

# TRANS-NONACHLOR UNLABELED 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: 19/01/2015 Revision date: : Version: 1.0

### ULM-7229-S

| SECTION 1: Identification of th  | ne substance/mixture and of the company/undertaking |  |
|--|---|--|
| 1.1. Product identifier  |   |  |
| Product form   | : Mixtures  |  |
| Product name.  | : TRANS-NONACHLOR UNLABELED 100 UG/ML IN NONANE     |  |
| Product code   | : ULM-7229-S  |  |
| 1.2. Relevant identified uses of t   | he substance or mixture and uses advised against    |  |
| 1.2.1. Relevant identified uses  |   |  |
| Industrial/Professional use spec   | : For professional use only.<br>Industrial.         |  |
| 1.2.2. Uses advised against  |   |  |
| No additional information available  |   |  |
| 1.3. Details of the supplier of the  | safety data sheet                                   |  |
| Cambridge Isotope Laboratories, Inc.<br>50 Frontage Road<br>Andover, MA 01810<br>USA<br>USA: 1-800-322-1174 Int: 1-978-749-8000<br><u>cilsales@isotope.com</u> www.isotope.com |   |  |
| Emergency telephone numb   | er  |  |
| Emergency numbers:   |   |  |
| Chemtrec: 1-800-424-9300 (24 hours)<br>International: 1-202-483-7616 (24 hours)  |   |  |
| <b>SECTION 2: Hazards identifica</b>   | tion  |  |
| 2.1. Classification of the substan   | ce or mixture                                       |  |
| Classification according to Regulation (EC) No. 1272/2008 [CLP]  |   |  |
| Flam. Liq. 3 H226  | 3   |  |
| Acute Tox. 4 (Inhalation:dust,mist) H332   | 2   |  |
| Skin Irrit. 2 H315   |   |  |
| Eye Irrit. 2 H319  |   |  |
| STOT SE 3 H336   |   |  |
| Asp. Tox. 1 H304   | ł   |  |
| Full text of H-phrases: see section 16   |   |  |

### Classification according to Directive 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 |
|-------------------------------------|------|
| Acute Tox. 4 (Inhalation:dust,mist) | H332 |
| Skin Irrit. 2                       | H315 |
| Eye Irrit. 2A                       | H319 |
| STOT SE 3                           | H336 |
| Asp. Tox. 1                         | H304 |

### Adverse physicochemical, human health and environmental effects

Central Nervous System.

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### 2.2. Label elements

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

Hazard pictograms (CLP)



### Signal word (CLP) Hazardous ingredients Hazard statements (CLP)

Precautionary statements (CLP)

### : Danger

### : N-NONANE UNLABELED

- : H226 Flammable liquid and vapor
- 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
- : P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
  - P233 Keep container tightly closed
  - P240 Ground/bond container and receiving equipment
  - P241 Use explosion-proof electrical, lighting, ventilating equipment
  - P261 Avoid breathing 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) |
|-------------------|----------|
|-------------------|----------|



### GHS07

### : Danger

GHS02

- : H226 Flammable liquid and vapor
- 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
- : P210 Keep away from heat, hot surfaces, open flames, sparks. No smoking

GHS08

- 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 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 Carbon dioxide., Dry chemical., Alcohol resistant foam., 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

HS-US) : H226 - Flar H304 - May

Precautionary statements (GHS-US)

Signal word (GHS-US) Hazard statements (GHS-US)

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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

| .2. Mixtures              |  |         |   |
|---------------------------|--|---------|---|
| Name                      | Product identifier                     | %       | Classification according to<br>Directive 67/548/EEC   |
| N-NONANE UNLABELED        | (CAS No) 111-84-2<br>(EC no) 203-913-4 | 99.9861 | R10<br>Xn; R20<br>Xn; R65<br>R67  |
| TRANS-NONACHLOR UNLABELED | (CAS No) 39765-80-5 (unlabeled)        | 0.0139  | Xn; R22<br>N; R50/53  |
| Name                      | Product identifier                     | %       | Classification according to<br>Regulation (EC) No.<br>1272/2008 [CLP]   |
| N-NONANE UNLABELED        | (CAS No) 111-84-2<br>(EC no) 203-913-4 | 99.9861 | Flam. Liq. 3, H226<br>Acute Tox. 4 (Inhalation), H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H336<br>Asp. Tox. 1, H304  |
| TRANS-NONACHLOR UNLABELED | (CAS No) 39765-80-5 (unlabeled)        | 0.0139  | Acute Tox. 4 (Oral), H302<br>Aquatic Acute 1, H400 (M=10)<br>Aquatic Chronic 1, H410  |
| Name                      | Product identifier                     | %       | Classification (GHS-US)   |
| N-NONANE UNLABELED        | (CAS No) 111-84-2                      | 99.9861 | Flam. Liq. 3, H226<br>Acute Tox. 4 (Inhalation), H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>STOT SE 3, H336<br>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             | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).   |
| First-aid measures after inhalation    | <ul> <li>Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON<br/>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 Gently wash with plenty of soap and water. Get medical advice/attention. Specific treatment (se Hazard pictograms (CLP) on this label). |
| First-aid measures after eye contact   | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Immediately flush eyes thoroughly with water for a least 15 minutes. Get medical advice/attention.   |
| First-aid measures after ingestion     | : Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.  |
| 4.2. Most important symptoms and effe  | cts, both acute and delayed   |
| Symptoms/injuries after inhalation     | <ul> <li>Danger of serious damage to health by prolonged exposure through inhalation. Harmful if<br/>inhaled. May cause drowsiness or dizziness.</li> </ul>   |
| Symptoms/injuries after skin contact   | : Causes skin irritation.   |
| Symptoms/injuries after eye contact    | : Causes serious eye irritation.  |
| Symptoms/injuries after ingestion      | : May be fatal if swallowed and enters airways.   |
| 4.3. Indication of any immediate medic | al attention and special treatment needed   |

No additional information available

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| <b>SECTION 5: Firefighting measures</b>                           |   |  |
|---|---|--|
| 5.1. Extinguishing media  |   |  |
| suitable extinguishing media                                      | : For small fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water. Foam. Dry powder. Carbon dioxide. Water spray. Sand.   |  |
| Unsuitable extinguishing media                                    | : Do not use a heavy water stream.  |  |
| 5.2. Special hazards arising from the                             | 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. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.  |  |
| Protection during firefighting                                    | : Do not enter fire area without proper protective equipment, including respiratory protection.   |  |
| SECTION 6: Accidental release me                                  | easures   |  |
|   | 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. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Evacuate unnecessary personnel.  |  |
| 6.1.2. For emergency responders                                   |   |  |
| Protective equipment  | : Avoid breathing dust, mist or spray. Equip cleanup crew with proper protection.   |  |
| Emergency procedures  | : Ventilate area.   |  |
| 6.2. Environmental precautions                                    |   |  |
| Prevent entry to sewers and public waters. No                     | tify authorities if liquid enters sewers or public waters.  |  |
| 6.3. Methods and material for contain                             | ment 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.  |  |
| Methods for cleaning up   | : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.  |  |
| 6.4. Reference to other sections                                  |   |  |
| See Heading 8. Exposure controls and persor                       | nal protection.   |  |
| <b>SECTION 7: Handling and storage</b>                            |   |  |
| 7.1. Precautions for safe handling                                |   |  |
| Additional hazards when processed                                 | : Handle empty containers with care because residual vapors are flammable.  |  |
| Precautions for safe handling                                     | : In order to avoid inhalation of mist/vapor, all spraying must be done wearing adequate respirator<br>Provide good ventilation in process area to prevent formation of vapor. No naked lights. No<br>smoking. Take precautionary measures against static discharge. Use only non-sparking tools.<br>Use only outdoors or in a well-ventilated area. Wash hands and other exposed areas with mild<br>soap and water before eat, drink or smoke and when leaving work. Avoid breathing dust, mist or<br>spray. |  |
| Hygiene measures  | : Wash Both hands 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 refrigerated (-5 C to 5 C). Protect from light.   |  |
| Incompatible products   | : Strong bases, strong acids.   |  |
| Incompatible materials  | : Heat sources. Sources of ignition. Direct sunlight.   |  |
| 7.3. Specific end use(s)  |   |  |
| No additional information available                               |   |  |

No additional information available

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| according to Regulation (EC) No. 453/2010 a   | and according to Federal Register / Vol. 77, No. 58 / N           | Ionday, March 26, 2012 / Rules and Regulations                                |  |  |
|---|---|---|--|--|
| <b>SECTION 8: Exposure contr</b>  | ols/personal protection   |   |  |  |
| 8.1. Control parameters   |   |   |  |  |
|   | D 100 LIG/ML IN NONANE  |   |  |  |
| TRANS-NONACHLOR UNLABELED 100 UG/ML IN NONANE         Italy - Portugal - USA ACGIH       ACGIH TWA (ppm)       200.000000000 ppm Central Nervous System impairment. |   |   |  |  |
| N-NONANE UNLABELED (111-84-   | -2)   |   |  |  |
| Italy - Portugal - USA ACGIH       ACGIH TWA (ppm)       200.000000000 ppm Central Nervous System impairment.   |   |   |  |  |
| TRANS-NONACHLOR UNLABELE  | ED 100 UG/ML IN NONANE  |   |  |  |
| DNEL/DMEL (Workers)   |   |   |  |  |
| Acute - systemic effects, dermal  | >= mg/kg bodyweight/day   |   |  |  |
| 8.2. Exposure controls  |   |   |  |  |
| Personal protective equipment   | Protective clothing. Protective ge<br>unnecessary exposure.       | oggles. Self-contained breathing apparatus. Gloves. Avoid all                 |  |  |
| Hand protection   |   |   |  |  |
| Hand protection   | : Wear protective gloves.   | hields (or googles) and a face shield. Chemical googles as affet              |  |  |
| Eye protection  | glasses.  | hields (or goggles) and a face shield. Chemical goggles or safety             |  |  |
| Skin and body protection  | : Wear suitable protective clothing                               | g.  |  |  |
| Respiratory protection  | : Where exposure through inhalat<br>recommended. Wear respiratory | tion may occur from use, respiratory protection equipment is<br>y protection. |  |  |
| Other information   | : When using, do not eat, drink or                                | r smoke.  |  |  |
| <b>SECTION 9: Physical and ch</b>   | nemical properties  |   |  |  |
|   | sical and chemical properties                                     |   |  |  |
| The properties listed below are for the solvent, the  | e main component of this mixture.                                 |   |  |  |
| Physical state  | : Liquid  |   |  |  |
| Appearance  | : Liquid.   |   |  |  |
| Color   | : No data available.  | : No data available.  |  |  |
| Odor  | : characteristic.   |   |  |  |
| Odor threshold  | : No data available   | : No data available   |  |  |
| рН  | : No data available   |   |  |  |
| Relative evaporation rate (butyl aceta  | ate=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                                  | C (99.9 °F)   |  |  |
| Relative vapor density at 20 °C   |   |   |  |  |
| Relative density  |   |   |  |  |
| Solubility  |   |   |  |  |
| Log Pow : 5.65  |   |   |  |  |
| Log Kow   |   |   |  |  |
| Viscosity, kinematic  | -   |   |  |  |
| 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

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| according to Regulation (EC) No. 453/2010 and according                   | g to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  |  |
|---|---|--|
| SECTION 10: Stability and reactivity                                      |   |  |
| 0.1. 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                                  |   |  |
| Not established.  |   |  |
| 10.4. Conditions to avoid   |   |  |
| Open flame. Overheating. Direct sunlight. Heat.                           | Sparks. Extremely high or low temperatures.   |  |
| 10.5. Incompatible materials  |   |  |
| Strong oxidizing agents. strong acids. Strong bas                         | ses.  |  |
| 10.6. Hazardous decomposition products                                    |   |  |
| May release flammable gases. fume. Carbon mo                              | noxide. Carbon dioxide.   |  |
| SECTION 11: Toxicological informat  | ion   |  |
| 11.1. Information on toxicological effects                                |   |  |
| Acute toxicity  | : Harmful if inhaled.   |  |
| TRANS-NONACHLOR UNLABELED 100 UG/   | ML IN NONANE  |  |
| ATE (dust, mist)  | 1.500 mg/l/4h   |  |
| TRANS-NONACHLOR UNLABELED (39765-8  | 30-5 (unlabeled))   |  |
| LD50 oral rat   | 500 mg/kg   |  |
| ATE (oral)  | 500.000 mg/kg body weight   |  |
| N-NONANE UNLABELED (111-84-2)   |   |  |
| LC50 inhalation rat (ppm)   | 3200 ppm/4h   |  |
| ATE (dust, mist)  | 1.500 mg/l/4h   |  |
| Skin corrosion/irritation   | : Causes skin irritation.   |  |
|   | Causes skin irritation  |  |
| Serious eye damage/irritation   | : Causes serious eye irritation.  |  |
| Respiratory or skin sensitization   | : Not classified  |  |
| Germ cell mutagenicity<br>Carcinogenicity                                 | : Not classified<br>: Not classified  |  |
| • •   |   |  |
| Reproductive toxicity<br>Specific target organ toxicity (single exposure) | : Not classified<br>: May cause drowsiness or dizziness.  |  |
| Specific larger 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. Based on available data, the classification criteria are not met.   |  |
| Symptoms/injuries after inhalation  | : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness. |  |
| Symptoms/injuries after skin contact                                      | : Causes skin irritation.   |  |
| Symptoms/injuries after eye contact                                       | : Causes serious eye irritation.  |  |
| Symptoms/injuries after ingestion   | : May be fatal if swallowed and enters airways.   |  |
|   |   |  |

| SECTION 12: Ecological information                 |  |  |
|--|--|--|
| 12.1. Toxicity                                     |  |  |
| TRANS-NONACHLOR UNLABELED (39765-80-5 (unlabeled)) |  |  |
| EC50 Daphnia 1                                     | 0.022 mg/l Daphnia pulex (Water flea) - 48 h |  |
|  |  |  |
| 2.2. Persistence and degradability                 |  |  |
| TRANS-NONACHLOR UNLABELED 100 UG/ML IN NONANE      |  |  |
| Persistence and degradability Not established.     |  |  |

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| according to Regulation (EC) No. 453/2010 and according | according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations |  |  |
|---|--|--|--|
| TRANS-NONACHLOR UNLABELED (39765-80-5 (unlabeled))      |  |  |  |
| Persistence and degradability                           | Not available.   |  |  |
| N-NONANE UNLABELED (111-84-2)                           |  |  |  |
| Persistence and degradability                           | Not available.   |  |  |
| 12.3. Bioaccumulative potential                         |  |  |  |
| TRANS-NONACHLOR UNLABELED 100 UG/                       | ML IN NONANE   |  |  |
| Log Pow   | 5.65   |  |  |
| Bioaccumulative potential                               | Not established.   |  |  |
| TRANS-NONACHLOR UNLABELED (39765-8                      | 0-5 (unlabeled))   |  |  |
| Log Pow   | 6.35   |  |  |
| Bioaccumulative potential                               | Not available.   |  |  |
| N-NONANE UNLABELED (111-84-2)                           |  |  |  |
| Log Pow   | 5.65   |  |  |
| Bioaccumulative potential                               | Indication of bioaccumulation.   |  |  |
| 12.4. Mobility in soil                                  |  |  |  |
| TRANS-NONACHLOR UNLABELED (39765-8                      | 0-5 (unlabeled))   |  |  |
| Ecology - soil  | Not available.   |  |  |
| N-NONANE UNLABELED (111-84-2)                           |  |  |  |
| Ecology - soil  | Not available.   |  |  |
| 12.5. Results of PBT and vPvB assessme                  |  |  |  |
| No additional information available                     | II.  |  |  |
|   |  |  |  |
| 12.6. Other adverse effects Other information           | . Ausid velaces to the environment   |  |  |
|   | : Avoid release to the environment.  |  |  |
| SECTION 13: Disposal consideration                      | IS   |  |  |
| 13.1. Waste treatment methods                           |  |  |  |
| Waste disposal recommendations                          | : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to Comply with applicable regulations. |  |  |
| Additional information                                  | : Handle empty containers with care because residual vapors are flammable.   |  |  |
| Ecology - waste materials                               | : Hazardous waste due to toxicity. Avoid release to the environment.   |  |  |
| <b>SECTION 14: Transport information</b>                |  |  |  |
| In accordance with ADR / RID / ADNR / IMDG / I          | CAO / 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<br>Classes    | : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120  |  |  |
| Hazard labels (DOT)                                     | : 3 - Flammable liquid   |  |  |
|   |  |  |  |
| Packing group (DOT)                                     | : III - Minor Danger   |  |  |

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| DOT Special Provisions (49 CFR 172.102)                          | : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the  |
|--|---|
|  | bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.   |
|  | IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 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). |
|  | T2 - 1.5 178.274(d)(2) Normal   |
| DOT Packaging Exceptions (49 CFR 173.xxx)                        | : 150   |
| DOT Packaging Non Bulk (49 CFR 173.xxx)                          | : 203   |
| DOT Packaging Bulk (49 CFR 173.xxx)                              | : 242   |
| 14.3. Additional information                                     |   |
| Other information  | : No supplementary information available.   |
| Overland transport   |   |
| Packing group (ADR)  | : III   |
| Class (ADR)  | : 3 - Flammable liquid  |
| Hazard identification number (Kemler No.)                        | : 30  |
| Classification code (ADR)  | : F1  |
| Orange plates  | 30<br>1920  |
| Tunnel restriction code  | : D/E   |
| imited 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)     | : 220 L   |
|  |   |

### 14.4. Environmental hazards

| Other | information                      | : No supplementary information available. |
|-------|----------------------------------|---|
| 14.5. | Special precautions for user     |   |
| 14.6. | Transport in bulk according to A | nnex II of MARPOL 73/78 and the IBC Code  |
|       |                                  |   |

Not applicable

| SECTION 15: Regulatory information            |  |  |
|---|--|--|
| 15.1. US Federal regulations                  |  |  |
| TRANS-NONACHLOR UNLABELED 100 UG/ML IN NONANE |  |  |
| SARA Section 311/312 Hazard Classes           | Immediate (acute) health hazard<br>Delayed (chronic) health hazard |  |
| N-NONANE UNLABELED (111-84-2)                 |  |  |
| SARA Section 311/312 Hazard Classes           | Fire hazard<br>Immediate (acute) health hazard                     |  |

### 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

### 15.2. International regulations

### CANADA

### TRANS-NONACHLOR UNLABELED 100 UG/ML IN NONANE

Not listed on the Canadian DSL (Domestic Substances List) inventory.

### 15.2.1. National regulations

No additional information available

| 15.3. US State regulations                      |  |  |
|---|--|--|
| TRANS-NONACHLOR UNLABELED 100 UG/ML IN NONANE() |  |  |
| State or local regulations                      | U.S Pennsylvania - RTK (Right to Know) List<br>U.S New Jersey - Right to Know Hazardous Substance List<br>WARNING! This product contains a chemical known by the state of California to cause<br>birth defects or 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.

### SECTION 16: Other information

Other information

: None.

| 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  |
| 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   |
| 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  |
| 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   |
| Ν                                   | Dangerous for the environment   |
| Xn                                  | Harmful   |

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

| 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   |
| 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