

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: 10/03/2014 Revision date: 26/07/2018 Supersedes: 20/06/2018 Version: 2.0

ULM-6075-20X-S

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

1.1. Product identifier

Product form : Mixtures

Product name : O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN

METHANOL (PROD. USE ONLY)

Product code : ULM-6075-20X-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:vapour) 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; R39/23/24/25 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

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Adverse physicochemical, human health and environmental effects

Eyes, Kidney, Liver, Heart, Central nervous system. Highly flammable liquid and vapour. Causes damage to organs (eyes, kidneys, liver, heart, central nervous system) (if inhaled, if swallowed, in contact with skin). Toxic in contact with skin. Toxic if inhaled. Toxic if swallowed. Causes skin irritation. Causes serious eye irritation.

2.2. Label elements

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

Hazard pictograms (CLP)

Signal word (CLP)

Hazard statements (CLP)







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: Danger

: 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 (eyes, heart, kidneys, liver, central nervous system) (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 dust, mist, vapors, fume, gas, spray. P264 - Wash hands, forearms and face 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 (eyes, kidneys, liver, heart, central nervous system) (Dermal,

Inhalation, oral)

Precautionary statements (GHS-US) : P210 - Keep away from heat, 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 dust, fume, mist, gas, spray, vapors.
P261 - Avoid breathing dust, fume, gas, spray, vapors, mist.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.

P271 - Use only outdoors or in a well-ventilated area P280 - Wear 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 P307+P311 - If exposed: Call a poison center/doctor

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P311 - Call a doctor, a POISON CENTER

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

P321 - Specific treatment (see Hazardous component(s) for labeling on this label)

P322 - Specific treatment (see Hazard pictograms (CLP) on this label)

P330 - Rinse mouth.

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

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

P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.

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P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry

extinguishing powder to extinguish.

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 hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

PBT: not relevant - no registration required

SECTION 3: Composition/Information on ingredients

Substances

Not applicable

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 | 99.873737 | F; R11 T; R39/23/24/25 Xi; R36/38 |
| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED | (CAS-No.) 5871-17-0 | 0.001 | Xi; R36/37 |
| Name | Product identifier | % | Classification according to |

| 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 | 99.873737 | 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 |
| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED | (CAS-No.) 5871-17-0 | 0.001 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 |

| Name | Product identifier | % | GHS-US classification |
|-------------------------|--------------------|-----------|---|
| 100% METHANOL UNLABELED | (CAS-No.) 67-56-1 | 99.873737 | 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 R- and H- phrases: see section 16

SECTION 4: First aid measures

Description of first aid measures

First-aid measures general

Move out of dangerous area. Consult a physician and show this safety data sheet. Call a POISON CENTER or doctor/physician. Seek medical attention if ill effect develops.

First-aid measures after inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician. If you feel unwell, seek medical advice.

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First-aid measures after skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician. Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Wash with soap and plenty of water. Consult a physician. Get medical advice/attention. Specific treatment (see Hazard pictograms (CLP) on this label).

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First-aid measures after eye contact

: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Flush eye with water for 15 minutes. Get medical attention.

First-aid measures after ingestion

Do NOT induce vomiting. 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/effects after inhalation

: May be harmful if inhaled. Causes respiratory tract irritation. Toxic if inhaled. Danger of serious damage to health by prolonged exposure through inhalation.

Symptoms/effects after skin contact

: Toxic if absorbed through skin. Causes skin irritation. Causes skin irritation.

Symptoms/effects after eye contact Symptoms/effects after ingestion : Causes eye irritation.: Toxic if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

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.

5.2. Special hazards arising from the substance or mixture

Fire hazard

Reactivity

: Highly flammable liquid and vapour.

Explosion hazard

: May form flammable/explosive vapor-air mixture.: Vapors may form explosive mixture with air.

5.3. Advice for firefighters

Firefighting instructions

: Use water spray to cool unopened containers.

Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection.

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

Emergency procedures

: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.1.2. For emergency responders

Protective equipment

: Avoid breathing dust, mist or spray.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For containment

: Contain spillage, then collect with non-combustible absorbent material. Disposal should be in accordance with applicable Federal, State and local regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed

: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Handle empty containers with care because residual vapors

Precautions for safe handling

: No open flames. No smoking. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. In order to avoid inhalation of mist/vapor, all spraying must be done wearing adequate respirator. Provide good ventilation in process area to prevent formation of vapor.

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Hygiene measures

: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after

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handling the product. Wash Both hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Store in freezer.

Storage conditions : Store in freezer (-20 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

| O,O-DIETHYL PHOSPHORO | THIOATE, POTASSIUM SALT UNLABELED 2 MG/ML II | N METHANOL (PROD. USE ONLY) |
|------------------------------|--|--|
| 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) |
| 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 OSHA | OSHA PEL (TWA) (ppm) | 200 ppm Skin notation. |
| USA OSHA | OSHA PEL (STEL) (ppm) | 250 ppm Skin notation. |
| 100% METHANOL UNLABEL | .ED (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) |
| 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. |

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| O,O-DIETHYL PHOSPHOROTHIOATE, POTA | SSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY) |
|--|---|
| DNEL/DMEL (Workers) | |
| Acute - systemic effects, dermal | 40 mg/kg bodyweight/day |
| Acute - systemic effects, inhalation | 260 mg/m³ |
| Acute - local effects, dermal | 260 mg/cm ² |
| Long-term - systemic effects, dermal | 40 mg/kg bodyweight/day |
| Long-term - local effects, dermal | 260 mg/cm ² |
| Long-term - local effects, inhalation | 260 mg/m³ |
| DNEL/DMEL (General population) | |
| Acute - systemic effects, dermal | 8 mg/kg body weight |
| Acute - systemic effects, inhalation | 50 mg/m³ |
| Acute - systemic effects, oral | 8 mg/kg body weight |
| Acute - local effects, inhalation | 50 mg/m³ |
| Long-term - systemic effects,oral | 8 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 50 mg/m³ |
| Long-term - systemic effects, dermal | 8 mg/kg bodyweight/day |
| Long-term - local effects, inhalation | 50 mg/m³ |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 154 mg/l |
| PNEC aqua (marine water) | 15.4 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 570.4 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 23.5 mg/kg dwt |
| PNEC (STP) | |
| PNEC sewage treatment plant | 100 mg/kg |

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 : Wear suitable protective clothing and gloves. Hand protection : Wear suitable protective clothing and gloves.

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

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

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

Environmental exposure controls : Avoid release to the environment.

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 avail.

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

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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 explosive mixture with air.

10.2. Chemical stability

See storage and expiration date. Highly flammable liquid and vapour.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Avoid Heat, Flames and Sparks. Open flame. Direct sunlight.

10.5. Incompatible materials

Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals. Reducing agents, Acids.

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY) | | |
|---|--|--|
| 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) | 300.379 mg/kg body weight | |
| ATE CLP (vapors) | 3.004 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 |

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| 100% METHANOL UNLABELED (67-56-1) | |
|---|---|
| LDLO, oral, human | 143 mg/kg Remarks: Lungs, Thorax, or Respiration: Dyspnea. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |
| 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 exposure | : The substance or mixture is not classified as specific target organ toxicant, repeated exposure No data available |
| Aspiration hazard | : No aspiration toxicity classification. |
| Potential Adverse human health effects and symptoms | : 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. 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 inhalation | : May be harmful if inhaled. Causes respiratory tract irritation. Toxic if inhaled. Danger of seriou damage to health by prolonged exposure through inhalation. |
| Symptoms/effects after skin contact | : Toxic if absorbed through skin. Causes skin irritation. Causes skin irritation. |
| Symptoms/effects after eye contact | : Causes eye irritation. |
| Symptoms/effects after ingestion | : Toxic if swallowed. |

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.

| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY) | | | |
|---|--|--|--|
| 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 | | |
| O,O-DIETHYL PHOSPHOROTHIOATE, POTAS | O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED (5871-17-0) | | |
| LC50 fish 1 | 100 mg/l - 96 h, Lepomis macrochirus - | | |
| EC50 Daphnia 1 | 42.5 mg/l - 24 h, Daphnia magna (Water flea) - | | |
| 100% 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 | | |

12.2. Persistence and degradability

| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY) | | |
|---|--|--|
| 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 | |
| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED (5871-17-0) | | |
| Persistence and degradability | Not available. | |

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| 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

| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY) | |
|---|---|
| BCF fish 1 | 5 mg/l Cyprinus carpio (Carp) - 72 d at 20 °C |
| Bioconcentration factor (BCF REACH) | 1 |
| Log Pow | -0.77 |

O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED (5871-17-0)

Bioaccumulative potential Not available.

| 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 | | |
| Log Pow | -0.77 | | |

12.4. Mobility in soil

| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY) | | |
|---|----------------|-----------------------------|
| | Ecology - soil | Not degradable in the soil. |

O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED (5871-17-0)

Ecology - soil Not available.

100% METHANOL UNLABELED (67-56-1)

Ecology - soil Not degradable in the soil.

12.5. Results of PBT and vPvB assessment

O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY)

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

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local

environmental control regulations.

Product/Packaging disposal recommendations : Dispose of contents/container to Comply with local regulations for disposal.

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

Ecology - waste materials : Hazardous waste due to toxicity.

SECTION 14: Transport information

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

14.1. UN number

UN-No.(DOT) : 1230

14.2. UN proper shipping name

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

Hazard labels (DOT) : 3 - Flammable liquid



DOT RQ : 5000 lbs

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: No Marine pollutant

Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : 11

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

336 230

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

Transport by sea

MFAG-No : 131

Air transport

No additional information available

Environmental hazards 14.4.

Other information : No supplementary information available.

14.5. Special precautions for user

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

| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY) | | | |
|---|--|--|--|
| sted 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. | | |

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| 100% METHANOL UNLABELED (67-56-1) | | |
|---------------------------------------|---|--|
| 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

O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY)

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

| O,O-DIETHYL PHOSPHOROTHIOATE, POTASSIUM SALT UNLABELED 2 MG/ML IN METHANOL (PROD. USE ONLY) | | | | | |
|---|--|---|---|---|----------------------------------|
| U.S California - Proposi | ion 65 - Carcinogens List | No | | | |
| U.S California - Proposit | ion 65 - Developmental | Yes | S | | |
| 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 UNLABELED (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

100% METHANOL UNLABELED (67-56-1)

State or local regulations

No

- 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

Yes

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.

No

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

| Acute Tox. 3 (Dermal) | Acute toxicity (dermal) Category 3 | | |
|--|---|--|--|
| Acute Tox. 3 (Inhalation:vapour) | Acute toxicity (inhalation:vapour) Category 3 | | |
| Acute Tox. 3 (Oral) Acute toxicity (oral) Category 3 | | | |
| Eye Irrit. 2 | Serious eye damage/eye irritation Category 2 | | |

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| 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 | | |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 | | |
| 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 | | |
| H335 | May cause respiratory irritation | | |
| H370 | Causes damage to organs | | |
| R11 | Highly flammable | | |
| R36/37 | Irritating to eyes and respiratory system | | |
| 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 | | |
| F | Highly flammable | | |
| Т | Toxic | | |
| Xi | Irritant | | |

NFPA health hazard

: 2 - Materials that, under emergency conditions, can cause

temporary incapacitation or residual injury.

NFPA fire hazard

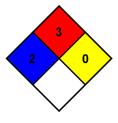
: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient

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

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