

# TRIFLURALIN (DI-N-PROPYL-D14, 98%) 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: 30/11/2015

Revision date:

Version: 1.0

## **DLM-4479-S**

		bstance/mixture and of the company/undertaking
1.1. Product id	entifier	
Product form		: Mixtures
Product name.		: TRIFLURALIN (DI-N-PROPYL-D14, 98%) 100 UG/ML IN NONANE
Product code		: DLM-4479-S
1.2. Relevant id	entified uses of the sub	bstance or mixture and uses advised against
1.2.1. Relevant id	entified uses	
Main use category		: Professional use
1.2.2. Uses advis	ed against	
No additional informa	ion available	
1.3. Details of t	he supplier of the safety	y data sheet
Cambridge Isotope Li 50 Frontage Road Andover, MA 01810 USA USA: 1-800-322-117 cilsales@isotope.com	4 Int: 1-978-749-8000	
Emergenc	telephone number	
Emergency numbers:		
Chemtrec: 1-800-424 International: 1-703-7		
SECTION 2: Haz	ards identification	
2.1. Classificat	on of the substance or	mixture
Classification accor	ding to Regulation (EC)	No. 1272/2008 [CLP]
Flam. Liq. 3	H226	
Acute Tox. 4 (Inhalati	on: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 accor	ding to Directive 67/548	/EEC or 1999/45/EC
Xn; R20 Xn; R65 Xi; R38 R10		
Full text of R-phrases	see section 16	
Classification (CHS	(21)	
Classification (GHS Flam. Liq. 3 Acute Tox. 4 (Inhalati Skin Irrit. 2 Eye Irrit. 2A STOT SE 3	H226	

Adverse physicochemical, human health and environmental effects

H304

No additional information available

Asp. Tox. 1

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- P240 Ground/bond container and receiving equipment
- P241 Use explosion-proof electrical, lighting, ventilating equipment
- P261 Avoid breathing dust, fume, gas, mist, spray, vapors
- P264 Wash Both hands thoroughly after handling
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective clothing, protective gloves

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

Hazard pictograms (GHS-US)	
	GHS02 GHS08 GHS07
Signal word (GHS-US)	: Danger
Hazard statements (GHS-US)	<ul> <li>H226 - Flammable liquid and vapor</li> <li>H304 - May be fatal if swallowed and enters airways</li> <li>H315 - Causes skin irritation</li> <li>H319 - Causes serious eye irritation</li> <li>H332 - Harmful if inhaled</li> <li>H336 - May cause drowsiness or dizziness</li> </ul>
Precautionary statements (GHS-US)	<ul> <li>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 dust, fume, gas, mist, spray, vapors P264 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear 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 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 First aid measures 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 P370+P378 - In case of fire: Use Carbon dioxide., Dry chemical., Alcohol resistant foam, for</li> </ul>

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 Dispose in a safe manner in accordance with local/national 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	99.986	R10 Xn; R20 Xn; R65 R67 Xi; R38
TRIFLURALIN (DI-N-PROPYL-D14, 98%)	(CAS No) 347841-79-6 (EC no) 216-428-8 (Unlabeled) (EC index no) 609-046-00-1	0.014	T; R23 Carc.Cat.3; R40 R43 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	99.986	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
TRIFLURALIN (DI-N-PROPYL-D14, 98%)	(CAS No) 347841-79-6 (EC no) 216-428-8 (Unlabeled) (EC index no) 609-046-00-1	0.014	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 Skin Sens. 1, H317 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	99.986	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-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	3 · · · · · · · · · · · · · · · · · · ·
First-aid measures after inhalation	<ul> <li>Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.</li> </ul>
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: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Get medical advice/attention. Specific treatment (see First aid measures on this label).
4.2. Most important symptoms and e	ffects, 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.
4.3. Indication of any immediate med	lical attention and special treatment needed
No additional information available	

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9.1.       Extinguishing media         suitable extinguishing media       : Dry chemical. Water spray. Foam.         5.2.       Special hazards arising from the substance or mixture         Fire hazard       : Remmable liquid and vapor.         Synbolic hazards       : Wear a self contained breathing apparatus.         SECTION 6: Accidental release measures       : Wear a self contained breathing apparatus.         SECTION 6: Accidental release measures       : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.         6.1.       For non-emargency presonnel       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate vertifation. Remove all sources of ignition. Evacuate personnel to sale atreas. Beware of vapou accumulate in low areas.         6.1.1.       For emergency responders       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate vertifation. Remove all sources of ignition. Evacuate personnel to sale atreas. Beware of vapou accumulate in low areas.         6.1.       For emergency responders       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate vertifation. Evacuate personnel to sale atreas. Beware of vapou accumulate in low areas.         6.2.       For emergency responders       : Contains gailage, their collect with non-combustible absorbent material. Disposal should be in accordance with applicable Foderal. State and local regulations.         6.3.       Methods and material for co	SECTION 5: Firefighting measures	
5.2.       Special hazards arising from the substance or mixture         Fire hazard       : Rammable liquid and vapor.         Stpoision hazard       : Way form flammable/explosive vapor-air mixture.         5.3.       Advice for firefighters       : Wear a self contained breathing apparatus.         SECTION 6: Accidental release measures       : Remove lightion sources. Use special care to avoid static electric charges. No naked lights. No smoking.         6.1.       For non-emergency procedures       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate variation. Evacuate personnel to safe arise. Beware of vapout accumulating to form explosive concentrations. Vapours can accumulate in low areas.         6.1.1.       For non-emergency procedures       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate variations. Ensure adequate variations. Ensure adequate variations to servers and public waters.         6.1.1.       For emergency responders       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate variations. Interve all sources of apriton. Evacuate personnel to safe arise. Beware of vapout accumulating to form explosive concentrations. Vapours can accumulate in low areas.         6.2.       Environmental proceutions       : Protective equipment       : Avoid breathing dust, mist or spray.         6.3.       Methods and material for containment and cleaning up       : Containment       : Containment       : Containment       : Remore ealing up on the sections.		
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Fire hazard       : Flammable liquid and vapor.         Explosion hazard       : May form flammable/explosive vapor-air mixture.         5.3. Advice for firefighters       : Wear a self contained breathing apparatus.         SECTION 6: Accidental release measures       : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.         6.1. Personal precautions, protective equipment and emergency procedures       General measures         Emergency procedures       : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.         6.1.1. For non-emergency personnel       Emergency responders         Protective equipment       : Avoid breathing dust, mist or spray.         6.2. Environmental precautions       : Avoid breathing dust, mist or spray.         6.3. Methods and material for containment and cleaning up       For containment         For containment and cleaning up       For containment and cleaning up         For containment and cleaning up       For containment and cleaning up         For containment and public waters.       : 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 naked lights. No smoking. Take precautionary measures against state discharge. Use only non-sparking toucly and storage. Storage davoid state electrichy should be followed. Ground/bond container a		substance or mixture
Explosion hazard       : May form flammable/explosive vapor-air mixture.         5.3.       Advice for firefighters         Firefighting instructions       : Wear a self contained breathing apparatus.         SECTION 6: Accidential release measures       : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.         6.1.       For non-emergency personnel       Ensure and entergency procedures         6.1.1.       For non-emergency personnel       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate weinitation. Remove all sources of ignition. Evacuate personnel to self eares. Beware of vapou accumulating to form explosive concentrations. Vapours can accumulate in low areas.         6.1.2.       For emergency responders       : Avoid breathing dust, mist or spray.         8.2.       Environmental precautions       : Avoid breathing dust, mist or spray.         8.3.       Methods and material for containment and cleaning up       For containment         For containment       : Contain spillage, then collect with non-combustible absorbent material. Disposal should be in accordance with applicable Federal. State and local regulations.         SECTION 7: Handling and storage       : Handle empty containers with care because residual vapors ar flammable.         Precautions for safe handling       : No naked lights. No smoking Take precautions presonal protectrical quipment.         Store at noom temperature away from light and moisture.		
5.3.       Advice for firefighters         Firefying instructions       : Wear a self contained breathing apparatus.         SECTION 6: Accidental release measures       : Wear a self contained breathing apparatus.         Seneral measures       : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.         6.1.1. For non-emergency procedures       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate verifiation. Remove all sources of optimics. 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       : Avoid breathing dust, mist or spray.         6.2. Environmental precautions       : Avoid breathing dust, mist or spray.         6.2. Environmental precautions       : 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       : Avoid breathing up containers with care because residual vapors are flammable.         Precentions for safe handling       : Andle lights. No smoking. Take precautions or safe stard. Genarge. Use only non-sparing light. No smoking. Take precautions or safe stard.         7.1. Procentions or safe starding       : No naked lights. No smoking. Take precautionary measures against static discharge. Use only non-sparing light and moisture.         Storage conditions tor safe storago, including any incompatibilities       : P		
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SECTION 6: Accidental release measures         6.1.       Personal precautions, protective 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 personnel         Emergency procedures       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Excustabe personnel to safe areas. Beware of vapou accumulating to form explosive concentrations. Vapours can accumulate in low areas.         6.1.2.       For emergency responders         Protective equipment       : Avoid breathing dust, mist or spray.         6.2.       Environmental precautions         Prevent entry to severs and public waters.       : 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 harcards when processed         7.1.       Precautions for safe handling       : No naked lights. No smoking. Take precautionary measures against static discharge. Use only on-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust/mindigentily tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust/mindigentily tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust/mindigentily tools. Use only outdoors or in a well-ventilated area. Avoid breathing dustry misgravin.         7.2.		· Wear a calf contained bracthing apparatus
6.1.       Personal precautions, protective 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 personnel       : 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       Protective equipment       : Avoid breathing dust, mist or spray.         6.2.       Environmental precautions       Protective equipment       : Contain spillage, then collect with non-combustible absorbent material. Disposal should be in accordance with applicable Federal, State and local regulations.         6.3.       Methods and material for containment and cleaning up         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 hardsrads 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-parking tools. Use only outdoors or in a well-venitlated area. Avoid breathing dust/medysimistivaparosyray.         Hyelene measures		. Wear a sen contained breathing apparatus.
General measures       : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.         6.1.1. For non-emergency personnel       : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of lightion. 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       : Avoid breathing dust, mist or spray.         6.2. Environmental precautions       : Avoid breathing dust, mist or spray.         6.3. Methods and material for containment and cleaning up       : 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       : Andle empty containers with care because residual vapors are flammable.         Precautions for safe handling       : Mon aked lights. No smoking. Take precautionary masures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust/ume/gas/mis/vapors/spray.         Hygiene measures       : Yoo naked lights. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust/ume/gas/mis/vapors/spray.         Hygiene measures       : Yoo park dights. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust/ume/gas/mis/vapors/spray. <t< td=""><td></td><td></td></t<>		
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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 vapou accumulating to form explosive concentrations. Vapours can accumulate in low areas.         6.1.2. For emergency responders       Protective equipment       : Avoid breathing dust, mist or spray.         6.2. Environmental procentions       Prevent entry to sewers and public waters.       6.3. Methods and material for containment and cleaning up         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 storage         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. Avoid breathing dust/mergas/mist/vapors/spray.         Hygiene measures       : Wash thoroughly after handling.         7.2. Conditions for safe storage, including any incompatibilities         Technical measures       : Store at room temperature away from light and moisture.         Incompatible materials       : Heat sourc	General measures	
ventilation. Reimove 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         Protective equipment       : Avoid breathing dust, mist or spray.         6.2. Environmental precautions         Prevent entry to sewers and public waters.         6.3. Methods and material for containment and cleaning up         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 storage       .         7.1. 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. Avoid breathing dust/wapors/spray.         Hygiene measures       : Wash thoroughly after handling.         7.2. Conditions for safe storage, including any incompatibilities	6.1.1. For non-emergency personnel	
Protective equipment       : Avoid breathing dust, mist or spray.         6.2. Environmental precautions         Prevent entry to severs and public waters.         6.3. Methods and material for containment and cleaning up         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 storage         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 uncorresparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/misit/vapors/spray.         Hygiene measures       : Wash thoroughly after handling.         7.2. Conditions for safe storage, including any incompatibilities       Technical measures       : Storage rounding 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 <td>Emergency procedures</td> <td>ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapou</td>	Emergency procedures	ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapou
6.2. Environmental precautions         Prevent entry to sewers and public waters.         6.3. Methods and material for containment and cleaning up         For containment       : Contain spillage, then collect with non-combustible absorbent material. Disposal should be in accord applicable Federal, State and local regulations.         6.4. Reference to other sections         No additional information available         SECTION 7: Handling and storage         7.1. Precautions for safe handling         Additional hazards when processed         Precautions for safe handling         Additional hazards when processed         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. Avoid breathing dust/fume/gas/mist/vapors/spray.         Hygiene measures       : Wash thoroughly after handling.         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         SECTION 3: Exposure controls/personal protection       8.1. Control parameter	6.1.2. For emergency responders	
Prevent entry to sewers and public waters.         6.3.       Methods and material for containment and cleaning up         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 storage         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. Avoid breathing dust/fume/gas/mist/vapors/spray.         Hygiene measures       : Wash thoroughly after handling.         7.2.       Conditions for safe storage, including any incompatibilities         Technical measures       : Store at room temperature away from light and moisture.         Incompatible materials       : Store at room temperature away from light and moisture.         No additional information available       SECTION 8: Exposure controls/personal protection         8.1.       Control parameters         Control parameters         Store at room temperature away from light and moisture.         Incompatible materials <td>Protective equipment</td> <td>: Avoid breathing dust, mist or spray.</td>	Protective equipment	: Avoid breathing dust, mist or spray.
6.3. Methods and material for containment and cleaning up         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 storage       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. Avoid breathing dust/fume/gas/mist/vapors/spray.         Hygiene measures       : Wash thoroughly after handling.         7.2. Conditions for safe storage, including any incompatibilities         Technical measures       : Store at room temperature away from light and moisture.         Incompatible materials       : Heat sources.         7.3. Specific end use(s)       No additional information available         SECTION 8: Exposure controls/personal protection       8.1.         8.1. Control parameters       Itel + tool optiment.         7.3. Specific end use(s)       No Outgould information available         SECTION 8: Exposure controls/personal protection       8.1.         8.1. Control parameters       Itel + Portugal - USA ACGIH ACGIH TWA (	6.2. Environmental precautions	
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Italy - Portugal - USA ACGIH         ACGIH TWA (ppm)         200.00000000 ppm Central Nervous System		(ppm) 200.000000000 ppm Central Nervous System
Italy - Portugal - USA ACGIH         ACGIH TWA (ppm)         200.00000000 ppm Central Nervous System	· · · · ·	
	N-NONANE UNLABELED (111-84-2)	
8.2. Exposure controls	Italy - Portugal - USA ACGIH ACGIH TWA	

Personal protective equipment

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



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Skin and body protection Respiratory protection

- : Wear suitable protective clothing.
  - : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

## SECTION 9: Physical and chemical properties

9.1. Information on basic physical an	d chemical properties
The properties listed below are for the solvent, the main con	nponent 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	: -53 °C (- 63 °F) - lit
Freezing point	: No data available
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

SECT	ION 10: Stability and reactivity		
10.1.	Reactivity		
No addi	tional information available		
10.2.	Chemical stability		
See sto	rage and expiration date on CoA.		
10.3.	Possibility of hazardous reactions		
No addi	tional information available		
10.4.	Conditions to avoid		
Open fl	ame. Overheating. Direct sunlight. Heat. Sp	parks.	
10.5.	0.5. Incompatible materials		
No addi	No additional information available		
10.6.	6. Hazardous decomposition products		
May rel	May release flammable gases.		
SECT	SECTION 11: Toxicological information		
11.1.	1.1. Information on toxicological effects		
Acute to	Acute toxicity : Harmful if inhaled.		
TRIFL	URALIN (DI-N-PROPYL-D14, 98%) 100 U	UG/ML IN NONANE	
ATE (	dust, mist)	1.500 mg/l/4h	

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N-NONANE UNLABELED (111-84-2)			
LC50 inhalation rat (mg/l)	23760 mg/m <sup>3</sup> male - 4 h		
LC50 inhalation rat (ppm)	3200 ppm/4h		
ATE (gases)	3200.000 ppmV/4h		
ATE (vapors)	11.000 mg/l/4h		
ATE (dust, mist)	23.760 mg/l/4h		
TRIFLURALIN (DI-N-PROPYL-D14, 98%) (347	841-79-6)		
LD50 oral rat	1930 mg/kg		
LD50 dermal rat	> 5000 mg/kg		
LC50 inhalation rat (mg/l)	2800 mg/m³ 1 h		
ATE (oral)	1930.000 mg/kg body weight		
ATE (gases)	700.000 ppmV/4h		
ATE (vapors)	2.800 mg/l/4h		
ATE (dust, mist)	2.800 mg/l/4h		
Skin corrosion/irritation	: Causes skin irritation.		
Serious eye damage/irritation	: Causes serious eye irritation.		
Respiratory or skin sensitization	: Not classified		
Germ cell mutagenicity	: Not classified		
Carcinogenicity	: Not classified		
Reproductive toxicity	: Not classified		
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.		
Specific target organ toxicity (repeated exposure)	: Not classified		
Aspiration hazard	: May be fatal if swallowed and enters airways.		
Potential Adverse human health effects and symptoms	: 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.		

## **SECTION 12: Ecological information**

## 12.1. Toxicity

TRIFLURALIN (DI-N-PROPYL-D14, 98%) (347841-79-6)		
LC50 fish 1	0.66 mg/l Cyprinus carpio (Carp) - 96 h	
EC50 Daphnia 1	0.193 mg/l Daphnia magna (Water flea) - 48 h	
ErC50 (algae)	0.3 mg/l Pseudokirchneriella subcapitata - 96 h	
LOEC (chronic)	0.084 mg/l Cyprinodon variegatus (sheepshead minnow) - 10 d	

#### Persistence and degradability 12.2.

Persistence and degradability	Not available.	
2.3. Bioaccumulative potential		
TRIFLURALIN (DI-N-PROPYL-D14, 98	) 100 UG/ML IN NONANE	
Log Pow	5.65	
N-NONANE UNLABELED (111-84-2)		
Log Pow	5.65	
Bioaccumulative potential	Indication of bioaccumulation.	
12.4. Mobility in soil		
TRIFLURALIN (DI-N-PROPYL-D14, 98	) (347841-79-6)	
Ecology - soil	Not available.	

#### 1 Results of PBT and vPvB assessmen

No additional information available

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12.6. Other adverse effects	
No additional information available	
SECTION 13: Disposal consideratio	ns
13.1. Waste treatment methods	
Regional legislation (waste)	: Waste materials should be disposed of under conditions which meet Federal, State, and Loca environmental control regulations.
SECTION 14: Transport information	
n accordance with ADR / RID / ADNR / IMDG /	ICAO / IATA
14.1. UN number	
JN-No.(DOT)	: 1920
DOT NA no.	UN1920
I4.2. UN proper shipping name	
DOT Proper Shipping Name	: Nonanes
Department of Transportation (DOT) Hazard Classes	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT)	: 3 - Flammable liquid
	3
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, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquid with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 5 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Tab 2 for UN2672).</li> <li>T2 - 1.5 178.274(d)(2) Normal</li></ul>
	during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) DOT Packaging Non Bulk (49 CFR 173.xxx)	: 150 : 203
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 242
	. 242
14.3. Additional information	
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
Drange plates	30 1920
Funnel restriction code	: D/E
imited quantities (ADR)	5L
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EAC		: 3Y
Excepte	ed quantities (ADR)	: E1
Transp	ort 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 tran	isport	
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.	6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	
Not app		

15.1. US Federal regulations					
TRIFLURALIN (DI-N-PROPYL-D14, 98%) 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				

#### 15.2. International regulations

CANADA	
TRIFLURALIN (DI-N-PROPYL-D14, 98%) 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

TRIFLURALIN (DI-N-PROPYL-D14, 98%) 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

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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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 unlobaled compound

	unlabeled compound, unless specifically indicated otherwise. Health and safety data for
	compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.
	corresponding unabeled compound.
II text of R-, H- and EUH-phrases::	
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
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
Skin Sens. 1	Skin sensitization Category 1
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
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H331	Toxic if inhaled
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
R23	Toxic by inhalation
R38	Irritating to skin
R40	Limited evidence of a carcinogenic effect
R43	May cause sensitization by skin contact
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
Т	Toxic
Xi	Irritant

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt 3 medical attention is given. NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all 0 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 Physical : 0 Minimal Hazard

**CIL Mixture SDS** 

Xn

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

Harmful