

# 4,4'-DDE UNLABELED 100 UG/ML IN NONANE

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: Date of issue: 10/09/2014

ULM-6137-S

Version: 1.0

<u>3ECT</u>	Product identifier	bstance/mixture and of the company/undertaking
Product		: Mixtures
Product		: 4,4'-DDE UNLABELED 100 UG/ML IN NONANE
Product	t code	: ULM-6137-S
1.2.	Relevant identified uses of the sub	stance or mixture and uses advised against
1.2.1.	Relevant identified uses	
Industri	al/Professional use spec	: For professional use only
1.2.2.	Uses advised against	
No addi	itional information available	
1.3.	Details of the supplier of the safety	/ data sheet
50 Fron Andove USA USA: 1	idge Isotope Laboratories, Inc. htage Road er, MA 01810 1-800-322-1174 Int: 1-978-749-8000	
<u>clisales</u>	<u>@isotope.com</u> www.isotope.com	
<b>-</b>	Emergency telephone number	
0	ency numbers:	
	rec: 1-800-424-9300 (24 hours) tional: 1-703-741-5970 (24 hours)	
SECT	ION 2: Hazards identification	
2.1.	Classification of the substance or	mixture
Classif	ication according to Regulation (EC)	No. 1272/2008 [CLP]
Flam. L	.iq. 3 H226	
Skin Irri	it. 2 H315	
Eye Irrit	t. 2 H319	
STOT S	SE 3 H336	
A T .	4 11004	

Asp. Tox. 1 H304

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

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

Xn; R20 Xn; R65 R10 Full text of R-phrases: see section 16

#### **GHS-US** classification

Flam. Liq. 3 H226 Skin Irrit. 2 H315 Eye Irrit. 2A H319 STOT SE 3 H336 Asp. Tox. 1 H304

Full text of H statements : see section 16

#### Adverse physicochemical, human health and environmental effects

Central Nervous System.

## 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



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

P405 - Store locked up

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

# Safety Data Sheet

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

#### 2.3. 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 Xi; R36/38 R67
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:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 Asp. Tox. 1, H304
Name	Product identifier	%	GHS-US classification
N-NONANE UNLABELED	(CAS No) 111-84-2	99.9861	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. Description of first aid measure	S
First-aid measures general	: Move out of dangerous area. Consult a physician and show this safety data sheet.
First-aid measures after inhalation	<ul> <li>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.</li> </ul>
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. 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	effects, both acute and delayed
Symptoms/injuries after inhalation	: 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 me	dical attention and special treatment needed

#### No additional information available

SECT	ION 5: Fire-fighting measures	
5.1.	Extinguishing media	
Suitabl	e 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 as 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 su	ubstance or mixture
Fire ha	zard	: Flammable liquid and vapour.
Explos	ion hazard	: May form flammable/explosive vapour-air mixture.
Reactiv	vity	: Vapors may form explosive mixture with air.

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

5.3. Advice for firefighter	rs			
Firefighting instructions		Wear self contained breathing appara	atus for fire fighting if necessary.	
• •		Do not enter fire area without proper protective equipment, including respiratory protection.		
SECTION 6: Accidental	release measu	IFAS		
		pment and emergency procedures		
General measures			I care to avoid static electric charges. No open flames. No	
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 vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.		
6.1.2. For emergency responses of the second				
6.2. Environmental preca				
Prevent further leakage or spilla	ge if safe to do so.	Do not let product enter drains. Disch	arge into the environment must be avoided.	
6.3. Methods and materia For containment			n-combustible absorbent material. Disposal should be in State and local regulations.	
6.4. Reference to other s				
No additional information availal				
SECTION 7: Handling ar				
7.1. Precautions for safe				
Additional hazards when proces			ecause residual vapours are flammable.	
Precautions 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 s	storage, including	any incompatibilities		
Technical measures		Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.		
Storage conditions : Incompatible materials :		Store at room temperature away from Heat sources.	light and moisture.	
7.3. Specific end use(s)				
No additional information availal	ble			
SECTION 8: Exposure c	ontrols/persor	al protection		
8.1. Control parameters				
4,4'-DDE UNLABELED 100 U	JG/ML IN NONANE			
Italy - Portugal - USA ACGIH	ACGIH TWA (ppr		200.00000000 ppm Central Nervous System impairment.	
N-NONANE UNLABELED				
Italy - Portugal - USA ACGIH	ACGIH TWA (ppr	m)	200.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)	
Italy - Portugal - USA ACGIH	Remark (ACGIH)		CNS impair	
USA NIOSH	NIOSH REL (TW	A) (mg/m³)	1050 mg/m <sup>3</sup> USA. NIOSH Recommended Exposure Limits	
USA NIOSH	NIOSH REL (TW	A) (ppm)	200 ppm USA. NIOSH Recommended Exposure Limits	
USA NIOSH	Remark (NIOSH)		Central Nervous System impairment	
USA OSHA	OSHA PEL (TWA	A) (mg/m³)	1050 mg/m <sup>3</sup> USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000	
USA OSHA	OSHA PEL (TWA	A) (ppm)	200 ppm USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000	
USA OSHA	OSHA PEL (Ceili	ng) (mg/m³)	1050 California permissible exposure limits for chemical contaminants.	

# Safety Data Sheet

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

N-NONANE UNLABELED			
	SHA PEL (Ceiling) (ppm)	200 ppm California permissible exposure limits for chemical contaminants.	
3.2. Exposure controls			
Personal protective equipment	: Protective clothing. Prot	tective goggles. Gloves. Self-contained breathing apparatus.	
Hand protection	: protective gloves.		
Eye protection	: Wear safety glasses wit	h side shields (or goggles) and a face shield.	
Skin and body protection	: Wear suitable protective	e clothing.	
Respiratory protection			
SECTION 9: Physical and c	chemical properties		
9.1. Information on basic ph	ysical and chemical properties		
The properties listed below are for the solvent, a			
Physical state	: Liquid		
Appearance	: Liquid.		
Aolecular mass	: 128.3 g/mol		
Colour	: Colourless.		
Ddour	: No data available		
Ddour threshold	: No data available		
H	: No data available		
Relative evaporation rate (butylacet	ate=1) : No data available		
lelting point	: No data available		
reezing point	: -53 °C (- 63 °F) - lit		
Boiling point	: 151 °C (304 °F) - lit		
lash point	: 31 °C (87.8 °F) - closed	cup	
Auto-ignition temperature	: 205 °C (401 °F)		
Decomposition temperature	: No data available		
Flammability (solid, gas)	: Flammable liquid and va	apour	
/apour pressure	: 12.4 hPa (9.3 mmHg) at	t 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 %		
og Pow	: 5.65		
.og Kow	: No data available		
/iscosity, kinematic	: No data available		
/iscosity, dynamic	: No data available		
xplosive properties	: No data available		
Dxidising properties	: No data available		
Explosive limits	: 0.87 - 2.9 % (V)		
0.2. Other information			
No additional information available			
SECTION 10: Stability and	reactivity		
0.1. Reactivity			
apors may form explosive mixture	with air.		

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

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

10.4. Conditions to avoid		
Open flame. Overheating. Direct sunlight. Heat. S	Sparks.	
10.5. Incompatible materials		
Strong oxidizing agents.		
10.6. Hazardous decomposition products		
May release flammable gases.		
SECTION 11: Toxicological informati	on	
11.1. Information on toxicological effects		
Acute toxicity	: Not classified	
4,4'-DDE UNLABELED 100 UG/ML IN NONAM	NE	
LC50 inhalation rat (mg/l)	23760 mg/m <sup>3</sup> 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)	23.760 mg/l/4h	
N-NONANE UNLABELED		
LC50 inhalation rat (mg/l)	23760 mg/m <sup>3</sup> 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.	
	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	
Carcinogenicity	: Not classified	
Reproductive toxicity	: Not available	
STOT-single exposure	: May cause drowsiness or dizziness.	
	-	
May cause drowsiness or dizziness.		
STOT-repeated exposure	: Not classified	
	No data available	
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	<ul> <li>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</li> </ul>	
Symptoms/injuries after inhalation	: 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.	
symptoms/injuries after ingestion : May be ratal if swallowed and enters alrways.		

	SECTION 12: Ecological information	
1	12.1. Toxicity	
	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

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

12.3. Bioaccumulative potential	
4,4'-DDE UNLABELED 100 UG/ML IN NONAM	
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 assessmer	nt
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 disposal. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
SECTION 13: Disposal consideration	S
13.1. Waste treatment methods	
Regional legislation (waste)	: Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.
Product/Packaging disposal recommendations:	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials	: Hazardous waste due to toxicity.
SECTION 14: Transport information	
In accordance with ADR / RID / IMDG / IATA / AD	
14.1. UN number	
UN-No.(DOT)	: 1920
DOT NA no.	UN1920
14.2. UN proper shipping name	- Marrier
Proper Shipping Name (DOT)	
Class (DOT) Hazard labels (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 : 3 - Flammable liquid
Packing group (DOT)	: III - Minor Danger
DOT Special Provisions (49 CFR 172.102)	<ul> <li>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.</li> <li>IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HD2, 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).</li> <li>T2 - 1.5 178.274(d)(2) Normal</li></ul>
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.
20/03/2018	EN (English) 7/10

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

Overland transport	
Packing group (ADR)	: 111
Class (ADR)	: 3 - Flammable liquid
Hazard identification number (Kemler No.)	: 30
Classification code (ADR)	: F1
Danger labels (ADR)	: 3 - Flammable liquids
	3
Orange plates	<b>30</b> <b>1920</b>
Tunnel restriction code (ADR)	: 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
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 Federal regulations	
4,4'-DDE UNLABELED 100 UG/ML IN NONANE	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard
N-NONANE UNLABELED	
Listed on the United States TSCA (Toxic Substar	nces 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

4,4'-DDE UNLABELED 100 UG/ML IN NONANE	
Listed on the Canadian DSL (Domestic Substances List)	

## Safety Data Sheet

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

#### N-NONANE UNLABELED

Listed on the Canadian DSL (Domestic Substances List)

#### 15.2.1. **National regulations**

#### N-NONANE UNLABELED

### 15.3. US State regulations

4,4'-DDE UNLABELED 100 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 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 LINI ABELED

U.S California -	U.S California -	U.S California -	U.S California -	No significant risk level	
Proposition 65 -	Proposition 65 -	Proposition 65 -	Proposition 65 -	(NSRL)	
Carcinogens List	Developmental Toxicity	Reproductive Toxicity -	Reproductive Toxicity -		
		Female	Male		
No	No	No	No		
N-NONANF 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 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) 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
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
R10	Flammable
R20	Harmful by inhalation
R36/38	Irritating to eyes and skin
R65	Harmful: may cause lung damage if swallowed
R67	Vapours may cause drowsiness and dizziness
Xi	Irritant
Xn	Harmful

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

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
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