

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: 12/09/2014 Revision date: 26/10/2017 Supersedes: 29/06/2015 Version: 3.0

EO-5003

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

1.1. Product identifier

Product form : Mixtures

Product name : DECABDE (BDE-209) (13C12, 99%) 50 UG/ML IN NONANE

Product code : EO-5003

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 <u>cilsales@isotope.com</u> 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:dust,mist) 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]

R10 Xn; R20 Xn; R65 Xi; R36/38 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. 2A H319
STOT SE 3 H336
Asp. Tox. 1 H304
Full text of H statements : see section 16

07/03/2018 EN (English) 1/11

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

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

2.2. Label elements

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

Hazard pictograms (CLP)







GHOU

Signal word (CLP) : Danger

Hazardous ingredients : N-NONANE UNLABELED

Hazard statements (CLP) : H226 - Flammable liquid and vapour

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation H319 - Causes serious eye irritation H332 - Harmful if inhaled

H336 - May cause drowsiness or dizziness

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

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 hands, forearms and face 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) : Danger

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

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H336 - May cause drowsiness or dizziness

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 hands, forearms and face 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 doctor, a POISON CENTER

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 doctor, a POISON CENTER if you feel unwell

P321 - Specific treatment (see Hazardous component(s) for labelling on this label)

P331 - Do NOT induce vomiting

P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention

07/03/2018 EN (English) 2/11

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

P362 - Take off contaminated clothing and wash before reuse

P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry

extinguishing powder 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

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	99.993	R10 Xn; R20 Xn; R65 Xi; R36/38 R67
DECABDE (BDE-209) (13C12, 99%)	(CAS No) 1163-19-5 (Unlabeled) (EC No) 214-604-9 (Unlabeled)	0.007	T; R25 Xn; R20 Xn; R22
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	99.993	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
DECABDE (BDE-209) (13C12, 99%)	(CAS No) 1163-19-5 (Unlabeled) (EC No) 214-604-9 (Unlabeled)	0.007	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332
Name	Product identifier	%	GHS-US classification
N-NONANE UNLABELED	(CAS No) 111-84-2	99.993	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

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

SECTION 4: First aid measures

4.1	l. [Descript	ion of t	first aid	measures

First-aid measures general : Call a physician immediately.

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

POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation

occurs: Wash with plenty of soap and water. Get medical advice/attention. Specific treatment

(see Hazard pictograms (CLP) on this label).

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/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.

07/03/2018 EN (English) 3/11

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/injuries after eye contact

: Causes serious eye irritation.

Symptoms/injuries after ingestion

: May be fatal if swallowed and enters airways. Risk of lung oedema.

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

Treat symptomatically.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide. Alcohol resistant foam.

Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

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

: Flammable liquid and vapour. Vapours may form flammable mixture with air. Reactivity

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

Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

: Wear personal protective equipment. Ventilate spillage area. No open flames, no sparks, and **Emergency procedures**

no smoking. Avoid breathing fume, gas, mist, spray, vapours. 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".

Environmental precautions

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

6.3. Methods and material for containment and cleaning up

: Dike and contain spill. Dispose as hazardous waste. Comply with local regulations for disposal. For containment

Methods for cleaning up Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

Other information : Dispose of materials or solid residues at an authorized site.

Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

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

: No open flames. No smoking. Take precautionary measures against static discharge. Use only Precautions for safe handling

non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust, mist or

Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Hygiene measures Always wash hands after handling the product.

Conditions for safe storage, including any incompatibilities

: Proper grounding procedures to avoid static electricity should be followed. Ground/bond Technical measures

container and receiving equipment. Use explosion-proof electrical equipment.

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

Incompatible materials : Heat sources.

Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

Control parameters

DECABDE (BDE-209) (13C12, 99%) 50 UG/ML IN NONANE		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	CNS impair

07/03/2018 EN (English) 4/11

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

DECABDE (BDE-209) (13C12	, 99%) 50 UG/ML IN NONANE	
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1050 mg/m³ 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/m³)	1050 mg/m³ 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/m³)	1050 California permissible exposure limits for chemical contaminants.
USA OSHA	OSHA PEL (Ceiling) (ppm)	200 ppm California permissible exposure limits for chemical contaminants.
DECABDE (BDE-209) (13C1)	2, 99%) (1163-19-5 (Unlabeled))	
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³
N-NONANE UNLABELED		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	CNS impair
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1050 mg/m³ 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/m³)	1050 mg/m³ 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/m³)	1050 California permissible exposure limits for chemical contaminants.
USA OSHA	OSHA PEL (Ceiling) (ppm)	200 ppm California permissible exposure limits for chemical contaminants.

Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

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









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

Hand protection : protective gloves.

Eye protection : Chemical goggles or face shield. Chemical goggles or safety glasses. Wear suitable protective clothing, gloves and eye/face protection. Skin and body protection

Where exposure through inhalation may occur from use, respiratory protection equipment is Respiratory protection

recommended. Approved respirator.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture. Physical state : Liquid Appearance : Liquid. Molecular mass : 128.3 g/mol Colour : Colourless. Odour : No data available

07/03/2018 EN (English) 5/11

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

Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : Not applicable
Freezing point : -53 °C (-63 °F) - lit
Boiling point : 151 °C (304 °F) - lit
Flash point : 31 °C (87.8 °F) - closed cup

Auto-ignition temperature : 205 °C (401 °F)

Decomposition temperature : No data available

Flammability (solid, gas) : Not applicable

Vapour pressure : 5.69 hPa (4.27 mmHg) at 25 °C (77 °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: 0.0002 % at 25 °C (77 °F) - slightly soluble

Log Pow : 5.65

Log Kow : No data available

Viscosity, kinematic : 1.008 mm²/s at 20 °C (68 °F)

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

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour. Vapours 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:dust,mist: Harmful if inhaled.

DECABDE (BDE-209) (13C12, 99%) 50 UG/ML IN NONANE		
LC50 inhalation rat (mg/l)	23760 mg/m³ male - 4 h	
ATE CLP (gases)	3200.000 ppmv/4h	
ATE CLP (vapours)	11.000 mg/l/4h	
ATE CLP (dust,mist)	23.760 mg/l/4h	
Skin corrosion/irritation, Dermal, rat	Result: Skin Irritation (Draize Test)	
Additional information	: S. Typhimurium Result: negative	
DECABDE (BDE-209) (13C12, 99%) (1163-19-5 (Unlabeled))		
ATE CLP (oral)	500.000 mg/kg bodyweight	
ATE CLD (dormal)	1100 000 mg/kg had wygight	

ATE CLP (dermai)	1100.000 mg/kg bodyweight
ATE CLP (gases)	4500.000 ppmv/4h
ATE CLP (vapours)	11.000 mg/l/4h
ATE CLP (dust,mist)	1.500 mg/l/4h

07/03/2018 EN (English) 6/11

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

<u> </u>	
N-NONANE UNLABELED	
LC50 inhalation rat (mg/l)	23760 mg/m³ male - 4 h
ATE CLP (gases)	3200.000 ppmv/4h
ATE CLP (vapours)	11.000 mg/l/4h
ATE CLP (dust,mist)	23.760 mg/l/4h
Skin corrosion/irritation, Dermal, rat	Result: Skin Irritation (Draize Test)
Additional information	: S. Typhimurium Result: negative
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause drowsiness or dizziness.
	May cause drowsiness or dizziness
STOT-repeated exposure	: Not classified

	No data available
DECABDE (BDE-209) (13C12, 99%) 50 UG/MI	IN NONANE
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight/day female (OECD Test Guildeline 408)
N-NONANE UNLABELED	
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight/day female (OECD Test Guildeline 408)
Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways. Risk of lung oedema.

SECTION 12: Ecological information

	XIC	

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

DECABDE (BDE-209) (13C12, 99%) 50 UG/ML IN NONANE		
EC50 Daphnia 1 0.2 mg/l static test EC50 - Daphnia magna (Water flea) - 48 h		
N-NONANE UNLABELED		
EC50 Daphnia 1	0.2 mg/l static test EC50 - Daphnia magna (Water flea) - 48 h	

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

DECABDE (BDE-209) (13C12, 99%) 50 UG/ML IN NONANE	
Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.
N-NONANE UNLABELED	
Log Pow	5.65
Bioaccumulative potential	Indication of bioaccumulation.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

07/03/2018 EN (English) 7/11

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

12.6. Other adverse effects

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

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.

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

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

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

SECTION 13: Disposal considerations

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

Packing group (ADR) : III

Class (ADR) : 3 - Flammable liquid

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

Danger labels (ADR) : 3 - Flammable liquids



07/03/2018 EN (English) 8/11

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

Orange plates :

30 1920

Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) 5I
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 : 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

DECABDE (BDE-209) (13C12, 99%) 50 UG/ML IN NONANE	
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 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.

N-NONANE UNLABELED					
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.				

15.2. International regulations

CANADA

DECABDE (BDE-209) (13C12, 99%) 50 UG/ML IN NONANE

Listed on the Canadian DSL (Domestic Substances List)

N-NONANE UNLABELED

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

N-NONANE UNLABELED

07/03/2018 EN (English) 9/11

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

DECABDE (BDE-209) (13C12, 99%) 50 UG/ML 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 Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S New Jersey - Right to Know Hazardous Substance List U.S Massachusetts - Right To Know List U.S Pennsylvania - RTK (Right to Know) List U.S New York - Reporting of Releases Part 597 - List of Hazardous Substances			

N-NONANE UNLABELED					
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

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

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:

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		
Asp. Tox. 1	Aspiration hazard, Category 1		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2		
Flam. Liq. 3	Flammable liquids, Category 3		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis		
H226	Flammable liquid and vapour		
H302	Harmful if swallowed		
H304	May be fatal if swallowed and enters airways		
H312	Harmful in contact with skin		
H315	Causes skin irritation		
H319	Causes serious eye irritation		
H332	Harmful if inhaled		
H336	May cause drowsiness or dizziness		
R10	Flammable		
R20	Harmful by inhalation		
R22	Harmful if swallowed		
R25	Toxic if swallowed		
R36/38	Irritating to eyes and skin		
R65	Harmful: may cause lung damage if swallowed		
R67	Vapours may cause drowsiness and dizziness		
Т	Toxic		
Xi	Irritant		

07/03/2018 EN (English) 10/11

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

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. 	2 0
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 Physical : 0 Minimal Hazard

CIL Mixture SDS

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

07/03/2018 EN (English) 11/11