

Safety Data Sheet

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

Date of issue: 05/12/2016

Revision date:

Version: 1.0

EDF-5554-CS7

SECTION 1: Identification of the	substance/mixture and of the company/undertaking
1.1. Product identifier	
Product form	: Mixture
Product name	: DIOXIN & FURAN FOOD/FEED/QQQ CAL. STANDARD (CS7) (UNLABELED/13C12, 99%) IN NONANE
Product code	: EDF-5554-CS7
1.2. Relevant identified uses of the s	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 sa	fety data sheet
Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andover, MA 01810 USA	
USA: 1-800-322-1174 Int: 1-978-749-800 <u>cilsales@isotope.com</u> www.isotope.com	0
Emergency telephone number	
Emergency numbers:	
Chemtrec: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours)	
SECTION 2: Hazards identification	on
2.1. Classification of the substance	or mixture
Classification according to Regulation (E	C) 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 H-statements: see section 16	
Classification according to Directive 67/5	648/EEC [DSD] or 1999/45/EC [DPD]
F; R11 Xn; R65 Xi; R38 R67	

Full text of R-phrases: see section 16

GHS-US classification

 Flam. Liq. 3
 H226

 Acute Tox. 4 (Inhalation:vapour)
 H332

 Skin Irrit. 2
 H315

 Eye Irrit. 2A
 H319

 STOT SE 3
 H336

 Asp. Tox. 1
 H304

Safety Data Sheet

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

Adverse physicochemical, human health and environmental effects

Central Nervous System.

Labelling according to Regulation (EC) N	lo. 1272/2008 [CLP]
Hazard pictograms (CLP)	
	GHS02 GHS08 GHS07
Signal word (CLP)	: Danger
Hazard statements (CLP)	 H226 - Flammable liquid and vapour H304 - May be fatal if swallowed and enters airways H315 - Causes skin irritation H319 - Causes serious eye irritation H332 - Harmful if inhaled H336 - May cause drowsiness or dizziness
Precautionary statements (CLP)	 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment P241 - Use explosion-proof electrical, lighting, ventilating equipment P261 - Avoid breathing fume, mist, spray, vapours P264 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear eye protection, face protection, protective clothing, protective gloves
GHS-US labelling	
Hazard pictograms (GHS-US)	
Signal word (GHS-US)	GHS02 GHS08 GHS07
Hazard statements (GHS-US)	 Danger H226 - Flammable liquid and vapour H304 - May be fatal if swallowed and enters airways H315 - Causes skin irritation H319 - Causes serious eye irritation H332 - Harmful if inhaled H336 - May cause drowsiness or dizziness
Precautionary statements (GHS-US)	 P210 - Keep away from heat, hot surfaces, open flames, sparks No smoking P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment P241 - Use explosion-proof electrical, lighting, ventilating equipment P242 - Use only non-sparking tools P243 - Take precautionary measures against static discharge P261 - Avoid breathing fume, mist, spray, vapours P264 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear eye protection, face protection, protective clothing, protective gloves P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician P302+P352 - IF ON SKIN: Wash with plenty of soap and water P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing P312 - Call a POISON CENTER or doctor/physician if you feel unwell P321 - Specific treatment (see Hazard pictograms (CLP) on this label) P331 - Do NOT induce vomiting P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If skin irritation persists: Get medical advice/attention

Safety Data Sheet

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

P362 - Take off contaminated clothing and wash before reuse

P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide., Dry chemical, Water spray for extinction

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

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

P405 - Store locked up

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

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture	Desident Islandfilm	0/	
Name	Product identifier	%	Classification according to Directive 67/548/EEC
N-NONANE UNLABELED	(CAS No) 111-84-2 (EC no) 203-913-4	99.8804777	R10 Xn; R20 Xn; R65 R67 Xi; R38
TOLUENE UNLABELED	(CAS No) 108-88-3 (EC no) 203-625-9 (EC index no) 601-021-00-3 (REACH-no) 01-2119471310-51	0.1192215	F; R11 Xi; R38 Xn; R65 Repr.Cat.3; R62 Repr.Cat.3; R63 R67 N; R51/53 Xn; R48/20
OCTACHLORODIBENZOFURAN UNLABELED	(CAS No) 39001-02-0	0.0000348	Xn; R22 Xi; R36 R53
OCTACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 3268-87-9	0.0000348	T+; R28 Xi; R36 Carc.Cat.3; R40
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 39227-28-6	0.0000139	Xn; R22 Xn; R65 R53
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 57652-85-7	0.0000139	Xn; R22 Xn; R65 R53
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UNLABELED	(CAS No) 70648-26-9	0.0000139	Xn; R22 Xi; R36 R53
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED	(CAS No) 67562-39-4	0.0000139	Xn; R22 Xi; R36 R53
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED	(CAS No) 57117-44-9	0.0000139	Xn; R22 Xi; R36 R53
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UNLABELED	(CAS No) 72918-21-9	0.0000139	Xn; R22 Xi; R36 R53
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED	(CAS No) 60851-34-5	0.0000139	Xn; R22 Xi; R36 R53
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 19408-74-3	0.0000139	Xn; R20/21/22 Carc.Cat.1; R45
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 35822-46-9	0.0000139	Xn; R22 Xn; R65 R53

Safety Data Sheet

Name	Product identifier	%	Classification according to Directive 67/548/EEC
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED	(CAS No) 55673-89-7	0.0000139	Xn; R22 Xi; R36 R53
2,3,7,8-TETRACHLORODIBENZOFURAN UNLABELED	(CAS No) 51207-31-9	0.000007	Xn; R22 Xi; R36 R53
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 40321-76-4	0.000007	Xn; R22 Xn; R65 R53
1,2,3,7,8-PENTACHLORODIBENZOFURAN UNLABELED	(CAS No) 57117-41-6	0.000007	Xn; R22 Xi; R36 R53
2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED	(CAS No) 57117-31-4	0.000007	Xn; R22 Xi; R36 R53
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 1746-01-6	0.000007	Xn; R22 Xn; R65 R53
OCTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 39001-02-0 (Unlabeled)	0.000007	Xn; R22 Xi; R36 R53
OCTACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 3268-87-9 (Unlabeled)	0.000007	Xn; R22 Xn; R65 R53
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 39227-28-6 (Unlabeled)	0.0000028	Xn; R22 Xn; R65 R53
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 19408-74-3 (Unlabeled)	0.0000028	Xn; R22 Xn; R65 R53
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 70648-26-9 (Unlabeled)	0.0000028	Xn; R22 Xi; R36 R53
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 72918-21-9 (Unlabeled)	0.0000028	Xn; R22 Xi; R36 R53
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 60851-34-5 (Unlabeled)	0.0000028	Xn; R22 Xi; R36 R53
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 67562-39-4 (Unlabeled)	0.0000028	Xn; R22 Xi; R36 R53
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 57117-44-9 (Unlabeled)	0.0000028	Xn; R22 Xi; R36 R53
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 57652-85-7 (Unlabeled)	0.0000028	Xn; R22 Xn; R65 R53
1,2,3,4,6,8,9-HEPTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 69698-58-4 (Unlabeled)	0.0000028	Xn; R22 Xi; R36 R53
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 55673-89-7 (Unlabeled)	0.0000028	Xn; R22 Xi; R36 R53
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 35822-46-9 (Unlabeled)	0.0000028	Xn; R22 Xn; R65 R53

Safety Data Sheet

Name	Product identifier	%	Classification according to Directive 67/548/EEC
1,2,3,4,6,7-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) NA	0.0000028	Xn; R22 Xn; R65 R53
1,2,3,7,8-PENTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 57117-46-6 (Unlabeled)	0.0000014	Xn; R22 Xi; R36 R53
2,3,4,7,8-PENTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 57117-31-4 (Unlabeled)	0.0000014	Xn; R22 Xi; R36 R53
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 40321-76-4 (Unlabeled)	0.0000014	Xn; R22 Xn; R65 R53
2,3,7,8-TETRACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 51207-31-9 (Unlabeled)	0.0000014	Xn; R22 Xi; R36 R53
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 50585-41-6 (Unlabeled)	0.0000014	Xn; R22 Xn; R65 R53
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 116865-58-8	0.0000014	Muta.Cat.3; R68 T+; R27 Xn; R65 R53
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C6, 99%)	(CAS No) 30746-58-8 (Unlabeled)	0.0000014	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	99.8804777	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	0.1192215	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
OCTACHLORODIBENZOFURAN UNLABELED	(CAS No) 39001-02-0	0.0000348	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
OCTACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 3268-87-9	0.0000348	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 39227-28-6	0.0000139	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 57652-85-7	0.0000139	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UNLABELED	(CAS No) 70648-26-9	0.0000139	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN UNLABELED	(CAS No) 67562-39-4	0.0000139	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED	(CAS No) 57117-44-9	0.0000139	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UNLABELED	(CAS No) 72918-21-9	0.0000139	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UNLABELED	(CAS No) 60851-34-5	0.0000139	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413

Safety Data Sheet

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 19408-74-3	0.0000139	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 1A, H350
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 35822-46-9	0.0000139	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN UNLABELED	(CAS No) 55673-89-7	0.0000139	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
2,3,7,8-TETRACHLORODIBENZOFURAN UNLABELED	(CAS No) 51207-31-9	0.000007	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 40321-76-4	0.000007	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,7,8-PENTACHLORODIBENZOFURAN UNLABELED	(CAS No) 57117-41-6	0.000007	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
2,3,4,7,8-PENTACHLORODIBENZOFURAN UNLABELED	(CAS No) 57117-31-4	0.000007	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 1746-01-6	0.000007	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
OCTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 39001-02-0 (Unlabeled)	0.000007	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
OCTACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 3268-87-9 (Unlabeled)	0.000007	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 39227-28-6 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 19408-74-3 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 70648-26-9 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 72918-21-9 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 60851-34-5 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 67562-39-4 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 57117-44-9 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 57652-85-7 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,6,8,9-HEPTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 69698-58-4 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 55673-89-7 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 35822-46-9 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,6,7-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) NA	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,7,8-PENTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 57117-46-6 (Unlabeled)	0.0000014	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
2,3,4,7,8-PENTACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 57117-31-4 (Unlabeled)	0.0000014	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413

Safety Data Sheet

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 40321-76-4 (Unlabeled)	0.0000014	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
2,3,7,8-TETRACHLORODIBENZOFURAN (13C12, 99%)	(CAS No) 51207-31-9 (Unlabeled)	0.0000014	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 4, H413
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 50585-41-6 (Unlabeled)	0.0000014	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 116865-58-8	0.0000014	Acute Tox. 1 (Dermal), H310 Muta. 2, H341 STOT SE 2, H371 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C6, 99%)	(CAS No) 30746-58-8 (Unlabeled)	0.0000014	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	99.8804777	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336 Asp. Tox. 1, H304
TOLUENE UNLABELED	(CAS No) 108-88-3	0.1192215	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
OCTACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 3268-87-9	0.0000348	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 39227-28-6	0.0000139	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 57652-85-7	0.0000139	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 35822-46-9	0.0000139	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 40321-76-4	0.000007	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN UNLABELED	(CAS No) 1746-01-6	0.000007	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
OCTACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 3268-87-9 (Unlabeled)	0.000007	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 39227-28-6 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 19408-74-3 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 57652-85-7 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 35822-46-9 (Unlabeled)	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4,6,7-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) NA	0.0000028	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 40321-76-4 (Unlabeled)	0.0000014	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413

Safety Data Sheet

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

Name	Product identifier	%	GHS-US classification
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 50585-41-6 (Unlabeled)	0.0000014	Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%)	(CAS No) 116865-58-8	0.0000014	Acute Tox. 1 (Dermal), H310 Muta. 2, H341 STOT SE 2, H371 Asp. Tox. 1, H304

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

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Move out of dangerous area. Consult a physician and show this safety data sheet.
First-aid measures after inhalation	 Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.
First-aid measures after ingestion	: Immediately call a POISON CENTER or doctor/physician.
4.2. Most important symptoms and e	ffects, both acute and delayed
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways.
4.3. Indication of any immediate med	lical attention and special treatment needed
No additional information available	
SECTION 5: Firefighting measure	e
	5
5.1. Extinguishing media	
Suitable extinguishing media	For small fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied a a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.
5.2. Special hazards arising from the	substance or mixture
Fire hazard	: Flammable liquid and vapour.
Explosion hazard	: May form flammable/explosive vapour-air mixture.
Reactivity	: Vapors may form explosive mixture with air.
5.3. Advice for firefighters	
Firefighting instructions	: Wear self contained breathing apparatus for fire fighting if necessary.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Use water spray to cool unopened containers.
SECTION 6: Accidental release m	easures
6.1. Personal precautions, protective	equipment and emergency procedures
General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
6.1.1. For non-emergency personnel	
Emergency procedures	: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapour accumulating to form explosive concentrations. Vapours can accumulate in low areas.
6.1.2. For emergency responders	
No additional information available	
6.2. Environmental precautions	

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

Safety Data Sheet

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

6.3.	Methods and material for containment and cleaning up				
For conta	ainment	:	Contain spillage, then collect with non-combustible absorbent material. Disposal should be in accordance with applicable Federal, State and local regulations.		
6.4.	Reference to other sections				
No additi	onal information available				
SECTIO	ON 7: Handling and storage				
7.1.	Precautions for safe handling				
Additiona	al hazards when processed	:	Handle empty containers with care because residual vapours are flammable.		
Precautio	ons for safe handling	:	No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area.		
Hygiene	measures	:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.		
7.2.	Conditions for safe storage, includin	g	any incompatibilities		
Technica	l measures	:	Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.		
Storage of	conditions	:	Store at room temperature away from light and moisture.		
Incompat	tible materials	:	Heat sources.		
7.3.	Specific end use(s)				
No additi	onal information available				

SECTION 8: Exposure controls/personal protection

8.1. Control parameters		
DIOXIN & FURAN FOOD/FEE	D/QQQ CAL. STANDARD (CS7) (UNLABELED/13C12,	99%) IN NONANE
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200.0000000000 ppm Central Nervous System impairment.
N-NONANE UNLABELED (11	1-84-2)	
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200.0000000000 ppm Central Nervous System impairment.
	- 00 0)	·
TOLUENE UNLABELED (108	-88-3)	
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.0000000000 ppm Visual impairment, Female reproductive, Pregnancy loss
USA OSHA	OSHA PEL (TWA) (ppm)	100.0000000000 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (STEL) (ppm)	150.0000000000 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000

8.2. **Exposure controls**

- Appropriate engineering controls
- : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

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



Hand protection	: protective gloves.
Eye protection	: Wear safety glasses with side shields (or goggles) and a face shield.
Skin and body protection	: Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	: When appropriate, use NIOSH/CEN approved respirator.
Environmental exposure controls	: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
SECTION 9: Physical and char	nical properties

SECTION 9: Physical and c	hemical properties	
9.1. Information on basic ph	9.1. Information on basic physical and chemical properties	
The properties listed below are for the solvent, t	he main component of this mixture.	
Physical state	: Liquid	
Appearance	: Liquid.	
Molecular mass	: 128.3 g/mol	
27/01/2017	EN (English)	9/20
27/01/2017	EN (English)	9/20

Safety Data Sheet

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

5 5 ()	5 5 7
Colour	: Colourless.
Odour	: No data available
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: -53 °C (- 63 °F) - lit
Boiling point	: 151 °C (304 °F) - lit
Flash point	: 31.0 °C (87.8 °F) - closed cup
Auto-ignition temperature	: 205 °C (401 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour
Vapour pressure	: 12.4 hPa (9.3 mmHg) at 37.7 °C (99.9 °F)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.718 g/ml at 25 °C (77 °F)
Solubility	: Water: 0 %
Log Pow	: 5.65
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 0.87 - 2.9 % (V)

Other information 9.2.

No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
Vapors may form explosive mixture with air.
10.2. Chemical stability
See storage and expiration date on CoA.
10.3. Possibility of hazardous reactions
No additional information available
10.4. Conditions to avoid
Open flame. Overheating. Direct sunlight. Heat. Sparks.
10.5. Incompatible materials
Strong oxidizing agents.
10.6. Hazardous decomposition products
May release flammable gases.

SECTION 11: Toxicological information Information on toxicological effects 11.1. Acute toxicity : Harmful if inhaled. DIOXIN & FURAN FOOD/FEED/QQQ CAL. STANDARD (CS7) (UNLABELED/13C12, 99%) IN NONANE LC50 inhalation rat (mg/l) 23760 mg/m³ male - 4 h LC50 inhalation rat (ppm) 3200 ppm/4h ATE CLP (gases) 3200.000 ppmv/4h ATE CLP (vapours) 11.000 mg/l/4h ATE CLP (dust,mist) 1.500 mg/l/4h

N-NONANE UNLABELED (111-84-2)	
LC50 inhalation rat (mg/l)	23760 mg/m ³ male - 4 h
LC50 inhalation rat (ppm)	3200 ppm/4h
ATE CLP (gases)	3200.000 ppmv/4h
ATE CLP (vapours)	11.000 mg/l/4h
27/01/2017	EN (English) 10/20

Safety Data Sheet

N-NONANE UNLABELED (111-84-2)	
· · · · ·	22 760 mg///4b
ATE CLP (dust,mist)	23.760 mg/l/4h
TOLUENE UNLABELED (108-88-3)	
LD50 oral rat	> 5580 mg/kg
LD50 dermal rabbit	12196 mg/kg
LC50 inhalation rat (mg/l)	12500 - 28800 mg/m³ 4 h
ATE CLP (dermal)	12196.000 mg/kg bodyweight
ATE CLP (vapours)	12.500 mg/l/4h
ATE CLP (dust,mist)	12.500 mg/l/4h
2,3,7,8-TETRACHLORODIBENZOFURAN UNL	ABELED (51207-31-9)
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,7,8-PENTACHLORODIBENZOFURAN (13	C12 99%) (57117-46-6 (Unlabeled))
ATE CLP (oral)	500.000 mg/kg bodyweight
2,3,4,7,8-PENTACHLORODIBENZOFURAN (13	
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	(13C12, 99%) (40321-76-4 (Unlabeled))
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	(13C12, 99%) (39227-28-6 (Unlabeled))
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	UNLABELED (39227-28-6)
ATE CLP (oral)	500.000 mg/kg bodyweight
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,7,8-PENTACHLORODIBENZOFURAN UN	LABELED (57117-41-6)
ATE CLP (oral)	500.000 mg/kg bodyweight
2,3,4,7,8-PENTACHLORODIBENZOFURAN UN	LABELED (57117-31-4)
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (13	
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (13	3C12, 99%) (72918-21-9 (Unlabeled))
ATE CLP (oral)	500.000 mg/kg bodyweight
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (13	8C12 99%) (60851-34-5 (Unjabeled))
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (13	3C12, 99%) (57117-44-9 (Unlabeled))
ATE CLP (oral)	500.000 mg/kg bodyweight
2,3,7,8-TETRACHLORODIBENZOFURAN (13C	
ATE CLP (oral)	500.000 mg/kg bodyweight
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (1	3C12, 99%) (50585-41-6 (Unlabeled))
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	(13C12, 99%) (57652-85-7 (Unlabeled))
ATE CLP (oral)	500.000 mg/kg bodyweight
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN U	
ATE CLP (oral)	500.000 mg/kg bodyweight
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	UNLABELED (57652-85-7)
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN ATE CLP (oral)	500.000 mg/kg bodyweight

Safety Data Sheet

1,2,3,4,7,8-HEXACHLORODIBENZOFURAN UN	ILABELED (70648-26-9)	
ATE CLP (oral)	500.000 mg/kg bodyweight	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	UNLABELED (67562-39-4)	
ATE CLP (oral)	500.000 mg/kg bodyweight	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN UN ATE CLP (oral)	500.000 mg/kg bodyweight	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN UN	ILABELED (72918-21-9)	
ATE CLP (oral)	500.000 mg/kg bodyweight	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN UN	ILABELED (60851-34-5)	
ATE CLP (oral)	500.000 mg/kg bodyweight	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN ATE CLP (oral)	500.000 mg/kg bodyweight	
ATE CLP (dermal)	1100.000 mg/kg bodyweight	
ATE CLP (dust,mist)	1.500 mg/l/4h	
1,2,3,4,6,8,9-HEPTACHLORODIBENZOFURAN		
ATE CLP (oral)	500.000 mg/kg bodyweight	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	(13C12, 99%) (55673-89-7 (Unlabeled))	
ATE CLP (oral)	500.000 mg/kg bodyweight	
OCTACHLORODIBENZOFURAN (13C12, 99%)	(20001-02-0 (Uplabolod))	
ATE CLP (oral)	500.000 mg/kg bodyweight	
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIO		
ATE CLP (oral)	500.000 mg/kg bodyweight	
OCTACHLORODIBENZO-P-DIOXIN (13C12, 99	%) (3268-87-9 (Unlabeled))	
ATE CLP (oral)	500.000 mg/kg bodyweight	
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIO	(IN LINI ARELED (35822-46-9)	
ATE CLP (oral)	500.000 mg/kg bodyweight	
. ,		
ATE CLP (oral)	500.000 mg/kg bodyweight	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	UNLABELED (55673-89-7)	
ATE CLP (oral)	500.000 mg/kg bodyweight	
OCTACHLORODIBENZO-P-DIOXIN UNLABEL	ED (3268-87-9)	
	500.000 mg/kg bodyweight	
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (1 LD50 oral	0.013 mg/kg	
LD50 dermal	0.275 mg/kg	
ATE CLP (dermal)	5.000 mg/kg bodyweight	
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (1		
ATE CLP (oral)	5.000 mg/kg bodyweight	
ATE CLP (dermal)	5.000 mg/kg bodyweight	
ATE CLP (dust,mist)	0.050 mg/l/4h	
1,2,3,4,6,7-HEXACHLORODIBENZO-P-DIOXIN		
ATE CLP (oral)	500.000 mg/kg bodyweight	
Skin corrosion/irritation	Causes skin irritation.	
	Skin - rat - Skin irritation - Draize test	
Serious eye damage/irritation	Causes serious eye irritation.	
	No data available	
Respiratory or skin sensitisation	Not available	
	No data available	
Germ cell mutagenicity	Not available	
	Not classified	

Safety Data Sheet

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

Reproductive toxicity	: Not available
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.
	May cause drowsiness or dizziness.
Specific target organ toxicity (repeated	: Not classified
exposure)	No data available
Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential adverse human health effects and symptoms	: Harmful if inhaled.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways.

SECTION 12: E	Eggladiagl	information

12.1. Toxicity

TOLUENE UNLABELED (108-88-3)	
LC50 fish 1	74 - 340 mg/l Lepomis macrochirus (Bluegill) - 96h
LC50 other aquatic organisms 1	10 mg/l Pseudokirchneriella subcapitata (Green algae) - 24 h
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
LOEC (chronic)	8.04 mg/l Pimephales promelas (Fathead minnow) - 7 d
NOEC (chronic)	5.44 mg/l Pimephales promelas (fathead minnow) - 7 d

12.2. Persistence and degradability

1,2,3,7,8-PENTACHLORODIBENZOFURAN (I3C12, 99%) (57117-46-6 (Unlabeled))	
Persistence and degradability	Not available.	
2,3,4,7,8-PENTACHLORODIBENZOFURAN (13C12, 99%) (57117-31-4 (Unlabeled))		
Persistence and degradability	Not available.	
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (13C12, 99%) (70648-26-9 (Unlabeled))		
Persistence and degradability	Not available.	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (13C12, 99%) (72918-21-9 (Unlabeled))	
Persistence and degradability	Not available.	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (13C12, 99%) (60851-34-5 (Unlabeled))	
Persistence and degradability	Not available.	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURA	N (13C12, 99%) (67562-39-4 (Unlabeled))	
Persistence and degradability	Not available.	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (13C12, 99%) (57117-44-9 (Unlabeled))	
Persistence and degradability	Not available.	
2,3,7,8-TETRACHLORODIBENZOFURAN (13	C12, 99%) (51207-31-9 (Unlabeled))	
Persistence and degradability	Not available.	
1,2,3,4,6,8,9-HEPTACHLORODIBENZOFURA	N (13C12, 99%) (69698-58-4 (Unlabeled))	
Persistence and degradability	Not available.	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (13C12, 99%) (55673-89-7 (Unlabeled))		
Persistence and degradability	Not available.	
OCTACHLORODIBENZOFURAN (13C12, 99%) (39001-02-0 (Unlabeled))		
Persistence and degradability	Not available.	
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%) (116865-58-8)		
Persistence and degradability	May cause long-term adverse effects in the environment.	

Safety Data Sheet

12.3. Bioaccumulative potential	
DIOXIN & FURAN FOOD/FEED/QQQ CAL. ST	ANDARD (CS7) (UNLABELED/13C12, 99%) IN NONANE
Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.
N-NONANE UNLABELED (111-84-2)	
Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.
1,2,3,7,8-PENTACHLORODIBENZOFURAN (1	3C12, 99%) (57117-46-6 (Unlabeled))
Bioaccumulative potential	Not available.
2,3,4,7,8-PENTACHLORODIBENZOFURAN (1	3C12, 99%) (57117-31-4 (Unlabeled))
Bioaccumulative potential	Not available.
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1	I3C12, 99%) (70648-26-9 (Unlabeled))
Bioaccumulative potential	Not available.
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1	 3C12_99%) (72918-21-9 (Inlabeled))
Bioaccumulative potential	Not available.
•	12C12, 000() (60951, 24.5 (p abalad))
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (1 Bioaccumulative potential	Not available.
۱ 	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURA Bioaccumulative potential	N (13C12, 99%) (67562-39-4 (Unlabeled)) Not available.
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1	
Bioaccumulative potential	Not available.
2,3,7,8-TETRACHLORODIBENZOFURAN (130	
Bioaccumulative potential	Not available.
1,2,3,4,6,8,9-HEPTACHLORODIBENZOFURA	N (13C12, 99%) (69698-58-4 (Unlabeled))
Bioaccumulative potential	Not available.
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURA	N (13C12, 99%) (55673-89-7 (Unlabeled))
Bioaccumulative potential	Not available.
OCTACHLORODIBENZOFURAN (13C12, 99%	b) (39001-02-0 (Unlabeled))
Bioaccumulative potential	Not available.
12.4. Mobility in soil	
	2C42,000(),(57447,46,6,())
1,2,3,7,8-PENTACHLORODIBENZOFURAN (1 Ecology - soil	Not available.
2,3,4,7,8-PENTACHLORODIBENZOFURAN (1 Ecology - soil	3C12, 99%) (5/11/-31-4 (Unlabeled)) Not available.
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1	
Ecology - soil	Not available.
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1	
Ecology - soil	Not available.
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (1	
Ecology - soil	Not available.
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURA	N (13C12, 99%) (67562-39-4 (Unlabeled))
Ecology - soil	Not available.
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1	I3C12, 99%) (57117-44-9 (Unlabeled))
Ecology - soil	Not available.
2,3,7,8-TETRACHLORODIBENZOFURAN (130	C12, 99%) (51207-31-9 (Unlabeled))
Ecology - soil	Not available.
1,2,3,4,6,8,9-HEPTACHLORODIBENZOFURA	N (13C12, 99%) (69698-58-4 (Unlabeled))
Ecology - soil	Not available.
	1

Safety Data Sheet

1,2,3,4,7,8,9-HEPTACHLORODIBENZOFUR	AN (13C12, 99%) (55673-89-7 (Unlabeled))
Ecology - soil	Not available.
OCTACHLORODIBENZOFURAN (13C12, 99	%) (39001-02-0 (Unlabeled))
Ecology - soil	Not available.
12.5. Results of PBT and vPvB assessme	ent
No additional information available	
12.6. Other adverse effects	
Other adverse effects	: An environmental hazard cannot be excluded in the event of unprofessional handling or disposa
	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
SECTION 13: Disposal consideration	ns
13.1. Waste treatment methods	
Regional legislation (waste)	: Waste materials should be disposed of under conditions which meet Federal, State, and Local
	environmental control regulations.
Waste disposal recommendations	: 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 / A	
14.1. UN number UN-No.(DOT)	: 1920
DOT NA no.	UN1920
	011020
14.2. UN proper shipping name	
Proper Shipping Name (DOT)	: Nonanes
Transport hazard class(es) (DOT) Hazard labels (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 : 3 - Flammable liquid
	3
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
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
14.3. Additional information	
Other information	: No supplementary information available.
Overland transport	
Packing group (ADR)	: 111
Class (ADR)	: 3 - Flammable liquids
Hazard identification number (Kemler No.)	: 30
Classification code (ADR)	: 50 : F1
27/01/2017	EN (English) 15/20

Safety Data Sheet

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

Danger labels (ADR)	: 3 - Flammable liquids
	3
Orange plates	30 1920
Tunnel restriction code	: D/E
Limited quantities (ADR)	51
EAC code	: 3Y
Excepted quantities (ADR)	: E1
Transport by sea	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
MFAG-No	: 128
Air transport	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L
Civil Aeronautics Law	: Flammable liquids(Hazardous materials notice Appended Table 1 Article 194 of the Enforcement Regulations)
14.4. Environmental hazards	
Other information	: No supplementary information available.
14.5. Special precautions for user	
14.6. Transport in bulk according to Anne	x II of MARPOL 73/78 and the IBC Code
Not applicable	
SECTION 15: Regulatory information	

15.1 US Endered regulation

15.1. US Federal regulations		
DIOXIN & FURAN FOOD/FEED/QQQ CAL. STANDARD (CS7) (UNLABELED/13C12, 99%) IN NONANE		
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard	
N-NONANE UNLABELED (111-84-2)		
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard	
TOLUENE UNLABELED (108-88-3)		
Subject to reporting requirements of United States SARA Section 313		
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	(13C12, 99%) (40321-76-4 (Unlabeled))	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory		
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	(13C12, 99%) (39227-28-6 (Unlabeled))	
Not listed on the United States TSCA (Toxic Sub	stances Control Act) inventory	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%) (19408-74-3 (Unlabeled))		
Not listed on the United States TSCA (Toxic Substances Control Act) inventory		
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (39227-28-6)		
Not listed on the United States TSCA (Toxic Substances Control Act) inventory		

Safety Data Sheet

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

1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN UNLABELED (40321-76-4)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%) (50585-41-6 (Unlabeled))
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%) (57652-85-7 (Unlabeled))
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN UNLABELED (1746-01-6)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN UNLABELED (57652-85-7)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (13C12, 99%) (35822-46-9 (Unlabeled))
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
OCTACHLORODIBENZO-P-DIOXIN (13C12, 99%) (3268-87-9 (Unlabeled))
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN UNLABELED (35822-46-9)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
OCTACHLORODIBENZO-P-DIOXIN UNLABELED (3268-87-9)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%) (116865-58-8)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory
1,2,3,4,6,7-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%) (NA)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

DIOXIN & FURAN FOOD/FEED/QQQ CAL. STANDARD (CS7) (UNLABELED/13C12, 99%) IN NONANE

Listed on the Canadian DSL (Domestic Substances List)

TOLUENE UNLABELED (108-88-3)

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations		
DIOXIN & FURAN FOOD/FEED/QQQ CAL. STANDARD (CS7) (UNLABELED/13C12, 99%) IN NONANE()		
State or local regulations	U.S Massachusetts - Right To Know List U.S Pennsylvania - RTK (Right to Know) List U.S New Jersey - Right to Know Hazardous Substance List This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.	

Safety Data Sheet

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

N-NONANE UNLABELED (111-84-2)

U.S. - Massachusetts - Right To Know List

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

U.S. - New Jersey - Right to Know Hazardous Substance List This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TOLUENE UNLABELED (108-88-3)

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

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

1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (13C12, 99%) (40321-76-4 (Unlabeled))

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

1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%) (39227-28-6 (Unlabeled))

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

1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%) (19408-74-3 (Unlabeled))

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

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

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

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

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

2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%) (50585-41-6 (Unlabeled))

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

1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%) (57652-85-7 (Unlabeled))

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

2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN UNLABELED (1746-01-6)

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

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

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

1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (13C12, 99%) (35822-46-9 (Unlabeled))

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

OCTACHLORODIBENZO-P-DIOXIN (13C12, 99%) (3268-87-9 (Unlabeled))

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

Safety Data Sheet

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

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

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

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

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

1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN (13C12, 99%) (116865-58-8)

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

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

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

1,2,3,4,6,7-HEXACHLORODIBENZO-P-DIOXIN (13C12, 99%) (NA)

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

SECTION 16: Other information

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-statements:

lext of R-, H- and EUH-statements.	
Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), 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 Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1A	Carcinogenicity, Category 1A
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H300	Fatal if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H310	Fatal in contact with skin
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H371	May cause damage to organs

Safety Data Sheet

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

H373	May cause damage to organs through prolonged or repeated exposure
H413	May cause long lasting harmful effects to aquatic life
R10	Flammable
R11	Highly flammable
R20	Harmful by inhalation
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R22	Harmful if swallowed
R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed
R27	Very toxic in contact with skin
R28	Very toxic if swallowed
R36	Irritating to eyes
R38	Irritating to skin
R40	Limited evidence of a carcinogenic effect
R45	May cause cancer
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R53	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
R65	Harmful: may cause lung damage if swallowed
R67	Vapours may cause drowsiness and dizziness
R68	Possible risk of irreversible effects
F	Highly flammable
Ν	Dangerous for the environment
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.
HMIS III Rating	
Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 3 Serious Hazard

: 0 Minimal Hazard

CIL Mixture SDS

Physical

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