

## 4,4'-DDE (RING-13C12, 99%) 100 UG/ML IN NONANE

### 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: 23/04/2015

Revision date:

Version: 1.0

### CLM-1627-S

	of the substance/mixture and of the company/undertaking
1.1. Product identifier	
Product form	: Mixtures
Product name.	: 4,4'-DDE (RING-13C12, 99%) 100 UG/ML IN NONANE
Product code	: CLM-1627-S
1.2. Relevant identified use	s of the substance or mixture and uses advised against
1.2.1. Relevant identified 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	of the safety data sheet
Cambridge Isotope Laboratories, Ir 50 Frontage Road Andover, MA 01810 USA	IC.
USA: 1-800-322-1174 Int: 1-978- cilsales@isotope.com www.isoto	
Emergency telephone r	number
Emergency numbers:	
Chemtrec: 1-800-424-9300 (24 ho International: 1-703-741-5970 (24	
<b>SECTION 2: Hazards ident</b>	ification
2.1. Classification of the su	bstance or mixture
Classification according to Regu	lation (EC) No. 1272/2008 [CLP]
Flam. Liq. 3	H226
Acute Tox. 4 (Inhalation:dust,mist)	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
STOT SE 3	H336
Asp. Tox. 1	H304
Full text of H-phrases: see section	16
Classification according to Direc	tive 67/548/EEC or 1999/45/EC
Xn; R20 Xn; R65 R10	
Full text of R-phrases: see section	16
Classification (GHS-US)	
Flam. Liq. 3	H226 H332 H315 H319

Adverse physicochemical, human health and environmental effects Central Nervous System.

H336

H304

STOT SE 3

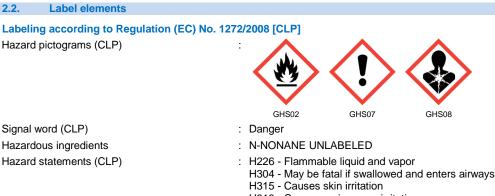
Asp. Tox. 1

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#### 2.2 Label elements

Precautionary statements (CLP)



- H319 Causes serious eye irritation
- H332 Harmful if inhaled
- H336 May cause drowsiness or dizziness
- : 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 ventilating, lighting, electrical equipment
  - P261 Avoid breathing vapors, spray, mist, gas, fume, dust
  - P264 Wash Both hands thoroughly after handling
  - P271 Use only outdoors or in a well-ventilated area
  - P280 Wear protective gloves, protective clothing, face protection, eye protection

GHS08

#### **GHS-US** labeling

Signal word (GHS-US)

Hazard pictograms (GHS-US)

Hazard statements (GHS-US)

Precautionary statements (GHS-US)

:		

GHS02

: Danger

- : H226 Flammable liquid and vapor
- H304 May be fatal if swallowed and enters airways

GHS07

- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H332 Harmful if inhaled
- H336 May cause drowsiness or dizziness
- P210 Keep away from sparks, open flames, hot surfaces, heat. No smoking

GHS08

- P233 Keep container tightly closed
- P240 Ground/bond container and receiving equipment
- P241 Use explosion-proof ventilating, electrical, lighting equipment
- P242 Use only non-sparking tools
- P243 Take precautionary measures against static discharge
- P261 Avoid breathing spray, vapors, mist, gas, fume, dust
- P264 Wash Both hands thoroughly after handling
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective gloves, protective clothing, face protection, eye protection

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

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

- P312 Call a POISON CENTER/doctor/physician if you feel unwell
- P321 Specific treatment (see Hazard pictograms (CLP) on this label)
- P331 If swallowed, do NOT induce vomiting
- P332+P313 If skin irritation occurs: Get medical advice/attention
- P337+P313 If eye irritation persists: Get medical advice/attention
- P362 Take off contaminated clothing and wash before reuse
- P370+P378 In case of fire: Use Alcohol resistant foam., Carbon dioxide., Dry chemical., Water spray for extinction
- P403+P233 Store in a well-ventilated place. Keep container tightly closed
- P403+P235 Store in a well-ventilated place. Keep cool

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

### 2.3. Other hazards

#### No additional information available

### SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable 3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
N-NONANE UNLABELED	(CAS No) 111-84-2 (EC no) 203-913-4	99.9861	R10 Xn; R20 Xn; R65 R67
4,4'-DDE (RING-13C12, 99%)	(CAS No) 72-55-9 (Unlabeled) (EC no) 200-784-6	0.0139	Carc.Cat.3; R40 Xn; R22 N; R50/53
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	99.9861	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
4,4'-DDE (RING-13C12, 99%)	(CAS No) 72-55-9 (Unlabeled) (EC no) 200-784-6	0.0139	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Name	Product identifier	%	Classification (GHS-US)
N-NONANE UNLABELED	(CAS No) 111-84-2	99.9861	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336 Asp. Tox. 1, H304

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

SECTION 4: First aid measures		
4.1. Description of first aid measures		
First-aid measures general	: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.	
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.	
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse.	
First-aid measures after eye contact	: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.	
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	<ul> <li>Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness.</li> </ul>	
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 medical attention and special treatment needed		
No additional information available		
SECTION 5: Firefighting measures		
5.1. Extinguishing media		
suitable extinguishing media	: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.	

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5.2. Special hazards arising from	he substance or mixture		
Fire hazard	: Flammable liquid and vapor.		
Explosion hazard	: May form flammable/explosive vapor-air mixture.		
Reactivity	: Vapors may form explosive mixture with air.		
5.3. Advice for firefighters			
Firefighting instructions	: Use water spray to cool unopened containers.		
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.		
<b>SECTION 6: Accidental release</b>	measures		
	ive equipment and emergency procedures		
General measures	: Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No		
	smoking.		
6.1.1. For non-emergency personne			
Emergency procedures	: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate		
Emergency procedures	ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours		
	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	to do ap. Do not let product onter drains. Discharge into the environment must be evolded		
	to do so. Do not let product enter drains. Discharge into the environment must be avoided.		
6.3. Methods and material for con			
For containment	: 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 additional information available			
SECTION 7: Handling and stora	ge		
7.1. Precautions for safe handling			
Additional hazards when processed	: Handle empty containers with care because residual vapors are flammable.		
Precautions for safe handling	No naked lights. 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, including any incompatibilities			
Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond		
	container and receiving equipment. Use explosion-proof electrical equipment.		
Storage conditions	: Store at room temperature away from light and moisture.		
Incompatible materials	: Heat sources.		
7.3. Specific end use(s)			
No additional information available			
<b>SECTION 8: Exposure controls</b>	bersonal protection		
8.1. Control parameters			
•			
N-NONANE UNLABELED (111-84-2)			
Italy - Portugal - USA ACGIH ACGIH	TWA (ppm) 200.000000000 ppm Central Nervous System impairment.		
8.2. Exposure controls			
Personal protective equipment			
Hand protection	: Wear suitable protective clothing and gloves.		
Eye protection	: Wear safety glasses with side shields (or goggles) and a face shield.		
Skin and body protection			
Respiratory protection			
	recommended. Wear respiratory protection.		
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SECTION 9: Physical and chemica	ang to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations	
9.1. Information on basic physical and		
The properties listed below are for the solvent, the main comp	ponent of this mixture.	
Physical state	: Liquid	
Appearance	: Liquid.	
Molecular mass	: 128.3	
Color	: No data available.	
Odor	: No data available	
Odor threshold	: No data available	
рН	: No data available	
Relative evaporation rate (butyl acetate=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	
Self ignition temperature	: 205 °C (401 °F)	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: Flammable liquid and vapor	
Vapor pressure	: 12.4 hPa (9.3 mmHg) at 37.7 °C (99.9 °F)	
Relative vapor density at 20 °C	: No data available	
Relative density	: No data available	
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	
Oxidizing properties	: No data available	
Explosive limits	: 0.87 - 2.9 % (V)	
9.2. Other information		
No additional information available		
SECTION 10: Stability and reactivity	ty	
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.		

#### Hazardous decomposition products 10.6.

May release flammable gases.

SECTION 11: Toxicological information			
11.1. Information on toxicological effects			
Acute toxicity :	Harmful if inhaled.		
4,4'-DDE (RING-13C12, 99%) 100 UG/ML IN NONANE			
LC50 inhalation rat (ppm)	3200 ppm/4h		
ATE (dust, mist)	1.500 mg/l/4h		
N-NONANE UNLABELED (111-84-2)			
LC50 inhalation rat (ppm)	3200 ppm/4h		
ATE (dust, mist)	1.500 mg/l/4h		

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4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlab		
LD50 oral rat	880 mg/kg	
ATE (oral)	880.000 mg/kg body weight	
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 sensitization	: Not available	
	No data available	
Germ cell mutagenicity	: Not available	
Carcinogenicity	: Not classified	
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: Ecological information		
12.1. Toxicity		
4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled))		
LC50 fish 1	0.2 - 0.3 mg/l Lepomis macrochirus (Bluegill) - 96 h	
12.2. Persistence and degradability		
4,4'-DDE (RING-13C12, 99%) 100 UG/ML IN NONANE		
Persistence and degradability Not available.		
N-NONANE UNLABELED (111-84-2)		
Persistence and degradability	Not available.	
4,4'-DDE (RING-13C12, 99%) (72-55-9 (Unlabeled))		
Persistence and degradability	Not available.	
12.3. Bioaccumulative potential		
4,4'-DDE (RING-13C12, 99%) 100 UG/ML 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.	
4,4'-DDE (RING-13C12, 99%) (72-	55-9 (Unlabeled))	
Log Pow	6.51	
12.4. Mobility in soil		
4,4'-DDE (RING-13C12, 99%) 100	UG/ML IN NONANE	
Ecology - soil	Not available.	
N-NONANE UNLABELED (111-84	-2)	
Ecology - soil	Not available.	
4,4'-DDE (RING-13C12, 99%) (72-	55-9 (Unlabeled))	
Ecology - soil	Not available.	
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according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Harmful to aqua         SECTION 13: Disposal considerations         13.1. Waste treatment methods         Regional legislation (waste)       : Waste materials environmental conversions         Waste disposal recommendations       : Dispose in a saf         Additional information       : Handle empty colspanse         Ecology - waste materials       : Hazardous wast         SECTION 14: Transport information       In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA         14.1. UN number       UN-No. (DOT)         UN-No. (DOT)       : 1920         DOT NA no.       UN1920         14.2. UN proper shipping name       : Nonanes         Department of Transportation (DOT) Hazard       : 3 - Class 3 - Fla         Classes       : 3 - Class 3 - Fla         Hazard labels (DOT)       : III - Minor Dange         DOT Special Provisions (49 CFR 172.102)       : B1 - If the materials         Packing group (DOT)       : B1 - If the materials         UN proper shipping name       : Ray and the packaging flash point of lessubchapter are are and the packaging flash point of lessubchapter are are are and the packaging flash point of lessubchapter are are are are are are and the packaging flash point of lessubchapter are are are are are are are are are a	ic organisms, may cause long-term adverse effects in the aquatic environment. should be disposed of under conditions which meet Federal, State, and Local introl regulations. e manner in accordance with local/national regulations. intainers with care because residual vapors are flammable. e due to toxicity.
12.6. Other adverse effects       : An environment Harmful to aqua         SECTION 13: Disposal considerations         13.1. Waste treatment methods         Regional legislation (waste)       : Waste materials environmental convironmental of the environmental of the environmentale	ic organisms, may cause long-term adverse effects in the aquatic environment. should be disposed of under conditions which meet Federal, State, and Local introl regulations. e manner in accordance with local/national regulations. intainers with care because residual vapors are flammable. e due to toxicity.
Other adverse effects       : An environment Harmful to aqua         SECTION 13: Disposal considerations         13.1.       Waste treatment methods         Regional legislation (waste)       : Waste materials environmental conversionmental conversionmentation         Vaste disposal recommendations       : Dispose in a saft Additional information         Additional information       : Handle empty conversionmentation         Ecology - waste materials       : Hazardous wast         SECTION 14: Transport information       In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA         14.1.       UN number         UN-No.(DOT)       : 1920         DOT NA no.       UN1920         14.2.       UN proper shipping name         DOT Proper Shipping Name       : Nonanes         Department of Transportation (DOT) Hazard       : 3 - Class 3 - Fla         Classes       : 3 - Class 3 - Fla         Hazard labels (DOT)       : III - Minor Dange         DOT Special Provisions (49 CFR 172.102)       : B1 - If the material bulk packaging of flash point of les         Subchapter are are alba - Authorized (31HZ1 and 31HZ1	should be disposed of under conditions which meet Federal, State, and Local introl regulations. e manner in accordance with local/national regulations. intainers with care because residual vapors are flammable. e due to toxicity.
SECTION 13: Disposal considerations         13.1.       Waste treatment methods         Regional legislation (waste)       :       Waste materials environmental c         Waste disposal recommendations       :       Dispose in a saf         Additional information       :       Handle empty c         Ecology - waste materials       :       Hazardous wast         SECTION 14: Transport information       :       Hazardous wast         SECTION 14: Transport information       :       Hazardous wast         In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA       14.1.       UN number         UN-No.(DOT)       :       1920         DOT NA no.       UN1920       14.2.       UN proper shipping name         DOT Proper Shipping Name       :       Nonanes         Department of Transportation (DOT) Hazard       :       3 - Class 3 - Fla         Classes       :       3 - Class 3 - Fla         Hazard labels (DOT)       :       :       III - Minor Dange         DOT Special Provisions (49 CFR 172.102)       :       B1 - If the mater         Valk packaging if this point of les       subchapter are and       B3 - Authorized         (31HZ1 and 31H       with a vapor pre       C (1.3 baprat 13)       2 for UN2672),	should be disposed of under conditions which meet Federal, State, and Local introl regulations. e manner in accordance with local/national regulations. intainers with care because residual vapors are flammable. e due to toxicity.
13.1.       Waste treatment methods         Regional legislation (waste)       :       Waste materials environmental c servironmental c         Waste disposal recommendations       :       Dispose in a saf         Additional information       :       Handle empty c         Ecology - waste materials       :       Hazardous wast         SECTION 14: Transport information       :       Hazardous wast         In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA       14.1.       UN number         UN-No.(DOT)       :       1920         DOT NA no.       UN1920       14.2.         14.2.       UN proper shipping name       :         DoT Proper Shipping Name       :       Nonanes         Department of Transportation (DOT) Hazard       :       3 - Class 3 - Fla         Classes       :       3 - Class 3 - Fla         Hazard labels (DOT)       :       III - Minor Dange         Packing group (DOT)       :       III - Minor Dange         DOT Special Provisions (49 CFR 172.102)       :       B1 - If the mater         B1 - If the mater       bulk packaging 1       ifash point of les         subchapter are are       IB3 - Authorized       ifash a vapor pre         C (1.3 bara t13)       2 for UN2672).       T	ntrol regulations. manner in accordance with local/national regulations. ntainers with care because residual vapors are flammable. due to toxicity. nmable and combustible liquid 49 CFR 173.120
Regional legislation (waste): Waste materials environmental cWaste disposal recommendations: Dispose in a saf Additional informationAdditional information: Handle empty cEcology - waste materials: Hazardous wastSECTION 14: Transport informationIn accordance with ADR / RID / ADNR / IMDG / ICAO / IATA14.1.UN numberUN-No.(DOT): 1920DOT NA no.UN192014.2.UN proper shipping nameDOT Proper Shipping Name: NonanesDepartment of Transportation (DOT) Hazard: 3 - Class 3 - FlaClasses: 3 - Class 3 - FlaHazard labels (DOT): 11 - Minor DangePacking group (DOT): III - Minor DangeDOT Special Provisions (49 CFR 172.102): B1 - If the mater bulk packaging 1 flash point of les subchapter are a IB3 - Authorized (31HZ1 and 31H with a vapor pre C (1.3 bar at 13 2 for UN2672). T2 - 1.5 178.272 TP1 - The maxin following: Degre during transport	ntrol regulations. manner in accordance with local/national regulations. ntainers with care because residual vapors are flammable. due to toxicity. nmable and combustible liquid 49 CFR 173.120
Additional information : Handle empty of Ecology - waste materials : Hazardous wast SECTION 14: Transport information In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA 14.1. UN number UN-No.(DOT) : 1920 DOT NA no. UN1920 14.2. UN proper shipping name DOT Proper Shipping Name : Nonanes Department of Transportation (DOT) Hazard Classes Hazard labels (DOT) : 3 - Flammable li Packing group (DOT) : 1II - Minor Dange DOT Special Provisions (49 CFR 172.102) : B1 - If the mater bulk packaging if flash point of les subchapter are IB3 - Authorized (31HZ1 and 31H with a vapor pre C (1.3 bar at 13 2 for UN2672). T2 - 1.5 178.272. TP1 - The maxin following: Degre during transport	ntainers with care because residual vapors are flammable. e due to toxicity.
Ecology - waste materials : Hazardous wast SECTION 14: Transport information In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA 14.1. UN number UN-No.(DOT) : 1920 DOT NA no. UN1920 14.2. UN proper shipping name DOT Proper Shipping Name : Nonanes Department of Transportation (DOT) Hazard Classes Hazard labels (DOT) : 3 - Flammable li Packing group (DOT) DOT Special Provisions (49 CFR 172.102) Packing droup (DOT) : Hazard : 10 - Minor Dange Subchapter are a IB3 - Authorized (31HZ1 and 31H with a vapor pre C (1.3 bar at 13 2 for UN2672). T2 - 1.5 178.274 TP1 - The maxin following: Degre during transport	a due to toxicity.
SECTION 14: Transport information         In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA         14.1.       UN number         UN-No.(DOT)       : 1920         DOT NA no.       UN1920         14.2.       UN proper shipping name         DOT Proper Shipping Name       : Nonanes         Department of Transportation (DOT) Hazard       : 3 - Class 3 - Fla         Classes       : 3 - Class 3 - Fla         Hazard labels (DOT)       : III - Minor Dange         Packing group (DOT)       : III - Minor Dange         DOT Special Provisions (49 CFR 172.102)       : B1 - If the mater         bulk packaging I       IB3 - Authorized         (31HZ1 and 31H       with a vapor per         C (1.3 bar at 13)       2 for UN2672)         T2 - 1.5 178.274       TP1 - The maxir	nmable and combustible liquid 49 CFR 173.120
In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA          14.1.       UN number         UN-No.(DOT)       : 1920         DOT NA no.       UN1920         14.2.       UN proper shipping name         DOT Proper Shipping Name       : Nonanes         Department of Transportation (DOT) Hazard       : 3 - Class 3 - Fla         Classes       : 3 - Flammable li         Hazard labels (DOT)       : III - Minor Dange         Packing group (DOT)       : III - Minor Dange         DOT Special Provisions (49 CFR 172.102)       : B1 - If the mater         bulk packaging if flash point of les       : B3 - Authorized         IB3 - Authorized       : (31HZ1 and 31H)         with a vapor pre       C (1.3 bar at 13 2 for UN2672).         T2 - 1.5 178.274       TP1 - The maxir         following: Degred       during transport	
14.1. UN number         UN-No.(DOT)       : 1920         DOT NA no.       UN1920         14.2. UN proper shipping name       UN1920         DOT Proper Shipping Name       : Nonanes         Department of Transportation (DOT) Hazard       : 3 - Class 3 - Fla         Classes       : 3 - Flammable li         Hazard labels (DOT)       : 3 - Flammable li         Packing group (DOT)       : B1 - If the mater bulk packaging if lash point of les subchapter are a lB3 - Authorized (31HZ1 and 31H with a vapor pre C (1.3 bar at 13 2 for UN2672). T2 - 1.5 178.274 TP1 - The maxir following: Degree during transport	
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<ul> <li>14.2. UN proper shipping name</li> <li>DOT Proper Shipping Name</li> <li>Department of Transportation (DOT) Hazard</li> <li>Classes</li> <li>Hazard labels (DOT)</li> <li>Packing group (DOT)</li> <li>DOT Special Provisions (49 CFR 172.102)</li> <li>Ell - If the mater bulk packaging I flash point of les subchapter are a IB3 - Authorized (31HZ1 and 31H with a vapor pre C (1.3 bar at 13 2 for UN2672). T2 - 1.5 178.274 TP1 - The maxir following: Degred during transport</li> </ul>	
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<b>-</b> .	al has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the equirements of 173.241 of this subchapter are applicable. If the material has a s than 38 C (100 F), then the bulk packaging requirements of 173.242 of this
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203	
DOT Packaging Bulk (49 CFR 173.xxx) : 242	
14.3. Additional information	n information available
Other information : No supplementa	y information available.
Overland transport	
Packing group (ADR) : III	
Class (ADR) : 3 - Flammable li	uid
Hazard identification number (Kemler No.) : 30	
Classification code (ADR) : F1	
Danger labels (ADR) : 3 - Flammable li	

EN (English US)

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

Orange plates	30 1920
Tunnel restriction code	: D/E
Limited quantities (ADR)	5L
EAC	: 3Y
Excepted quantities (ADR)	: E1
Transport by sea	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
MFAG-No	: 128
Air transport	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	0 : 220 L
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 Ann	ex II of MARPOL 73/78 and the IBC Code
Not applicable	
SECTION 15: Regulatory information	n

SECTION 15: Regulatory information		
15.1. US Federal regulations		
4,4'-DDE (RING-13C12, 99%) 100 UG/ML IN	(RING-13C12, 99%) 100 UG/ML IN NONANE	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard	
N-NONANE UNLABELED (111-84-2)		
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard	

CANADA				
4'-DDE (RING-13C12, 99%) 100 UG/ML IN NONANE				
Listed on the Canadian DSL (Domestic Substances List) inventory.				

#### 15.2.1. National regulations

No additional information available

15.3. US State regulations		
4,4'-DDE (RING-13C12, 99%) 100 UG/ML IN NONANE()		
State or local regulations	U.S Massachusetts - Right To Know List U.S Pennsylvania - RTK (Right to Know) List U.S New Jersey - Right to Know Hazardous Substance List This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.	

N-NONANE UNLABELED (111-84-2)	
	U.S Massachusetts - Right To Know List U.S Pennsylvania - RTK (Right to Know) List U.S New Jersey - Right to Know Hazardous Substance List
1.1	

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)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any 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-phrases::

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 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 2	Carcinogenicity Category 2
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
H226	Flammable liquid and vapor
H302	Harmful if swallowed
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
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R10	Flammable
R20	Harmful by inhalation
R22	Harmful if swallowed
R40	Limited evidence of a carcinogenic effect
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65	Harmful: may cause lung damage if swallowed
R67	Vapors may cause drowsiness and dizziness
N	Dangerous for the environment
Xn	Harmful

NFPA health hazard	: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	: 3 - Liquids and solids that can be ignited under almost all ambient conditions.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 3 Serious 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

: 0 Minimal Hazard