

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: 17/03/2015 Revision date: 30/07/2018 Supersedes: 05/04/2018 Version: 1.2

ULM-7214-S

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

1.1. Product identifier

Product form : Mixtures

Product name : 1,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/

HYDROQUINONE

Product code : ULM-7214-S

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

1.2.1. Relevant identified uses

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 <u>cilsales@isotope.com</u> 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]

Flam. Liq. 2 H225
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Acute Tox. 3 (Inhalation) H331
Skin Irrit. 2 H315
Eye Irrit. 2 H319
STOT SE 1 H370

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

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

F; R11 T; R23/24/25 Xi; R36/38

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2 H225
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Acute Tox. 3 (Inhalation:vapour) H331
Skin Irrit. 2 H315
Eye Irrit. 2A H319
STOT SE 1 H370
Full text of H statements : see section 16

30/07/2018 EN (English US) 1/12

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)







Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour

H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled

H315 - Causes skin irritation H319 - Causes serious eye irritation

H370 - Causes damage to organs (central nervous system, eyes, heart, kidneys, liver) (in

contact with skin, if inhaled, if swallowed)

Precautionary statements (CLP) : 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

P260 - Do not breathe fume, mist, spray, vapors.
P264 - Wash both hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.

GHS-US labeling

Hazard pictograms (GHS-US)







Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapour

H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled

H315 - Causes skin irritation H319 - Causes serious eye irritation

H370 - Causes damage to organs (central nervous system, eyes, heart, kidneys, liver) (Dermal,

Inhalation, oral)

Precautionary statements (GHS-US) : 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.

P260 - Do not breathe fume, mist, spray, vapors. P261 - Avoid breathing fume, mist, spray, vapors. P264 - Wash Both hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear eye protection, face protection, protective clothing, protective gloves.

P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER

P302+P352 - If on skin: Wash with plenty of water

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse

skin with water/shower

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

P311 - Call a doctor, a POISON CENTER

P312 - Call a doctor, a POISON CENTER if you feel unwell

P330 - Rinse mouth.

30/07/2018 EN (English US) 2/12

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

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P361 - Take off immediately all contaminated clothing.

P362 - Take off contaminated clothing and wash before reuse.

P363 - Wash contaminated clothing before reuse.

P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water spray to extinguish.

H331

Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 1, H370

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

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

P405 - Store locked up.

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

2.3. Other hazards

PBT: not relevant - no registration required

SECTION 3: Composition/Information on ingredients

Substances 3.1.

Not applicable

3.2. **Mixtures**

| Name | Product identifier | % | Classification according to Directive 67/548/EEC |
|--------------------------------|---|-----------|--|
| 100% METHANOL UNLABELED | (CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X (REACH-no) 01-2119433307-44 | 99.987359 | F; R11 T; R39/23/24/25 Xi; R36/38 |
| 1,1-DICHLOROETHYLENE UNLABELED | (CAS-No.) 75-35-4 (EC-No.) 200-864-0 (EC Index-No.) 602-025-00-8 | 0.0126 | F+; R12 T; R25 Xi; R36/38 Carc.Cat.3; R40 |
| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
| 100% METHANOL UNLABELED | (CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X (REACH-no) 01-2119433307-44 | 99.987359 | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 1, H370 |
| 1,1-DICHLOROETHYLENE UNLABELED | (CAS-No.) 75-35-4 (EC-No.) 200-864-0 (EC Index-No.) 602-025-00-8 | 0.0126 | Flam. Liq. 1, H224 Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 |
| Name | Product identifier | % | GHS-US classification |
| 100% METHANOL UNLABELED | (CAS-No.) 67-56-1 | 99.987359 | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), |

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

SECTION 4: First aid measures

Description of first aid measures

First-aid measures general

: Call a POISON CENTER or doctor/physician.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water.

Wash contaminated clothing before reuse.

First-aid measures after eye contact Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

30/07/2018 EN (English US) 3/12

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

doctor/physician.

: Rinse mouth. Obtain emergency medical attention. Immediately call a poison center or

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

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant

health hazard. Toxic in contact with skin. Causes skin irritation.

Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

nazard.

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

No additional information available

First-aid measures after ingestion

SECTION 5: Firefighting measures

5.1. Extinguishing media

No additional information available

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapor-air mixture.

Reactivity : Vapors may form flammable mixture with air. Highly flammable liquid and vapour.

5.3. Advice for firefighters

No additional information available

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 open flames. No

smoking

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

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 open flames. No smoking. Use only non-sparking tools.

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.

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

Incompatible materials : Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| 100% METHANOL UNLABELED (67-56-1) | | |
|-----------------------------------|------------------|--|
| Italy - Portugal - USA ACGIH | ACGIH TWA (ppm) | 200.00000000 ppm Basis: USA. ACGIH Threshold Limit Values (TLV) |
| Italy - Portugal - USA ACGIH | ACGIH STEL (ppm) | 250 ppm Basis: USA. ACGIH Threshold Limit Values (TLV) |

30/07/2018 EN (English US) 4/12

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

| 100% METHANOL UNLABEL | .ED (67-56-1) | |
|------------------------------|--------------------------|--|
| Italy - Portugal - USA ACGIH | Remark (ACGIH) | Headache. Nausea. Dizziness. Eye damage. Substances for which there is a Biological Exposure Index or Indices (see BEI section). Danger of cutaneous absorption. |
| USA NIOSH | NIOSH REL (TWA) (mg/m³) | 260 mg/m³ Basis: NIOSH Recommended Exposure Limits |
| USA NIOSH | NIOSH REL (TWA) (ppm) | 200 ppm Basis: NIOSH Recommended Exposure Limits |
| USA NIOSH | NIOSH REL (STEL) (mg/m³) | 325 mg/m³ Basis: NIOSH Recommended Exposure Limits |
| USA NIOSH | NIOSH REL (STEL) (ppm) | 250 ppm Basis: NIOSH Recommended Exposure Limits |
| USA NIOSH | Remark (NIOSH) | Potential for dermal absorption. |
| USA OSHA | OSHA PEL (TWA) (mg/m³) | 260 mg/m³ Basis: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| USA OSHA | OSHA PEL (TWA) (ppm) | 200 ppm Basis: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| USA OSHA | OSHA PEL (STEL) (mg/m³) | 325 mg/m³ Basis: USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| USA OSHA | OSHA PEL (STEL) (ppm) | 250 ppm Basis: USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| USA OSHA | OSHA PEL (Ceiling) (ppm) | 1000 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| USA OSHA | Remark (OSHA) | The value in mg/m3 is approximate. Skin notation. |
| 1,1-DICHLOROETHYLENE U | NLABELED (75-35-4) | |
| Italy - Portugal - USA ACGIH | ACGIH TWA (ppm) | 5.00000000 ppm USA. ACGIH Threshold Limit Values (TLV) |
| Italy - Portugal - USA ACGIH | Remark (ACGIH) | Liver damage. Kidney damage. Not classifiable as a human carcinogen. Potential Occupational Carcinogen. See Appendix A. |
| USA OSHA | OSHA PEL (TWA) (mg/m³) | 4 mg/m³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 1 ppm |
| USA OSHA | Remark (OSHA) | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |

8.2. Exposure controls

Appropriate engineering controls

- : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.









Materials for protective clothing

Hand protection

Eye protection

Skin and body protection Respiratory protection

Environmental exposure controls

: Wear suitable protective clothing and gloves.

: Wear suitable protective clothing and gloves.

: Wear eye protection. Chemical goggles or face shield with safety glasses.

: Wear suitable protective clothing, gloves and eye/face protection.

: In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.

: Avoid release to the environment.

30/07/2018 EN (English US) 5/12

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.

Physical state : Liquid
Appearance : Liquid
Molecular mass : 32.04 g/mol
Color : Colorless
Odor : Pungent

Odor threshold : No data available pH : No data available Relative evaporation rate (butyl acetate=1) : No data available Melting point : -98 °C (-144 °F) Freezing point : No data available Boiling point : 64.7 °C (148.5 °F)

Flash point : 9.7 °C (49.5 °F) - closed cup

Auto-ignition temperature : 455 °C (851 °F) at 1,013 hPa (760 mmHg)

Decomposition temperature : No data available Flammability (solid, gas) : No data available

Vapor pressure : 130.3 hPa (97.7 mmHg) at 20 °C (68 °F); 169.27 hPa (126.96 mmHg) at 25 °C (77 °F)

Vapor pressure at 50 °C : 546.6 hPa (410 mmHg) at 50 °C (122 °F)

Relative vapor density at 20 °C : 1.11

Relative density : No data available

Specific gravity / density : 0.791 g/ml at 25 °C (77 °F)
Solubility : Water: Completely miscible

Log Pow : -0.77

Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : Product is not explosive.

Oxidizing properties : Non oxidizing material according to EC criteria.

Explosion limits : 6 - 36 % (V)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapors may form flammable mixture with air. Highly flammable liquid and vapour.

10.2. Chemical stability

See storage and expiration date on CoA.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Acid anhydrides. Acid chlorides. Oxidizing agent. Alkali Metal Amides. Reducing agents. Acids.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation: Toxic if inhaled.

| 1,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/ HYDROQUINONE | |
|---|-------------------|
| LD50 oral rat | 1187 - 2769 mg/kg |
| LD50 dermal rabbit | 17100 mg/kg |

30/07/2018 EN (English US) 6/12

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

| 20, 2012 / Italioo and Itagalations | |
|--|--|
| 1,1-DICHLOROETHYLENE 100 UG/ML IN ME | THANOL UNLABELED STABILIZED W/ HYDROQUINONE |
| LC50 inhalation rat (mg/l) | 128.2 mg/l/4h ; 87.6 mg/l - 6 h |
| ATE CLP (oral) | 100.000 mg/kg body weight |
| ATE CLP (dermal) | 300.000 mg/kg body weight |
| ATE CLP (vapors) | 3.000 mg/l/4h |
| ATE CLP (dust, mist) | 128.200 mg/l/4h |
| LDLO, oral, human | 143 mg/kg Remarks: Lungs, Thorax, or Respiration: Dyspnea. Ingestion may cause |
| | gastrointestinal irritation, nausea, vomiting and diarrhea. |
| 100% METHANOL UNLABELED (67-56-1) | |
| LD50 oral rat | 1187 - 2769 mg/kg |
| LD50 dermal rabbit | 17100 mg/kg |
| LC50 inhalation rat (mg/l) | 128.2 mg/l/4h ; 87.6 mg/l - 6 h |
| ATE CLP (oral) | 100.000 mg/kg body weight |
| ATE CLP (dermal) | 300.000 mg/kg body weight |
| ATE CLP (vapors) | 3.000 mg/l/4h |
| ATE CLP (dust, mist) | 128.200 mg/l/4h |
| LDLO, oral, human | 143 mg/kg Remarks: Lungs, Thorax, or Respiration: Dyspnea. Ingestion may cause |
| | gastrointestinal irritation, nausea, vomiting and diarrhea. |
| 1,1-DICHLOROETHYLENE UNLABELED (75- | 35-4) |
| LD50 oral rat | 200 mg/kg Inhalation: Lung irritation |
| ATE CLP (oral) | 200.000 mg/kg body weight |
| ATE CLP (dust, mist) | 1.500 mg/l/4h |
| Skin corrosion/irritation | : Skin - Rabbit. Result: No skin irritation |
| Serious eye damage/irritation | : Eyes - Rabbit. Result: No eye irritation |
| Respiratory or skin sensitization | : Maximisation Test . Guinea pig. Did not cause sensitization. (OECD 406 method) |
| Germ cell mutagenicity | : AMES test: S. tymphimurium. Result: negative. fibroblast. Result: Negative. Mutation in mammalian somatic cells. Mutagenicity (in vivo mammalian bone-marrow cystogenetic test, chromosomal analysis) - Mouse - male and female Result: negative. Mouse - male and female. Result: Negative |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Damage to fetus not classifiable. Fertility classification not possible from current data. |
| Specific target organ toxicity – single exposure | : Causes damage to organs through prolonged or repeated exposure |
| | Causes damage to organs |
| Specific target organ toxicity – repeated | : The substance or mixture is not classified as specific target organ toxicant, repeated exposure. |
| exposure | No data available |
| Aspiration hazard | : No aspiration toxicity classification. |
| Potential Adverse human health effects and | : This information is based on our current knowledge and is intended to describe the product for |
| symptoms | the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. Effects due to Ingestion may include: Headache. Dizziness. Drowsiness. metabolic acidosis. Coma. May be fatal if swallowed and enters airways. If swallowed there is a risk of blindness. Effects on humans. stomach. |
| Symptoms/effects after skin contact | : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin. Causes skin irritation. |
| Symptoms/effects after ingestion | : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. |
| | |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

| 1,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/ HYDROQUINONE | |
|---|--|
| LC50 fish 1 | 15400 mg/l mortality LC50 - Lepomis machrochirus (Bluegill) - 96 h |
| EC50 Daphnia 1 | > 10000 mg/l Daphnia magna (Water flea) - 48 h |
| EC50 Daphnia 2 | 22000 mg/l Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) - 96 h |
| NOEC (acute) | 7900 mg/l Oryzias latipes - 200 h |

30/07/2018 EN (English US) 7/12

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

| 100% METHANOL UNLABELED (67-56-1) | 00% METHANOL UNLABELED (67-56-1) | |
|--|--|--|
| LC50 fish 1 | 15400 mg/l mortality LC50 - Lepomis machrochirus (Bluegill) - 96 h | |
| EC50 Daphnia 1 > 10000 mg/l Daphnia magna (Water flea) - 48 h | | |
| EC50 Daphnia 2 | 22000 mg/l Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) - 96 h | |
| NOEC (acute) 7900 mg/l Oryzias latipes - 200 h | | |
| 1,1-DICHLOROETHYLENE UNLABELED (75-35-4) | | |
| LC50 fish 1 | 11.6 - 11.79 Daphnia magna (Water flea) | |
| LC50 other aquatic organisms 1 | 74.00 - 220.00 mg/l - Lepomis macrochirus (Bluegill) | |
| LC50 fish 2 | 108.00 - 169.00 mg/l - Pimephales promelas (fathead minnow) | |
| LC50 other aquatic organisms 2 | 249.00 mg/l - Cyprinodon variegatus (sheepshead minnow) | |
| NOEC chronic fish Cyprinodon variegatus (sheepshead minnow) - 80 mg/l - 96 h | | |

12.2. Persistence and degradability

| 1,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/ HYDROQUINONE | |
|---|--|
| Biochemical oxygen demand (BOD) | 600 - 1200 mg/g |
| Chemical oxygen demand (COD) | 1420 mg/g |
| ThOD | 1500 mg/g |
| Biodegradation | 72 % - rapidly biodegradable aerobic - Exposure time 5 d |
| 100% METHANOL UNLABELED (67-56-1) | |
| Biochemical oxygen demand (BOD) | 600 - 1200 mg/g |
| Chemical oxygen demand (COD) | 1420 mg/g |
| ThOD | 1500 mg/g |
| Biodegradation | 72 % - rapidly biodegradable aerobic - Exposure time 5 d |

12.3. Bioaccumulative potential

| ,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/ HYDROQUINONE | |
|--|---|
| BCF fish 1 | 5 mg/l Cyprinus carpio (Carp) - 72 d at 20 °C |
| Bioconcentration factor (BCF REACH) | 1 |
| Log Pow | -0.77 |
| 100% METHANOL UNLABELED (67-56-1) | |
| BCF fish 1 | 5 mg/l Cyprinus carpio (Carp) - 72 d at 20 °C |
| Bioconcentration factor (BCF REACH) | 1 |

12.4. Mobility in soil

Log Pow

| 1,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/ HYDROQUINONE | |
|---|-----------------------------|
| Ecology - soil | Not degradable in the soil. |
| 100% METHANOL UNLABELED (67-56-1) | |
| Ecology - soil Not degradable in the soil. | |

12.5. Results of PBT and vPvB assessment

| ı | 1,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/ HYDROQUINONE |
|---|---|
| | |

-0.77

PBT: not relevant - no registration required

100% METHANOL UNLABELED (67-56-1)

PBT: not relevant - no registration required

12.6. Other adverse effects

Other adverse effects : Avoid release to the environment.

Other information : Stability in water: at 19 °C - (83 - 91%) - 72 h. Remarks: Hydrolyses on contact with water. Hydrolyses readily.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Hazardous waste due to toxicity.

30/07/2018 EN (English US) 8/12

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

SECTION 14: Transport information

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

14.1. UN number

UN-No.(DOT) : 1230 DOT NA no. UN1230

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Methanol

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid

6.1 - Poison





DOT Symbols

: + - Fixes (cannot be altered) proper shipping name, hazard class, and packing group,I - Proper shipping name appropriate for international and domestic transportation

Packing group (DOT)

: II - Medium Danger

DOT Special Provisions (49 CFR 172.102)

: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). 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.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : II

Class (ADR) : 3 - Flammable liquid

Hazard identification number (Kemler No.) : 336 Classification code (ADR) : FT1

Hazard labels (ADR) : 3 - Flammable liquids

6.1 - Toxic substances



Orange plates

336 1230

Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) 11
EAC : •2WE
APP : A(fl)
Excepted quantities (ADR) : E2

30/07/2018 EN (English US) 9/12

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

Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

MFAG-No : 131

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 1 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

Civil Aeronautics Law : Flammable liquids

14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

| 1,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/ HYDROQUINONE Listed on the United States TSCA (Toxic Substances Control Act) inventory CERCLA RQ 5000 lb | | | |
|---|---|--|---|
| | | SARA Section 302 Threshold Planning Quantity (TPQ) | Not subject to reporting requirements of the United States SARA Section 302. |
| | | SARA Section 311/312 Hazard Classes | Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard |
| SARA Section 313 - Emission Reporting | Subject to reporting requirements of United States SARA Section 313 | | |

| 100% METHANOL UNLABELED (67-56-1) | | | | |
|---|--|--|--|--|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | | | | |
| CERCLA RQ | 5000 lb | | | |
| SARA Section 302 Threshold Planning Quantity (TPQ) | Not subject to reporting requirements of the United States SARA Section 302. | | | |
| SARA Section 311/312 Hazard Classes | Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard | | | |
| SARA Section 313 - Emission Reporting | Subject to reporting requirements of United States SARA Section 313 | | | |

15.2. International regulations

CANADA

1,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/ HYDROQUINONE

Listed on the Canadian DSL (Domestic Substances List)

100% METHANOL UNLABELED (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

| 1,1-DICHLOROETHYLENE 100 UG/ML IN METHANOL UNLABELED STABILIZED W/ HYDROQUINONE | | |
|---|-----|--|
| U.S California - Proposition 65 - Carcinogens List | No | |
| U.S California - Proposition 65 - Developmental | Yes | |

30/07/2018 EN (English US) 10/12

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

| 1,1-DICHLOROETHYLE | NE 100 UG/ML IN METHANOL | L UNLABELED STABILIZED W/ | HYDROQUINONE | |
|--|--|---|---|----------------------------------|
| Toxicity | | | | |
| U.S California - Proposition 65 - Reproductive Toxicity - Female | | No | | |
| U.S California - Proposition 65 - Reproductive Toxicity - Male | | No | | |
| State or local regulations | | U.S Delaware - Pollutant Discharge Requirements - Reportable Quantities U.S Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations 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 U.S New York - Reporting of Releases Part 597 - List of Hazardous Substances | | |
| 100% METHANOL UNL | ABELED (67-56-1) | | | |
| 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 | Yes | No | No | |

100% METHANOL UNLABELED (67-56-1)

State or local regulations

- U.S. Delaware Pollutant Discharge Requirements Reportable Quantities
- U.S. Idaho Non-Carcinogenic Toxic Air Pollutants Acceptable Ambient Concentrations
- 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
- U.S. New York Reporting of Releases Part 597 List of Hazardous Substances

SECTION 16: Other information

Other information

This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-. H- and EUH-phrases:

| text of it-, it- and Lorr-prinases. | |
|-------------------------------------|--|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal) Category 3 |
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhalation) Category 3 |
| Acute Tox. 3 (Inhalation:vapour) | Acute toxicity (inhalation:vapour) Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral) Category 3 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4 |
| Carc. 2 | Carcinogenicity Category 2 |
| Eye Irrit. 2 | Serious eye damage/eye irritation Category 2 |
| Flam. Liq. 1 | Flammable liquids Category 1 |
| Flam. Liq. 2 | Flammable liquids Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| STOT SE 1 | Specific target organ toxicity (single exposure) Category 1 |
| H224 | Extremely flammable liquid and vapour |
| H225 | Highly flammable liquid and vapour |
| H301 | Toxic if swallowed |
| H311 | Toxic in contact with skin |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H331 | Toxic if inhaled |
| H332 | Harmful if inhaled |
| H351 | Suspected of causing cancer |
| H370 | Causes damage to organs |
| R11 | Highly flammable |
| R12 | Extremely flammable |
| R23/24/25 | Toxic by inhalation, in contact with skin and if swallowed |
| R25 | Toxic if swallowed |
| R36/38 | Irritating to eyes and skin |
| R39/23/24/25 | Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed |
| | |

30/07/2018 EN (English US) 11/12

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

| R40 | Limited evidence of a carcinogenic effect | |
|-----|---|--|
| F | Highly flammable | |
| F+ | Extremely flammable | |
| Т | Toxic | |
| Xi | Irritant | |

NFPA health hazard

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

NFPA fire hazard

: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard 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

30/07/2018 EN (English US) 12/12