



TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE

Safety Data Sheet

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

Date of issue: 23/02/2011

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Version: 4.0

CLM-129

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

1.1. Product identifier

Product form	: Substance
Substance name	: TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE
EC Index No	: 602-027-00-9 (Unlabeled)
EC No	: 201-167-4 (Unlabeled)
CAS No	: 79-01-6 (Unlabeled)
Product code	: CLM-129
Formula	: Cl2*C=*CHCl
Synonyms	: TCE / Trichloroethene

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category	: Professional use
Industrial/Professional use spec	: For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810
USA

USA: 1-800-322-1174 Int: 1-978-749-8000
cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)
International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Irrit. 2	H315
Eye Irrit. 2	H319
Muta. 2	H341
Carc. 1A	H350
STOT SE 3	H336
Aquatic Chronic 3	H412

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

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

Xi; R36/38
Carc.Cat.1; R45
Carc.Cat.2; R49
R52/53
Muta.Cat.3; R68
R67

Full text of R-phrases: see section 16

GHS-US classification

Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Muta. 2	H341
Carc. 1A	H350
STOT SE 3	H336

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Aquatic Chronic 3 H412

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Liver, Central nervous system, Heart, Lungs.

2.2. Label elements

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

Hazard pictograms (CLP)



GHS08

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H315 - Causes skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H341 - Suspected of causing genetic defects (in contact with skin, if inhaled, if swallowed)
H350 - May cause cancer (in contact with skin, if inhaled, if swallowed)
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP)

: P261 - Avoid breathing dust, fume, gas, mist, spray, vapours
P264 - Wash hands, forearms and face thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear protective clothing, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of water
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

GHS-US labelling

Hazard pictograms (GHS-US)



GHS08

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H315 - Causes skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H341 - Suspected of causing genetic defects (Dermal, Inhalation, oral)
H350 - May cause cancer (Dermal, Inhalation, oral)
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P261 - Avoid breathing dust, fume, gas, mist, vapours, spray
P264 - Wash Both hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear protective clothing, protective gloves
P302+P352 - If on skin: Wash with plenty of water/...
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P312 - Call a poison center/doctor/... if you feel unwell
P321 - Specific treatment (see Hazard pictograms (CLP) on this label)
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
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container to Comply with applicable regulations

2.3. Other hazards

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Directive 67/548/EEC
TRICHLOROETHYLENE (13C2, 98%)	(CAS No) 79-01-6 (Unlabeled) (EC No) 201-167-4 (Unlabeled) (EC Index No) 602-027-00-9 (Unlabeled)	99.9	Xi; R36/38 Carc.Cat.1; R45 Carc.Cat.2; R49 R52/53 Muta.Cat.3; R68 R67
DIISOPROPYLAMINE	(CAS No) 108-18-9 (Unlabeled) (EC No) 203-558-5 (Unlabeled) (EC Index No) 612-129-00-5 (Unlabeled)	0.1	F; R11 Xn; R20/22 C; R34

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
TRICHLOROETHYLENE (13C2, 98%)	(CAS No) 79-01-6 (Unlabeled) (EC No) 201-167-4 (Unlabeled) (EC Index No) 602-027-00-9 (Unlabeled)	99.9	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 2, H341 Carc. 1A, H350 STOT SE 3, H336 Aquatic Chronic 3, H412
DIISOPROPYLAMINE	(CAS No) 108-18-9 (Unlabeled) (EC No) 203-558-5 (Unlabeled) (EC Index No) 612-129-00-5 (Unlabeled)	0.1	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation), H331 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314

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

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
First-aid measures after inhalation	: If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	: Wash with soap and plenty of water. Consult a physician.
First-aid measures after eye contact	: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Symptoms/injuries after inhalation	: May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.
Symptoms/injuries after skin contact	: May be harmful if absorbed through the skin. Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Reactivity : Not available.

5.3. Advice for firefighters

Firefighting instructions	: Wear self contained breathing apparatus for fire fighting if necessary.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe area.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment : Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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 : Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep container tightly closed in a cool, dry and well-ventilated place.

Storage conditions : Store refrigerated (-5 C to 5 C). Protect from light.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE (79-01-6 (Unlabeled))		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	10.00000000 ppm Central Nervous System impairment. Cognitive decrement. Renal toxicity. Substances for which there is a Biological Exposure Index or Incices (see BEI section). Suspected human carcinogen. USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	25 ppm Central Nervous System impairment. Cognitive decrement. Renal toxicity. Substances for which there is a Biological Exposure Index or Incices (see BEI section). Suspected human carcinogen. Potential Occupational Carcinogen. See Appendix C. See Appendix A. See Table Z-2. USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Trichloroethylene CAS No. 79-01-6 15 mg/l Urine Remarks: End of shift at end of workweek. ACGIH-Biological Exposure Indices (BEI); Trichloroethylene 0.5 mg/l In blood Remarks: End of shift at end of workweek. ACGIH- Biological Exposure Indices (BEI); Trichloroethylene In Blood Remarks: End of shift at end of workweek. ACGIH- Biological Exposure Indices (BEI); Trichloroethylene In end-exhaled air Remarks: End of shift at end of workweek. ACGIH- Biological Exposure Indices (BEI).
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm Z37.1-1967. USA. Occupational Exposure Limits (OSHA) - Table Z-2.
USA OSHA	OSHA PEL (STEL) (mg/m ³)	537 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)
USA OSHA	OSHA PEL (STEL) (ppm)	100 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107)
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	135 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)

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USA OSHA	OSHA PEL (Ceiling) (ppm)	200 ppm Z37.1-1967. USA. Occupational Exposure Limits (OSHA) - Table Z-2.
USA OSHA	Remark (OSHA)	C 300 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107), PEL 25 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107).
DIISOPROPYLAMINE (108-18-9 (Unlabeled))		
Belgium	Limit value (mg/m ³)	21 mg/m ³ (Diisopropylamine; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	5 ppm (Diisopropylamine; Belgium; Time-weighted average exposure limit 8 h)
France	VME (mg/m ³)	20 mg/m ³ (Diisopropylamine; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	VME (ppm)	5 ppm (Diisopropylamine; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	5.00000000 ppm (Diisopropylamine; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
United Kingdom	WEL TWA (mg/m ³)	21 mg/m ³ Diisopropylamine; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	5 ppm Diisopropylamine; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
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Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	10.00000000 ppm Central Nervous System impairment. Cognitive decrement. Renal toxicity. Substances for which there is a Biological Exposure Index or Incices (see BEI section). Suspected human carcinogen. USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	25 ppm Central Nervous System impairment. Cognitive decrement. Renal toxicity. Substances for which there is a Biological Exposure Index or Incices (see BEI section). Suspected human carcinogen. Potential Occupational Carcinogen. See Appendix C. See Appendix A. See Table Z-2. USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Trichloroethylene CAS No. 79-01-6 15 mg/l Urine Remarks: End of shift at end of workweek. ACGIH-Biological Exposure Indices (BEI); Trichloroethylene 0.5 mg/l In blood Remarks: End of shift at end of workweek. ACGIH- Biological Exposure Indices (BEI); Trichloroethylene In Blood Remarks: End of shift at end of workweek. ACGIH- Biological Exposure Indices (BEI); Trichloroethylene In end-exhaled air Remarks: End of shift at end of workweek. ACGIH- Biological Exposure Indices (BEI).
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm Z37.1-1967. USA. Occupational Exposure Limits (OSHA) - Table Z-2.
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USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	135 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)
USA OSHA	OSHA PEL (Ceiling) (ppm)	200 ppm Z37.1-1967. USA. Occupational Exposure Limits (OSHA) - Table Z-2.
USA OSHA	Remark (OSHA)	C 300 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107), PEL 25 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107).

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8.2. Exposure controls

- Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



- Materials for protective clothing : Wear suitable protective clothing and gloves.
- Hand protection : Wear suitable protective clothing and gloves.
- Eye protection : Wear safety glasses with side shields (or goggles) and a face shield.
- Skin and body protection : Wash with soap and plenty of water. Consult a physician.
- Respiratory protection : When appropriate, use NIOSH/CEN approved respirator.
- Environmental exposure controls : Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Liquid, clear
- Molecular mass : 133.37 g/mol (Labeled)
- Colour : Colourless
- Odour : No data available
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : -84.8 °C (- 120.6 °F) - lit.
- Freezing point : No data available
- Boiling point : 86.7 °C (188.1 °F) - lit.
- Flash point : No data available
- Auto-ignition temperature : 410 °C (770 °F)
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapour pressure : 81.3 hPa (61.0 mmHg) at 20 °C (68 °F)
- Relative vapour density at 20 °C : No data available
- Relative density : No data available
- Density : 1.463 g/ml at 25 °C (77 °F)
- Solubility : No data available
- Log Pow : 2.29 - 5
- Log Kow : No data available
- Viscosity, kinematic : No data available
- Viscosity, dynamic : No data available
- Explosive properties : No data available
- Oxidising properties : No data available
- Explosive limits : 8 - 10.5 % (V)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Not available.

10.2. Chemical stability

Two years after receipt of order if stored as above. Re-QC after two years.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Not available.

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10.5. Incompatible materials

Oxidizing agents, Strong bases, Magnesium.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Hydrogen chloride gas.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE (79-01-6 (Unlabeled))	
LD50 oral rat	4920 mg/kg
LD50 dermal rabbit	> 20000 mg/kg
ATE CLP (oral)	4920.000 mg/kg bodyweight
Additional information	LC50 Inhalation - Mouse - 4 h - 8,450 ppm

DIISOPROPYLAMINE (108-18-9 (Unlabeled))	
LD50 oral rat	770 mg/kg (Rat)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	2.4 mg/l/4h (Rat)

TRICHLOROETHYLENE (13C2, 98%) (79-01-6 (Unlabeled))	
LD50 oral rat	4920 mg/kg
LD50 dermal rabbit	> 20000 mg/kg
ATE CLP (oral)	4920.000 mg/kg bodyweight
Additional information	LC50 Inhalation - Mouse - 4 h - 8,450 ppm

Skin corrosion/irritation	: Skin - Rabbit Result: Severe skin irritation - 24 h
Serious eye damage/irritation	: Eyes - Rabbit Result: Eye irritation - 24 h
Respiratory or skin sensitisation	: Not available No data available
Germ cell mutagenicity	: Laboratory experiments have shown mutagenic effects. In vitro tests showed mutagenic effects.
Carcinogenicity	: This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Possible human carcinogen.
Reproductive toxicity	: Not available
STOT-single exposure	: May cause drowsiness or dizziness. May cause damage to organs.
STOT-repeated exposure	: Not classified No data available
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Burning sensation. Cough. Wheezing. Laryngitis. Shortness of breath. Headache. Nausea. Vomiting. Consumption of alcohol may increase toxic effects. Gastrointestinal disturbance. Kidney injury may occur. Narcosis. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
IARC group	: 1
Symptoms/injuries after inhalation	: May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.
Symptoms/injuries after skin contact	: May be harmful if absorbed through the skin. Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE (79-01-6 (Unlabeled))	
LC50 fish 1	41 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	18 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	175 mg/l Pseudokirchneriella subcapitata (green algae) - 96 h
LOEC (chronic)	11 mg/l Other fish - 10 d
NOEC (chronic)	40 mg/l Oryzias latipes - 10 d

DIISOPROPYLAMINE (108-18-9 (Unlabeled))	
LC50 fish 1	37 mg/l (LC50; 96 h)

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DIISOPROPYLAMINE (108-18-9 (Unlabeled))	
EC50 Daphnia 1	25.8 - 170 mg/l (EC50; 24 h)
EC50 other aquatic organisms 1	20 mg/l (96 h; Selenastrum capricornutum; Growth rate)
TRICHLOROETHYLENE (13C2, 98%) (79-01-6 (Unlabeled))	
LC50 fish 1	41 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	18 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	175 mg/l Pseudokirchneriella subcapitata (green algae) - 96 h
LOEC (chronic)	11 mg/l Other fish - 10 d
NOEC (chronic)	40 mg/l Oryzias latipes - 10 d

12.2. Persistence and degradability

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE (79-01-6 (Unlabeled))	
Persistence and degradability	Not available.
DIISOPROPYLAMINE (108-18-9 (Unlabeled))	
Persistence and degradability	Not readily biodegradable in water.
BOD (% of ThOD)	0.01
TRICHLOROETHYLENE (13C2, 98%) (79-01-6 (Unlabeled))	
Persistence and degradability	Not available.

12.3. Bioaccumulative potential

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE (79-01-6 (Unlabeled))	
Log Pow	2.29 - 5
Bioaccumulative potential	Does not bioaccumulate.
DIISOPROPYLAMINE (108-18-9 (Unlabeled))	
Log Pow	1.09 - 1.84 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
TRICHLOROETHYLENE (13C2, 98%) (79-01-6 (Unlabeled))	
Log Pow	2.29 - 5
Bioaccumulative potential	Does not bioaccumulate.

12.4. Mobility in soil

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE (79-01-6 (Unlabeled))	
Ecology - soil	Not available.
DIISOPROPYLAMINE (108-18-9 (Unlabeled))	
Surface tension	0.02 N/m (20 °C)
TRICHLOROETHYLENE (13C2, 98%) (79-01-6 (Unlabeled))	
Ecology - soil	Not available.

12.5. Results of PBT and vPvB assessment

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 considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.

Product/Packaging disposal recommendations: : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

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

14.1. UN number

UN-No.(DOT) : 1710
DOT NA no. UN1710

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14.2. UN proper shipping name

Proper Shipping Name (DOT) : Trichloroethylene
Class (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132
Hazard labels (DOT) : 6.1 - Poison



Packing group (DOT) : III - Minor Danger
DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
N36 - Aluminum or aluminum alloy construction materials are permitted only for halogenated hydrocarbons that will not react with aluminum.
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) : 153
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT RQ : 100 lbs
Marine pollutant : No

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : III
Class (ADR) : 6.1 - Toxic substances
Hazard identification number (Kemler No.) : 60
Classification code (ADR) : T1
Danger labels (ADR) : 6.1 - Toxic substances



Orange plates : 

Tunnel restriction code (ADR) : E
Limited quantities (ADR) : 5l
EAC code : 2Z
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.
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"
MFAG-No : 160

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

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE

CLM-129

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

Civil Aeronautics Law : Toxic and infectious substances/Toxic substances(Hazardous materials notice Appended Table 1 Article 194 of the Enforcement Regulations)

14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE (79-01-6 (Unlabeled))

Subject to reporting requirements of United States SARA Section 313

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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TRICHLOROETHYLENE (13C2, 98%) (79-01-6 (Unlabeled))

Subject to reporting requirements of United States SARA Section 313

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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15.2. International regulations

CANADA

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE (79-01-6 (Unlabeled))

Listed on the Canadian DSL (Domestic Substances List)

TRICHLOROETHYLENE (13C2, 98%) (79-01-6 (Unlabeled))

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE (79-01-6 (Unlabeled))

U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	Yes
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Yes
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

TRICHLOROETHYLENE (13C2, 98%) (79-01-6 (Unlabeled))

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	Yes	

DIISOPROPYLAMINE (108-18-9 (Unlabeled))

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

TRICHLOROETHYLENE (13C2, 98%) (79-01-6 (Unlabeled))

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

TRICHLOROETHYLENE (13C2, 98%) STABILIZED WITH ~40PPM DIISOPROPYLAMINE

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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

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.

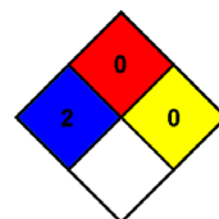
Full text of R-, H- and EUH-statements:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Carc. 1A	Carcinogenicity, Category 1A
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H350	May cause cancer
H412	Harmful to aquatic life with long lasting effects
R11	Highly flammable
R20/22	Harmful by inhalation and if swallowed
R34	Causes burns
R36/38	Irritating to eyes and skin
R45	May cause cancer
R49	May cause cancer by inhalation
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R67	Vapours may cause drowsiness and dizziness
R68	Possible risk of irreversible effects
C	Corrosive
F	Highly flammable
Xi	Irritant
Xn	Harmful

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

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 : 0 Minimal Hazard

Physical : 0 Minimal Hazard

CIL Multi-Solvent 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