1.0

ES-5442-CS8

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

1.1. Product identifier

Product form : Mixtures
Product name : CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE
Product code : ES-5442-CS8

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. 3 H226
Acute Tox. 4 (Inhalation) H332
Skin Irrit. 2 H315
Eye Irrit. 2 H319
STOT SE 3 H336
Asp. Tox. 1 H304

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

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

Xn; R20
Xn; R65
Xi; R36/38
R10
R67

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
Eye Irrit. 2 H319
STOT SE 3 H336
Asp. Tox. 1 H304

Full text of H statements : see section 16

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labeling 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 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

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.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

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

Precautionary statements (GHS-US)

: P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical/ventilating/lighting equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 - If swallowed: Immediately call a poison center or doctor
P302+P352 - If on skin: Wash with plenty of water
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center or doctor if you feel unwell
P321 - Specific treatment (see supplemental first aid instruction on this label)
P331 - Do NOT induce vomiting.
P332+P313 - If skin irritation occurs: Get medical advice/attention.

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

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	99.8363665	R10 Xn; R20 Xn; R65 Xi; R36/38 R67
TOLUENE UNLABELED	(CAS-No.) 108-88-3 (EC-No.) 203-625-9 (EC Index-No.) 601-021-00-3 (REACH-no) 01-2119471310-51	0.0902725	F; R11 Xi; R38 Xn; R65 Repr.Cat.3; R62 Repr.Cat.3; R63 R67 N; R51/53 Xn; R48/20
ISOOCTANE UNLABELED	(CAS-No.) 540-84-1 (EC-No.) 208-759-1 (EC Index-No.) 601-009-00-8 (REACH-no) 01-2119457965-22	0.0722159	Xi; R38 N; R50/53 R67 F; R11 Xn; R65
4,4'-DDT UNLABELED	(CAS-No.) 50-29-3 (EC-No.) 200-024-3 (EC Index-No.) 602-045-00-7	0.0004177	Carc.Cat.3; R40 T; R25 N; R50/53
4,4'-DDE UNLABELED	(CAS-No.) 72-55-9 (EC-No.) 200-784-6	0.0004177	Xn; R22 Carc.Cat.3; R40 N; R50/53
4,4'-DDE (RING-13C12, 99%)	(CAS-No.) 72-55-9 (Unlabeled) (EC-No.) 200-784-6 (Unlabeled)	0.0000209	Xn; R22 Carc.Cat.3; R40 N; R50/53
2,2',3,3',4,5,5',6,6'-NONACB (PCB-208) (13C12, 99%)	(CAS-No.) 234432-92-9 (EC Index-No.) 602-039-00-4 (Unlabeled)	0.0000139	N; R50/53 R48
METHOXYCHLOR (RING-13C12, 99%)	(CAS-No.) 72-43-5 (Unlabeled) (EC-No.) 200-779-9	0.0000105	Xn; R20/21/22 Carc.Cat.3; R40 Xi; R36/37/38 N; R50/53
CIS-CHLORDANE (13C10, 99%)	(CAS-No.) 475275-01-5 (EC-No.) 225-825-5	0.0000105	T; R24 Xn; R20/22 Xi; R36/37/38 N; R50/53
ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%)	(CAS-No.) 465-73-6 (Unlabeled) (EC-No.) 207-366-2 (Unlabeled) (EC Index-No.) 602-050-00-4 (Unlabeled)	0.0000105	T+; R26/27/28 N; R50/53
PARLAR 26 (13C10, 99%)	(CAS-No.) 142534-71-2 (Unlabeled) (EC-No.) 208-759-1 (Unlabeled) (EC Index-No.) 601-009-00-8 (Unlabeled)	0.0000104	Xi; R36/37/38 Xn; R48/20 Muta.Cat.3; R68 Repr.Cat.3; R62 Repr.Cat.3; R63 N; R50/53

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

Name	Product identifier	%	Classification according to Directive 67/548/EEC
HEXACHLOROBENZENE (13C6, 99%)	(CAS-No.) 93952-14-8 (EC-No.) 204-273-9 (Unlabeled) (EC Index-No.) 602-065-00-6 (Unlabeled)	0.0000104	Xi; R36 N; R50/53 Xn; R48/22
BETA-BHC (13C6, 99%)	(CAS-No.) 319-85-7 (Unlabeled) (EC-No.) 206-271-3 (Unlabeled) (EC Index-No.) 602-042-00-0 (Unlabeled)	0.0000104	Carc.Cat.3; R40 T; R25 N; R51/53 Xn; R21
PARLAR 50 (13C10, 99%)	(CAS-No.) 66860-80-8 (Unlabeled)	0.0000104	Not classified
PARLAR 62 (13C10, 99%)	(CAS-No.) 154159-06-5 (Unlabeled) (EC Index-No.)	0.0000104	Xi; R36/37/38 N; R50/53 Xn; R48/20 Muta.Cat.3; R68 Repr.Cat.3; R62 Repr.Cat.3; R63
DIELDRIN (13C12, 98-99%)	(CAS-No.) 60-57-1 (Unlabeled) (EC-No.) 200-484-5 (EC Index-No.) 602-049-00-9	0.0000104	Carc.Cat.3; R40 T+; R27 T; R25 N; R50/53 R48
OXYCHLORDANE (13C10, 99%)	(CAS-No.) 27304-13-8 (Unlabeled)	0.0000104	Carc.Cat.3; R40 T; R25 N; R50/53
TRANS-NONACHLOR (13C10, 98%)	(CAS-No.) 39765-80-5 (Unlabeled)	0.0000104	Xn; R22 Xi; R36/37/38 N; R50/53
ALDRIN (13C12, 99%)	(CAS-No.) 309-00-2 (Unlabeled) (EC-No.) 206-215-8 (Unlabeled) (EC Index-No.) 602-048-00-3 (Unlabeled)	0.0000104	Carc.Cat.3; R40 T+; R27/28 T; R25 N; R50/53 R48
CIS-HEPTACHLOR EPOXIDE (13C10, 99%)	(CAS-No.) 1024-57-3 (Unlabeled) (EC-No.) 213-831-0 (Unlabeled) (EC Index-No.) 602-063-00-5 (Unlabeled)	0.0000104	Carc.Cat.3; R40 T+; R28 N; R50/53 R48
ENDRIN (13C12, 99%)	(CAS-No.) 72-20-8 (Unlabeled) (EC-No.) 200-775-7 (EC Index-No.) 602-051-00-X	0.0000104	T+; R28 T; R24 N; R50/53
LINDANE (13C6, 99%)	(CAS-No.) 58-89-9 (Unlabeled) (EC-No.) 200-401-2 (EC Index-No.) 602-043-00-6	0.0000104	T; R25 Xn; R20/21 Xn; R48/22 R64 N; R50/53
CIS-NONACHLOR (13C10, 98%)	(CAS-No.) 5103-73-1 (Unlabeled)	0.0000104	N; R50/53
MIREX (13C10, 98%)	(CAS-No.) 2385-85-5 (Unlabeled) (EC-No.) 219-196-6 (Unlabeled) (EC Index-No.) 602-077-00-1 (Unlabeled)	0.0000104	Carc.Cat.3; R40 Repr.Cat.3; R62 Repr.Cat.3; R63 T; R24/25 N; R50/53
2,4'-DDT (RING-13C12, 99%)	(CAS-No.) 789-02-6 (Unlabeled) (EC-No.) 212-332-5 (Unlabeled)	0.0000104	N; R50/53 Xn; R22 Xi; R36/37/38 T; R48/25 Carc.Cat.1; R45
4,4'-DDT (RING-13C12, 99%)	(CAS-No.) 104215-84-1 (EC-No.) 200-024-3 (Unlabeled) (EC Index-No.) 602-045-00-7 (Unlabeled)	0.0000104	Carc.Cat.3; R40 T; R25 N; R50/53
TRANS-CHLORDANE (GAMMA) (13C10, 99%)	(CAS-No.) 5103-74-2 (Unlabeled) (EC-No.) 225-826-0	0.0000104	Carc.Cat.3; R40 Xn; R22 N; R50

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

Name	Product identifier	%	Classification according to Directive 67/548/EEC
PENTACHLOROANISOLE (13C6, 99%)	(CAS-No.) 1825-21-4 (Unlabeled)	0.0000104	Xn; R22 N; R50/53
3,3',4,4'-TETRABDE (BDE-77) (13C12, 99%)	(CAS-No.) 93703-48-1 (Unlabeled)	0.0000104	Carc. Cat. 1; R45 Carc. Cat. 1; R49 Xn; R22 Xi; R41 Xi; R37 Xi; R38 N; R51/53
2,2',3,4,4',6-HEXABDE (BDE-139) (13C12, 99%)	(CAS-No.) 488710-25-4	0.0000104	Carc. Cat. 1; R45 Carc. Cat. 1; R49 Xn; R22 Xi; R41 Xi; R37 Xi; R38 N; R51/53
2,4'-DDE (RING-13C12, 99%)	(CAS-No.) 3424-82-6 (Unlabeled) (EC-No.) 222-318-0	0.0000104	Carc. Cat. 3; R40 Xn; R22 N; R50/53
ALPHA-BHC (13C6, 99%)	(CAS-No.) 319-84-6 (Unlabeled) (EC-No.) 206-270-8 (EC Index-No.) 602-042-00-0	0.0000104	Carc. Cat. 3; R40 T; R25 Xn; R21 N; R50/53
OCTACHLOROSTYRENE (13C8, 99%)	(CAS-No.) 29082-74-4 (Unlabeled)	0.0000104	Xn; R22 N; R50/53
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C6, 99%)	(CAS-No.) 30746-58-8 (Unlabeled)	0.0000035	T+; R26/27/28 Carc. Cat. 1; R45

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	99.8363665	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
TOLUENE UNLABELED	(CAS-No.) 108-88-3 (EC-No.) 203-625-9 (EC Index-No.) 601-021-00-3 (REACH-no) 01-2119471310-51	0.0902725	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 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	0.0722159	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4,4'-DDT UNLABELED	(CAS-No.) 50-29-3 (EC-No.) 200-024-3 (EC Index-No.) 602-045-00-7	0.0004177	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 STOT SE 1, H370 STOT RE 1, H372 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
4,4'-DDE UNLABELED	(CAS-No.) 72-55-9 (EC-No.) 200-784-6	0.0004177	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4,4'-DDE (RING-13C12, 99%)	(CAS-No.) 72-55-9 (Unlabeled) (EC-No.) 200-784-6 (Unlabeled)	0.0000209	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,3',4,5,5',6,6'-NONACB (PCB-208) (13C12, 99%)	(CAS-No.) 234432-92-9 (EC Index-No.) 602-039-00-4 (Unlabeled)	0.0000139	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
METHOXYCHLOR (RING- ¹³ C12, 99%)	(CAS-No.) 72-43-5 (Unlabeled) (EC-No.) 200-779-9	0.0000105	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 2, H351 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
CIS-CHLORDANE (13C10, 99%)	(CAS-No.) 475275-01-5 (EC-No.) 225-825-5	0.0000105	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%)	(CAS-No.) 465-73-6 (Unlabeled) (EC-No.) 207-366-2 (Unlabeled) (EC Index-No.) 602-050-00-4 (Unlabeled)	0.0000105	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 1 (Inhalation:dust,mist), H330 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
PARLAR 26 (13C10, 99%)	(CAS-No.) 142534-71-2 (Unlabeled) (EC-No.) 208-759-1 (Unlabeled) (EC Index-No.) 601-009-00-8 (Unlabeled)	0.0000104	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
HEXACHLOROBENZENE (13C6, 99%)	(CAS-No.) 93952-14-8 (EC-No.) 204-273-9 (Unlabeled) (EC Index-No.) 602-065-00-6 (Unlabeled)	0.0000104	Carc. 1A, H350 STOT RE 1, H372 Aquatic Chronic 1, H410
BETA-BHC (13C6, 99%)	(CAS-No.) 319-85-7 (Unlabeled) (EC-No.) 206-271-3 (Unlabeled) (EC Index-No.) 602-042-00-0 (Unlabeled)	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
PARLAR 50 (13C10, 99%)	(CAS-No.) 66860-80-8 (Unlabeled)	0.0000104	Not classified
PARLAR 62 (13C10, 99%)	(CAS-No.) 154159-06-5 (Unlabeled) (EC Index-No.)	0.0000104	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361 STOT SE 3, H335 STOT SE 2, H371 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
DIELDRIN (13C12, 98-99%)	(CAS-No.) 60-57-1 (Unlabeled) (EC-No.) 200-484-5 (EC Index-No.) 602-049-00-9	0.0000104	Acute Tox. 1 (Oral), H300 Acute Tox. 3 (Dermal), H311 Acute Tox. 1 (Inhalation:dust,mist), H330 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
OXYCHLORDANE (13C10, 99%)	(CAS-No.) 27304-13-8 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302
TRANS-NONACHLOR (13C10, 98%)	(CAS-No.) 39765-80-5 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
ALDRIN (13C12, 99%)	(CAS-No.) 309-00-2 (Unlabeled) (EC-No.) 206-215-8 (Unlabeled) (EC Index-No.) 602-048-00-3 (Unlabeled)	0.0000104	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
CIS-HEPTACHLOR EPOXIDE (13C10, 99%)	(CAS-No.) 1024-57-3 (Unlabeled) (EC-No.) 213-831-0 (Unlabeled) (EC Index-No.) 602-063-00-5 (Unlabeled)	0.0000104	Acute Tox. 2 (Oral), H300 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
ENDRIN (13C12, 99%)	(CAS-No.) 72-20-8 (Unlabeled) (EC-No.) 200-775-7 (EC Index-No.) 602-051-00-X	0.0000104	Acute Tox. 1 (Oral), H300 Acute Tox. 2 (Dermal), H310 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
LINDANE (13C6, 99%)	(CAS-No.) 58-89-9 (Unlabeled) (EC-No.) 200-401-2 (EC Index-No.) 602-043-00-6	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Lact., H362 STOT SE 2, H371 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CIS-NONACHLOR (13C10, 98%)	(CAS-No.) 5103-73-1 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302 Aquatic Chronic 1, H410
MIREX (13C10, 98%)	(CAS-No.) 2385-85-5 (Unlabeled) (EC-No.) 219-196-6 (Unlabeled) (EC Index-No.) 602-077-00-1 (Unlabeled)	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 Repr. 2, H361 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
2,4'-DDT (RING-13C12, 99%)	(CAS-No.) 789-02-6 (Unlabeled) (EC-No.) 212-332-5 (Unlabeled)	0.0000104	Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
4,4'-DDT (RING-13C12, 99%)	(CAS-No.) 104215-84-1 (EC-No.) 200-024-3 (Unlabeled) (EC Index-No.) 602-045-00-7 (Unlabeled)	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 1, H410
TRANS-CHLORDANE (GAMMA) (13C10, 99%)	(CAS-No.) 5103-74-2 (Unlabeled) (EC-No.) 225-826-0	0.0000104	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 (M=10)
PENTACHLOROANISOLE (13C6, 99%)	(CAS-No.) 1825-21-4 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
3,3',4,4'-TETRABDE (BDE-77) (13C12, 99%)	(CAS-No.) 93703-48-1 (Unlabeled)	0.0000104	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1A, H350 STOT SE 3, H336 Aquatic Chronic 2, H411
2,2',3,4,4',6-HEXABDE (BDE-139) (13C12, 99%)	(CAS-No.) 488710-25-4	0.0000104	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1A, H350 STOT SE 3, H336 Aquatic Chronic 2, H411
2,4'-DDE (RING-13C12, 99%)	(CAS-No.) 3424-82-6 (Unlabeled) (EC-No.) 222-318-0	0.0000104	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ALPHA-BHC (13C6, 99%)	(CAS-No.) 319-84-6 (Unlabeled) (EC-No.) 206-270-8 (EC Index-No.) 602-042-00-0	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
OCTACHLOROSTYRENE (13C8, 99%)	(CAS-No.) 29082-74-4 (Unlabeled)	0.0000104	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C6, 99%)	(CAS-No.) 30746-58-8 (Unlabeled)	0.0000035	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 2 (Inhalation:dust,mist), H330 Carc. 1A, H350
Name	Product identifier	%	GHS-US classification
N-NONANE UNLABELED	(CAS-No.) 111-84-2	99.8363665	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

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

Name	Product identifier	%	GHS-US classification
TOLUENE UNLABELED	(CAS-No.) 108-88-3	0.0902725	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401
ISOOCTANE UNLABELED	(CAS-No.) 540-84-1	0.0722159	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4,4'-DDT UNLABELED	(CAS-No.) 50-29-3	0.0004177	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 STOT SE 1, H370 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4,4'-DDE UNLABELED	(CAS-No.) 72-55-9	0.0004177	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4,4'-DDE (RING- ¹³ C12, 99%)	(CAS-No.) 72-55-9 (Unlabeled)	0.0000209	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,2',3,3',4,5,5',6,6'-NONACB (PCB-208) (¹³ C12, 99%)	(CAS-No.) 234432-92-9	0.0000139	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
METHOXYCHLOR (RING- ¹³ C12, 99%)	(CAS-No.) 72-43-5 (Unlabeled)	0.0000105	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CIS-CHLORDANE (13C10, 99%)	(CAS-No.) 475275-01-5	0.0000105	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400
ISODRIN (CHEMICAL PURITY 95%) (¹³ C12, 99%)	(CAS-No.) 465-73-6 (Unlabeled)	0.0000105	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 1 (Inhalation), H330 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
PARLAR 26 (13C10, 99%)	(CAS-No.) 142534-71-2 (Unlabeled)	0.0000104	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
HEXACHLOROBENZENE (13C6, 99%)	(CAS-No.) 93952-14-8	0.0000104	Carc. 1B, H350 STOT RE 1, H372 Aquatic Chronic 1, H410
BETA-BHC (13C6, 99%)	(CAS-No.) 319-85-7 (Unlabeled)	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
PARLAR 50 (13C10, 99%)	(CAS-No.) 66860-80-8 (Unlabeled)	0.0000104	Not classified
PARLAR 62 (13C10, 99%)	(CAS-No.) 154159-06-5 (Unlabeled)	0.0000104	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361 STOT SE 3, H335 STOT SE 2, H371 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
DIELDRIN (13C12, 98-99%)	(CAS-No.) 60-57-1 (Unlabeled)	0.0000104	Acute Tox. 1 (Oral), H300 Acute Tox. 3 (Dermal), H311 Acute Tox. 1 (Inhalation:dust,mist), H330 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

Name	Product identifier	%	GHS-US classification
OXYCHLORDANE (13C10, 99%)	(CAS-No.) 27304-13-8 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302
TRANS-NONACHLOR (13C10, 98%)	(CAS-No.) 39765-80-5 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ALDRIN (13C12, 99%)	(CAS-No.) 309-00-2 (Unlabeled)	0.0000104	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CIS-HEPTACHLOR EPOXIDE (13C10, 99%)	(CAS-No.) 1024-57-3 (Unlabeled)	0.0000104	Acute Tox. 2 (Oral), H300 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 1, H400
ENDRIN (13C12, 99%)	(CAS-No.) 72-20-8 (Unlabeled)	0.0000104	Acute Tox. 1 (Oral), H300 Acute Tox. 2 (Dermal), H310 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
LINDANE (13C6, 99%)	(CAS-No.) 58-89-9 (Unlabeled)	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Lact., H362 STOT SE 2, H371 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CIS-NONACHLOR (13C10, 98%)	(CAS-No.) 5103-73-1 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302 Aquatic Chronic 1, H410
MIREX (13C10, 98%)	(CAS-No.) 2385-85-5 (Unlabeled)	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,4'-DDT (RING-13C12, 99%)	(CAS-No.) 789-02-6 (Unlabeled)	0.0000104	Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4,4'-DDT (RING-13C12, 99%)	(CAS-No.) 104215-84-1	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 1, H410
TRANS-CHLORDANE (GAMMA) (13C10, 99%)	(CAS-No.) 5103-74-2 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400
PENTACHLOROANISOLE (13C6, 99%)	(CAS-No.) 1825-21-4 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
3,3',4,4'-TETRABDE (BDE-77) (13C12, 99%)	(CAS-No.) 93703-48-1 (Unlabeled)	0.0000104	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1A, H350 STOT SE 3, H336 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
2,2',3,4,4',6-HEXABDE (BDE-139) (13C12, 99%)	(CAS-No.) 488710-25-4	0.0000104	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1A, H350 STOT SE 3, H336 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
2,4'-DDE (RING-13C12, 99%)	(CAS-No.) 3424-82-6 (Unlabeled)	0.0000104	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ALPHA-BHC (13C6, 99%)	(CAS-No.) 319-84-6 (Unlabeled)	0.0000104	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

Name	Product identifier	%	GHS-US classification
OCTACHLOROSTYRENE (13C8, 99%)	(CAS-No.) 29082-74-4 (Unlabeled)	0.0000104	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C6, 99%)	(CAS-No.) 30746-58-8 (Unlabeled)	0.0000035	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 1 (Inhalation), H330 Carc. 1A, H350

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	: If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area.
First-aid measures after inhalation	: When symptoms occur: go into open air and ventilate suspected area. If not breathing give artificial respiration. Get medical advice/attention.
First-aid measures after skin contact	: Wash with plenty of soap and water. and soap. Get immediate medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after inhalation	: Harmful if inhaled.
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 : Water spray. Dry powder. Foam. Carbon dioxide. Alcohol resistant foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapor.
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 attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

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

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment	: Dike and contain spill. Dispose as hazardous waste. Comply with local regulations for disposal.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
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.

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Avoid all contact with skin, eyes, or clothing. Keep away from sources of ignition - No smoking. Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer). Take precautionary measures against static discharges.
Precautions for safe handling	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing fume, gas, mist, spray, vapors. Avoid contact with skin and eyes.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

4,4'-DDT UNLABELED (50-29-3)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³ Liver damage. Confirmed animal carcinogen with unknown relevance to humans.
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³ Skin notation
HEXACHLOROBENZENE (13C6, 99%) (93952-14-8)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0.002 mg/m ³ Central Nervous System impairment. Porphyrin effects. Skin damage. Confirmed animal carcinogen with unknown relevance to humans. Danger of cutaneous absorption. USA. ACGIH Threshold Limit Values (TLV)
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	0.002 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107) - Skin
LINDANE (13C6, 99%) (58-89-9 (Unlabeled))		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³
ALDRIN (13C12, 99%) (309-00-2 (Unlabeled))		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0.05 mg/m ³ ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Central Nervous System impairment Liver damage Kidney damage Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.25 mg/m ³ USA. NIOSH Recommended Exposure Limits.
USA NIOSH	Remark (NIOSH)	Potential Occupational Carcinogen See Appendix A Potential for dermal absorption
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.25 mg/m ³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
USA OSHA	OSHA PEL (STEL) (mg/m ³)	0.25 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)
USA OSHA	Remark (OSHA)	Skin designation
DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled))		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0.25 mg/m ³ Liver damage. Central Nervous System convulsion. Danger of cutaneous absorption
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.25 mg/m ³ Skin notation
ENDRIN (13C12, 99%) (72-20-8 (Unlabeled))		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0.1 mg/m ³ Central Nervous System impairment, Headache, Liver damage

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

ENDRIN (13C12, 99%) (72-20-8 (Unlabeled))		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.1 mg/m ³ Danger of cutaneous absorption, not classifiable a a human carcinogen
4,4'-DDT (RING-13C12, 99%) (104215-84-1)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³ Liver damage. Confirmed animal carcinogen with unknown relevance to humans.
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.5 mg/m ³ Potential Occupational Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³ Skin designation
METHOXYCHLOR (RING-13C12, 99%) (72-43-5 (Unlabeled))		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ Central nervous system impairment. Liver damage.
TOLUENE UNLABELED (108-88-3)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Visual impairment. Female reproductive. Pregnancy loss. 2015 Adoption. Substances for which there is a Biological Exposure Index or Indices (see BEI@ section). Not classifiable as a human carcinogen.; Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0300 mg/l Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0200 mg/l Biological specimen: In blood Remarks: Prior to last shift of workweek Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: o-Cresol Value: 0.3000 mg/g Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI)
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	375 mg/m ³ USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (TWA) (ppm)	100 ppm USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	560 mg/m ³ USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (STEL) (ppm)	150 ppm USA. NIOSH Recommended Exposure Limits
USA OSHA	OSHA PEL (TWA) (mg/m ³)	375 mg/m ³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (STEL) (mg/m ³)	560 mg/m ³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (STEL) (ppm)	150 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-2
USA OSHA	Remark (OSHA)	OSHA PEL (TWA) - 200 ppm - USA. Occupational Exposure Limits (OSHA) - Table Z-2. Remarks: Z37.12-1967
ISOOCTANE 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
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

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

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

8.2. Exposure controls

Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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



Materials for protective clothing : Wear suitable protective clothing and gloves.

Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Wear eye protection. Chemical goggles or face shield with safety glasses.

Skin and body protection : Wear suitable protective clothing, gloves and eye/face protection.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Liquid

Color : Colorless

Odor : No data available

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : No data available

Relative vapor density at 20 °C : No data available

Relative density : No data available

Solubility : No data available

Log Pow : No data available

Log Kow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

Explosion limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor. Vapors may form flammable mixture with air.

10.2. Chemical stability

See storage and expiration date on CoA.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation: Harmful if inhaled.

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/ ¹³ C, 99%) IN NONANE	
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
4,4'-DDT UNLABELED (50-29-3)	
LD50 oral rat	87 mg/kg
LD50 dermal rabbit	300 mg/kg
ATE CLP (oral)	87.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
HEXACHLOROBENZENE (13C6, 99%) (93952-14-8)	
LD50 oral rat	10000 mg/kg
LD50 oral	> 3000 mg/kg Guinea pig
LC50 inhalation rat (mg/l)	3600 mg/m ³
ATE CLP (oral)	10000.000 mg/kg body weight
ATE CLP (vapors)	3.600 mg/l/4h
ATE CLP (dust, mist)	3.600 mg/l/4h
Remarks	Behavioral: Somnolence (general depressed activity). Gastrointestinal: Necrotic changes. Blood: Changes in erythrocyte (RBC) count.
Additional information	LD50 Oral - Cat - 800 mg/kg. LD50 Oral - Rabbit - 1,830 mg/kg. LD50 Oral Mouse - 1760 mg/kg. LD50 - Oral - Mammal - 1400 mg/kg
BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled))	
LD50 oral rat	6000 mg/kg
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
LINDANE (13C6, 99%) (58-89-9 (Unlabeled))	
ATE CLP (oral)	100.000 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
ALDRIN (13C12, 99%) (309-00-2 (Unlabeled))	
LD50 oral rat	39 mg/kg
LD50 dermal rat	15 mg/kg Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Olfaction:Other changes. Behavioral:Convulsions or effect on seizure threshold. Behavioral:Excitement.

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

ALDRIN (13C12, 99%) (309-00-2 (Unlabeled))	
ATE CLP (oral)	39.000 mg/kg body weight
ATE CLP (dermal)	15.000 mg/kg body weight
CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled))	
LD50 oral rat	15 mg/kg
ATE CLP (oral)	15.000 mg/kg body weight
Additional information	LD50 Oral Mouse 39 mg/kg. LD50 Oral Rabbit 144 mg/kg
OXYCHLORDANE (13C10, 99%) (27304-13-8 (Unlabeled))	
LD50 oral rat	457 mg/kg
ATE CLP (oral)	457.000 mg/kg body weight
TRANS-NONACHLOR (13C10, 98%) (39765-80-5 (Unlabeled))	
LD50 oral rat	500 mg/kg
ATE CLP (oral)	500.000 mg/kg body weight
4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled))	
LD50 oral rat	880 mg/kg
ATE CLP (oral)	880.000 mg/kg body weight
DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled))	
LD50 dermal rabbit	250 mg/kg
LC50 inhalation rat (mg/l)	13 mg/m ³ 4 h
ATE CLP (oral)	0.500 mg/kg body weight
ATE CLP (dermal)	250.000 mg/kg body weight
ATE CLP (vapors)	0.013 mg/l/4h
ATE CLP (dust, mist)	0.013 mg/l/4h
ENDRIN (13C12, 99%) (72-20-8 (Unlabeled))	
LD50 oral rat	3 mg/kg
LD50 dermal rabbit	60 mg/kg
ATE CLP (oral)	3.000 mg/kg body weight
ATE CLP (dermal)	60.000 mg/kg body weight
ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled))	
LD50 oral rat	7 mg/kg
LD50 dermal rat	23 mg/kg
ATE CLP (oral)	0.500 mg/kg body weight
ATE CLP (dermal)	5.000 mg/kg body weight
ATE CLP (dust, mist)	0.005 mg/l/4h
2,4'-DDT (RING-13C12, 99%) (789-02-6 (Unlabeled))	
ATE CLP (oral)	100.000 mg/kg body weight
4,4'-DDT (RING-13C12, 99%) (104215-84-1)	
LD50 oral rat	87 mg/kg
LD50 dermal rabbit	300 mg/kg Remarks: Behavioral:Tremor. Behavioral:Muscle weakness. Behavioral:Ataxia.
ATE CLP (oral)	87.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
MIREX (13C10, 98%) (2385-85-5 (Unlabeled))	
LD50 oral rat	235 mg/kg
LD50 dermal rabbit	800 mg/kg
ATE CLP (oral)	235.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
ALPHA-BHC (13C6, 99%) (319-84-6 (Unlabeled))	
LD50 oral rat	177 mg/kg
ATE CLP (oral)	177.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
CIS-CHLORDANE (13C10, 99%) (475275-01-5)	
LD50 oral rat	500 mg/kg
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

TRANS-CHLORDANE (GAMMA) (13C10, 99%) (5103-74-2 (Unlabeled))	
LD50 oral rat	1100 mg/kg
ATE CLP (oral)	1100.000 mg/kg body weight
2,4'-DDE (RING-13C12, 99%) (3424-82-6 (Unlabeled))	
LD50 oral rat	880 mg/kg
ATE CLP (oral)	880.000 mg/kg body weight
CIS-NONACHLOR (13C10, 98%) (5103-73-1 (Unlabeled))	
ATE CLP (oral)	500.000 mg/kg body weight
METHOXYCHLOR (RING-13C12, 99%) (72-43-5 (Unlabeled))	
LD50 oral rat	1855 mg/kg
ATE CLP (oral)	1855.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (dust, mist)	1.500 mg/l/4h
PENTACHLOROANISOLE (13C6, 99%) (1825-21-4 (Unlabeled))	
ATE CLP (oral)	500.000 mg/kg body weight
OCTACHLOROSTYRENE (13C8, 99%) (29082-74-4 (Unlabeled))	
LD50 oral rat	3710 mg/kg
ATE CLP (oral)	3710.000 mg/kg body weight
TOLUENE UNLABELED (108-88-3)	
LD50 oral rat	> 5580 mg/kg
LD50 dermal rabbit	12196 mg/kg
LC50 inhalation rat (mg/l)	12,500 - 28,800 mg/m ³ - 4 h
ATE CLP (dermal)	12196.000 mg/kg body weight
ATE CLP (vapors)	12.500 mg/l/4h
ATE CLP (dust, mist)	12.500 mg/l/4h
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)
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
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C6, 99%) (30746-58-8 (Unlabeled))	
ATE CLP (oral)	5.000 mg/kg body weight
ATE CLP (dermal)	5.000 mg/kg body weight
ATE CLP (dust, mist)	0.050 mg/l/4h
4,4'-DDE UNLABELED (72-55-9)	
LD50 oral rat	880 mg/kg
ATE CLP (oral)	880.000 mg/kg body weight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
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.

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

Symptoms/effects after inhalation	: Harmful if inhaled.
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.

4,4'-DDT UNLABELED (50-29-3)	
LC50 fish 1	0.01 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	0.00108 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	> 20 mg/l Scenedesmus quadricauda (Green Algae) - 7 d
ErC50 (other aquatic plants)	113 mg/l Oncorhynchus mykiss (rainbow trout) - 3 d
NOEC (chronic)	113 mg/l Oncorhynchus mykiss (rainbow trout) - 3 d
HEXACHLOROBENZENE (13C6, 99%) (93952-14-8)	
LC50 fish 1	7.6 mg/l Lepomis macrochirus (Bluegill) - 96 h
EC50 other aquatic organisms 1	> 0.005 mg/l Daphnia magna (Water flea) - 48 h
NOEC (chronic)	> 0.0048 mg/l Pimephales promelas (fathead minnow) - 96 h
BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled))	
LC50 fish 1	1.6 mg/l Poecilia reticulata (guppy) - 96 h
LINDANE (13C6, 99%) (58-89-9 (Unlabeled))	
LC50 fish 1	0.2 mg/l Cyprinus carpio (Carp) - 96 h
EC50 Daphnia 1	0.8 - 6.5 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	4 mg/l 72 h
NOEC chronic fish	0.056 mg/l Oncorhynchus mykiss (rainbow trout) - 3 d
ALDRIN (13C12, 99%) (309-00-2 (Unlabeled))	
LC50 fish 1	0.01 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	0.03 mg/l Daphnia magna (Water flea) - 48 h
CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled))	
LC50 fish 1	0.02 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	0.24 mg/l Daphnia magna (Water flea) - 48 h
TRANS-NONACHLOR (13C10, 98%) (39765-80-5 (Unlabeled))	
EC50 Daphnia 1	0.022 mg/l Daphnia pulex (Water flea) - 48 h
4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled))	
LC50 fish 1	0.2 - 0.3 mg/l Lepomis macrochirus (Bluegill) - 96 h
LC50 other aquatic organisms 1	0.05 - 0.18 mg/l Salmo salar (Atlantic salmon) - 96 h
LC50 fish 2	0.03 - 0.04 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled))	
LC50 fish 1	1.6 mg/l Carassius auratus (goldfish) - 96 h
EC50 Daphnia 1	79.5 mg/l Daphnia magna (Water flea) - 48 h
ENDRIN (13C12, 99%) (72-20-8 (Unlabeled))	
LC50 fish 1	< 0.001 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	>= 0.02 mg/l Daphnia pulex (Water flea) - 48 h
ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled))	
LC50 fish 1	0.012 mg/l Lepomis macrochirus - 24 h
2,4'-DDT (RING-13C12, 99%) (789-02-6 (Unlabeled))	
LC50 fish 1	0.03 mg/l Other fish - 24 h
4,4'-DDT (RING-13C12, 99%) (104215-84-1)	
LC50 fish 1	0.01 mg/l Pimephales promelas (fathead minnow) - 96 h
LC50 other aquatic organisms 1	0.01 mg/l Lepomis macrochirus (Bluegill) - 96.0 h
EC50 Daphnia 1	0.00108 mg/l Daphnia magna (Water flea) - 48 h
LC50 fish 2	0.0034 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
ErC50 (other aquatic plants)	> 20 mg/l Scenedesmus quadricauda (Green algae) - 7 d

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

4,4'-DDT (RING-¹³C12, 99%) (104215-84-1)	
LOEC (chronic)	150 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
NOEC (chronic)	113 mg/l Oncorhynchus mykiss (rainbow trout) - 3 d
MIREX (13C10, 98%) (2385-85-5 (Unlabeled))	
LC50 fish 1	0.023 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	2.6 mg/l Daphnia magna (Water flea) - 48 h
ALPHA-BHC (13C6, 99%) (319-84-6 (Unlabeled))	
LC50 fish 1	0.12 mg/l Carassius auratus (Goldfish) - 48 h
EC50 Daphnia 1	0.2 - 1.7 mg/l Daphnia magna (Water flea) - 48 h
CIS-CHLORDANE (13C10, 99%) (475275-01-5)	
LC50 fish 1	0.0074 mg/l - Lepomis macrochirus (Bluegill) - 96 h
TRANS-CHLORDANE (GAMMA) (13C10, 99%) (5103-74-2 (Unlabeled))	
LC50 fish 1	0.05 mg/l Lepomis macrochirus - 96 h
METHOXYCHLOR (RING-¹³C12, 99%) (72-43-5 (Unlabeled))	
LC50 fish 1	0.03 mg/l Oncorhynchus mykiss (Rainbow trout) - 96 h
EC50 Daphnia 1	0.016 mg/l Daphnia magna (Water flea) - 48 h
PENTACHLOROANISOLE (13C6, 99%) (1825-21-4 (Unlabeled))	
LC50 fish 1	0.65 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	0.027 mg/l Daphnia magna (Water flea) - 48 h
TOLUENE UNLABELED (108-88-3)	
EC50 Daphnia 1	8 mg/l Daphnia magna (Water flea) - 24h
LC50 fish 2	7.63 mg/l Oncorhynchus mykiss (Rainbow trout) - 96 h
EC50 Daphnia 2	6 mg/l Daphnia magna (Water flea) - Immobilization - 48 h
ErC50 (algae)	245 mg/l Chlorella vulgaris (Fresh water algae) - 24 h
ErC50 (other aquatic plants)	10 mg/l Pseudokirchneriella subcapitata (Green algae) - 24 h
NOEC (chronic)	5.44 mg/l Pimephales promelas (fathead minnow) - 7 d
4,4'-DDE UNLABELED (72-55-9)	
LC50 fish 1	0.2 - 0.3 mg/l Lepomis macrochirus (Bluegill) - 96 h
LC50 other aquatic organisms 1	0.05 - 0.18 mg/l Salmo salar (Atlantic salmon) - 96 h
LC50 fish 2	0.03 - 0.04 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h

12.2. Persistence and degradability

LINDANE (13C6, 99%) (58-89-9 (Unlabeled))	
Persistence and degradability	May cause long-term adverse effects in the environment.
2,4'-DDT (RING-¹³C12, 99%) (789-02-6 (Unlabeled))	
Persistence and degradability	May cause long-term adverse effects in the environment.
2,4'-DDE (RING-¹³C12, 99%) (3424-82-6 (Unlabeled))	
Persistence and degradability	May cause long-term adverse effects in the environment.
TOLUENE UNLABELED (108-88-3)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

4,4'-DDT UNLABELED (50-29-3)	
BCF fish 1	Oncorhynchus mykiss (rainbow trout) - 20 d
Bioconcentration factor (BCF REACH)	46670
Log Pow	6.91
PARLAR 26 (13C10, 99%) (142534-71-2 (Unlabeled))	
Log Pow	4.6
HEXACHLOROBENZENE (13C6, 99%) (93952-14-8)	
Bioconcentration factor (BCF REACH)	22000
Bioaccumulative potential	Bioaccumulation Pimephale promelas (fathead minnow) - 32 d - 0.0003 mg/l.
BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled))	
BCF fish 1	Cyprinus carpio (Carp) - 35 d - 0.05 mg/l
Log Pow	3.78

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

LINDANE (13C6, 99%) (58-89-9 (Unlabeled))	
BCF fish 1	0.0091 mg/l Bioaccumulation Pimephales promels (fathead minnow) - 304 d
Bioconcentration factor (BCF REACH)	674
Log Pow	3.5 at 22 °C (72 °F)
ALDRIN (13C12, 99%) (309-00-2 (Unlabeled))	
Bioconcentration factor (BCF REACH)	3700
Log Pow	6.5
Bioaccumulative potential	Bioaccumulation: Leuciscus idus (Golden orfe) - 3 d.
CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled))	
Bioconcentration factor (BCF REACH)	14400
Log Pow	5.4
Bioaccumulative potential	Bioaccumulative potential: Pimephales promelas (fathead minnow)- 32d.
TRANS-NONACHLOR (13C10, 98%) (39765-80-5 (Unlabeled))	
Log Pow	6.35
4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled))	
BCF fish 1	3.84 ug/l - Gambusia affinis (Mosquito fish) - 33 d
Bioconcentration factor (BCF REACH)	12.037
Log Pow	6.51
ENDRIN (13C12, 99%) (72-20-8 (Unlabeled))	
Log Pow	5.2
ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled))	
Bioaccumulative potential	Bioaccumulation Leuciscus idus (Golden orfe); Bioconcentration factor (BCF): 3,890.
4,4'-DDT (RING-13C12, 99%) (104215-84-1)	
BCF fish 1	0.001 mg/l Oncorhynchus mykiss (rainbow trout) - 20 d
Bioconcentration factor (BCF REACH)	46,670
Log Pow	6.91
MIREX (13C10, 98%) (2385-85-5 (Unlabeled))	
BCF fish 1	0.0012 mg/l Pimephales promelas (rainbow trout) - 32 d
Bioconcentration factor (BCF REACH)	18100
Log Pow	5.28
ALPHA-BHC (13C6, 99%) (319-84-6 (Unlabeled))	
Log Pow	3.8
2,4'-DDE (RING-13C12, 99%) (3424-82-6 (Unlabeled))	
Log Pow	5.58
CIS-NONACHLOR (13C10, 98%) (5103-73-1 (Unlabeled))	
Log Pow	2.794
OCTACHLOROSTYRENE (13C8, 99%) (29082-74-4 (Unlabeled))	
Log Pow	6.29
TOLUENE UNLABELED (108-88-3)	
BCF fish 1	0.05 mg/l Leuciscus idus (Golden orfe) - 3 d
Bioconcentration factor (BCF REACH)	90
ISOCTANE UNLABELED (540-84-1)	
Log Pow	4.6
N-NONANE UNLABELED (111-84-2)	
Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.
4,4'-DDE UNLABELED (72-55-9)	
BCF fish 1	3.84 ug/l - Gambusia affinis (Mosquito fish) - 33 d
Bioconcentration factor (BCF REACH)	12.037
Log Pow	6.51

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

TOLUENE UNLABELED (108-88-3)

PBT: not relevant – no registration required

12.6. Other adverse effects

No additional information available

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 : 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 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



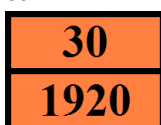
- Packing group (DOT) : III - Minor Danger
- DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 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

- Emergency Response Guide (ERG) Number : 128
- Other information : No supplementary information available.

Overland transport

- Hazard identification number (Kemler No.) : 30
- Orange plates :



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

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

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

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

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
--	--

SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
---------------------------------------	--

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

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
-------------------------------------	--

SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
---------------------------------------	---

PARLAR 26 (13C10, 99%) (142534-71-2 (Unlabeled))

SARA Section 302 Threshold Planning Quantity (TPQ)	Listed on the United States SARA Section 302
--	--

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
-------------------------------------	--

SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313
---------------------------------------	---

PARLAR 50 (13C10, 99%) (66860-80-8 (Unlabeled))

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
--	--

SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
---------------------------------------	--

PARLAR 62 (13C10, 99%) (154159-06-5 (Unlabeled))

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
--	--

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
-------------------------------------	--

SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
---------------------------------------	--

HEXACHLOROBENZENE (13C6, 99%) (93952-14-8)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
--	---

SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
-------------------------------------	---------------------------------

SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
---------------------------------------	---

BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled))

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
--	---

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
-------------------------------------	--

SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
---------------------------------------	---

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

LINDANE (13C6, 99%) (58-89-9 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Listed on the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313
ALDRIN (13C12, 99%) (309-00-2 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Subject to reporting requirements of United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313
CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
OXYCHLORDANE (13C10, 99%) (27304-13-8 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
TRANS-NONACHLOR (13C10, 98%) (39765-80-5 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
ENDRIN (13C12, 99%) (72-20-8 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Listed on the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Listed on the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313
2,4'-DDT (RING-13C12, 99%) (789-02-6 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
4,4'-DDT (RING-13C12, 99%) (104215-84-1)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

4,4'-DDT (RING-13C12, 99%) (104215-84-1)	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
MIREX (13C10, 98%) (2385-85-5 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
ALPHA-BHC (13C6, 99%) (319-84-6 (Unlabeled))	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
CIS-CHLORDANE (13C10, 99%) (475275-01-5)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
TRANS-CHLORDANE (GAMMA) (13C10, 99%) (5103-74-2 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
2,4'-DDE (RING-13C12, 99%) (3424-82-6 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
CIS-NONACHLOR (13C10, 98%) (5103-73-1 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
METHOXYCHLOR (RING-13C12, 99%) (72-43-5 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
PENTACHLOROANISOLE (13C6, 99%) (1825-21-4 (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
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
OCTACHLOROSTYRENE (13C8, 99%) (29082-74-4 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
2,2',3,3',4,5,5',6,6'-NONACB (PCB-208) (13C12, 99%) (234432-92-9)	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

3,3',4,4'-TETRABDE (BDE-77) (13C12, 99%) (93703-48-1 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
2,2',3,4,4',6-HEXABDE (BDE-139) (13C12, 99%) (488710-25-4)	
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
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
TOLUENE UNLABELED (108-88-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
CERCLA RQ	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of 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.
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
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C6, 99%) (30746-58-8 (Unlabeled))	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
4,4'-DDE UNLABELED (72-55-9)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
15.2. International regulations	
CANADA	
CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE	
Listed on the Canadian DSL (Domestic Substances List)	
TOLUENE UNLABELED (108-88-3)	
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	
2,2',3,3',4,5,5',6,6'-NONACB (PCB-208) (13C12, 99%) (234432-92-9)	
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)	

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

15.3. US State regulations

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE()	
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. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

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

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	Yes	Yes	

PARLAR 26 (13C10, 99%) (142534-71-2 (Unlabeled))

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

PARLAR 50 (13C10, 99%) (66860-80-8 (Unlabeled))

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

PARLAR 62 (13C10, 99%) (154159-06-5 (Unlabeled))

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

HEXACHLOROBENZENE (13C6, 99%) (93952-14-8)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	Yes	Yes	

BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled))

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

LINDANE (13C6, 99%) (58-89-9 (Unlabeled))

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	Yes	Yes	

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

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

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

ALDRIN (13C12, 99%) (309-00-2 (Unlabeled))				
Yes	No	No	No	
CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	
OXYCHLORDANE (13C10, 99%) (27304-13-8 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
TRANS-NONACHLOR (13C10, 98%) (39765-80-5 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	Yes	Yes	
DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	
ENDRIN (13C12, 99%) (72-20-8 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	Yes	Yes	
ISODRIN (CHEMICAL PURITY 95%) (13C12, 99%) (465-73-6 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
2,4'-DDT (RING-13C12, 99%) (789-02-6 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	Yes	Yes	
4,4'-DDT (RING-13C12, 99%) (104215-84-1)				
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)
Yes	Yes	Yes	Yes	

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

MIREX (13C10, 98%) (2385-85-5 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	
ALPHA-BHC (13C6, 99%) (319-84-6 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	
CIS-CHLORDANE (13C10, 99%) (475275-01-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
TRANS-CHLORDANE (GAMMA) (13C10, 99%) (5103-74-2 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
2,4'-DDE (RING-13C12, 99%) (3424-82-6 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
CIS-NONACHLOR (13C10, 98%) (5103-73-1 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
METHOXYCHLOR (RING-13C12, 99%) (72-43-5 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
PENTACHLOROANISOLE (13C6, 99%) (1825-21-4 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
OCTACHLOROSTYRENE (13C8, 99%) (29082-74-4 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
2,2',3,3',4,5,5',6,6'-NONACB (PCB-208) (13C12, 99%) (234432-92-9)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

2,2',3,3',4,5,5',6,6'-NONACB (PCB-208) (13C12, 99%) (234432-92-9)				
		Female	Male	
Yes	Yes	Yes	Yes	
3,3',4,4'-TETRABDE (BDE-77) (13C12, 99%) (93703-48-1 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
2,2',3,4,4',6-HEXABDE (BDE-139) (13C12, 99%) (488710-25-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
TOLUENE UNLABELED (108-88-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	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)				
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	
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C6, 99%) (30746-58-8 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	
4,4'-DDE UNLABELED (72-55-9)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	Yes	Yes	
4,4'-DDT UNLABELED (50-29-3)				
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				
PARLAR 26 (13C10, 99%) (142534-71-2 (Unlabeled))				
State or local regulations				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List				

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

PARLAR 50 (13C10, 99%) (66860-80-8 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
PARLAR 62 (13C10, 99%) (154159-06-5 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
HEXACHLOROBENZENE (13C6, 99%) (93952-14-8)
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
BETA-BHC (13C6, 99%) (319-85-7 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
LINDANE (13C6, 99%) (58-89-9 (Unlabeled))
State or local regulations
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
ALDRIN (13C12, 99%) (309-00-2 (Unlabeled))
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
CIS-HEPTACHLOR EPOXIDE (13C10, 99%) (1024-57-3 (Unlabeled))
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
OXYCHLORDANE (13C10, 99%) (27304-13-8 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
TRANS-NONACHLOR (13C10, 98%) (39765-80-5 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
DIELDRIN (13C12, 98-99%) (60-57-1 (Unlabeled))
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
ENDRIN (13C12, 99%) (72-20-8 (Unlabeled))
State or local regulations
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

ENDRIN (¹³C12, 99%) (72-20-8 (Unlabeled))
U.S. - New Jersey - Right to Know Hazardous Substance List
ISODRIN (CHEMICAL PURITY 95%) (¹³C12, 99%) (465-73-6 (Unlabeled))
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
2,4'-DDT (RING-¹³C12, 99%) (789-02-6 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
4,4'-DDT (RING-¹³C12, 99%) (104215-84-1)
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
MIREX (¹³C10, 98%) (2385-85-5 (Unlabeled))
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
ALPHA-BHC (¹³C6, 99%) (319-84-6 (Unlabeled))
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
CIS-CHLORDANE (¹³C10, 99%) (475275-01-5)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
TRANS-CHLORDANE (GAMMA) (¹³C10, 99%) (5103-74-2 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
2,4'-DDE (RING-¹³C12, 99%) (3424-82-6 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
CIS-NONACHLOR (¹³C10, 98%) (5103-73-1 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
METHOXYCHLOR (RING-¹³C12, 99%) (72-43-5 (Unlabeled))
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
PENTACHLOROANISOLE (¹³C6, 99%) (1825-21-4 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

OCTACHLOROSTYRENE (13C8, 99%) (29082-74-4 (Unlabeled))
State or local regulations
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
2,2',3,3',4,5,5',6,6'-NONACB (PCB-208) (13C12, 99%) (234432-92-9)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Excluded Volatile Organic Compounds
3,3',4,4'-TETRABDE (BDE-77) (13C12, 99%) (93703-48-1 (Unlabeled))
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
2,2',3,4,4',6-HEXABDE (BDE-139) (13C12, 99%) (488710-25-4)
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
TOLUENE UNLABELED (108-88-3)
State or local regulations
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List
ISOCTANE UNLABELED (540-84-1)
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
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
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C6, 99%) (30746-58-8 (Unlabeled))
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
4,4'-DDE UNLABELED (72-55-9)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List 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. 1 (Dermal)	Acute toxicity (dermal) Category 1
Acute Tox. 1 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 1

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/¹³C, 99%) IN NONANE

ES-5442-CS8

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

Acute Tox. 1 (Oral)	Acute toxicity (oral) Category 1
Acute Tox. 2 (Dermal)	Acute toxicity (dermal) Category 2
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) 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
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Lact.	Reproductive toxicity (Lact.)
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 2	Specific target organ toxicity (single exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H300	Fatal if swallowed
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H310	Fatal in contact with skin
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H350	May cause cancer
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H362	May cause harm to breast-fed children
H370	Causes damage to organs
H371	May cause damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
R10	Flammable
R11	Highly flammable
R20	Harmful by inhalation
R20/21	Harmful by inhalation and in contact with skin

CDC POPS (W/ PARLARS) CALIBRATION SOLUTION CS8 (UNLABELED/13C, 99%) IN NONANE

ES-5442-CS8

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

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R20/22	Harmful by inhalation and if swallowed
R21	Harmful in contact with skin
R22	Harmful if swallowed
R24	Toxic in contact with skin
R24/25	Toxic in contact with skin and if swallowed
R25	Toxic if swallowed
R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed
R27	Very toxic in contact with skin
R27/28	Very toxic in contact with skin and if swallowed
R28	Very toxic if swallowed
R36	Irritating to eyes
R36/37/38	Irritating to eyes, respiratory system and skin
R36/38	Irritating to eyes and skin
R37	Irritating to respiratory system
R38	Irritating to skin
R40	Limited evidence of a carcinogenic effect
R41	Risk of serious damage to eyes
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
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed
R48/25	Toxic: danger of serious damage to health by prolonged exposure if swallowed
R49	May cause cancer by inhalation
R50	Very toxic to aquatic organisms
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
R62	Possible risk of impaired fertility
R63	Possible risk of harm to the unborn child
R64	May cause harm to breastfed babies
R65	Harmful: may cause lung damage if swallowed
R67	Vapors may cause drowsiness and dizziness
R68	Possible risk of irreversible effects
F	Highly flammable
N	Dangerous for the environment
T	Toxic
T+	Very toxic
Xi	Irritant
Xn	Harmful

NFPA health hazard

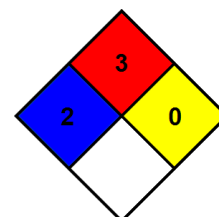
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

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 Multi-Solvent 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