

## 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

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ULM-9498

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

# 1.1. Product identifier

Product form : Mixtures

Product name : FORMALDEHYDE UNLABELED 37 WT% IN H2O (CONTAINS 10-15% METHANOL)

Product code : ULM-9498

#### 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]

Flam. Liq. 2 H225 Acute Tox. 3 (Oral) H301 Acute Tox. 3 (Dermal) H311 Acute Tox. 3 (Inhalation) H331 Skin Corr. 1 H314 Eye Dam. 1 H318 Skin Sens. 1 H317 H341 Muta. 2 H350 Carc. 1A STOT SE 3 H335 H370 STOT SE 1

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

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

Carc.Cat.1; R45 Carc.Cat.1; R49 Muta.Cat.3; R68 T; R39/23/24/25 C; R35 Xi; R37 R43 Xi; R41

F; R11

Full text of R-phrases: see section 16

#### **GHS-US** classification

Flam. Liq. 2 H225

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Acute Tox. 3 (Oral) H301 Acute Tox. 3 (Dermal) H311 Acute Tox. 3 (Inhalation) H331 Skin Corr. 1B H314 Eye Dam. 1 H318 Skin Sens. 1 H317 Muta. 2 H341 Carc. 1B H350 STOT SE 3 H335 STOT SE 1 H370

Full text of H statements : see section 16

#### Adverse physicochemical, human health and environmental effects

Eyes, Kidney, Liver, Heart, Central nervous system. Toxic if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. Causes damage to organs (eyes, kidneys, liver, heart, central nervous system) (if inhaled, if swallowed, in contact with skin). Suspected of causing genetic defects (if inhaled, if swallowed, in contact with skin). May cause cancer (if inhaled, if swallowed, in contact with skin). May cause an allergic skin reaction. May cause respiratory irritation.

#### 2.2. Label elements

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

Hazard pictograms (CLP)









Signal word (CLP) : Danger

Hazardous ingredients : FORMALDEHYDE UNLABELED; 100% METHANOL UNLABELED

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

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

H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction

H335 - May cause respiratory irritation

H341 - Suspected of causing genetic defects (if inhaled, if swallowed, in contact with skin)

H350 - May cause cancer (if swallowed, if inhaled, in contact with skin)

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

inhaled, if swallowed, in contact with skin)

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, fume, gas, mist, spray, vapors.
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)









GHS02

GHS08

GHS06

GHS05

Signal word (GHS-US) : Dang

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

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

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage H335 - May cause respiratory irritation

H341 - Suspected of causing genetic defects (Dermal, Inhalation, oral)

H350 - May cause cancer (Dermal, Inhalation, oral)

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

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#### Inhalation, oral)

Precautionary statements (GHS-US)

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from heat, sparks, open flames. - 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, gas, mist, spray, vapors.

P261 - Avoid breathing dust, fume, gas, vapors, mist, 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.

P272 - Contaminated work clothing must not be allowed out of the workplace

P280 - Wear protective clothing, protective gloves.

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

P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting

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

P308+P313 - If exposed or concerned: Get medical advice/attention.

P310 - Immediately call a doctor, a POISON CENTER

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.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

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

P363 - Wash contaminated clothing before reuse.

P370+P378 - In case of fire: Use alcohol resistant foam, dry extinguishing powder, dry sand 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

No additional information available

### **SECTION 3: Composition/Information on ingredients**

#### 3.1. Substances

Not applicable

## 3.2. Mixtures

| Name                    | Product identifier  | %       | Classification according to<br>Directive 67/548/EEC   |
|-------------------------|---|---------|---|
| WATER UNLABELED         | (CAS-No.) 7732-18-5<br>(EC-No.) 231-791-2   | 48 - 53 | Not classified  |
| FORMALDEHYDE UNLABELED  | (CAS-No.) 50-00-0<br>(EC-No.) 200-001-8   | 37      | Carc.Cat.1; R45<br>C; R35<br>T; R23/24/25<br>R43<br>Xi; R37<br>Carc.Cat.1; R49<br>Muta.Cat.3; R68 |
| 100% METHANOL UNLABELED | (CAS-No.) 67-56-1<br>(EC-No.) 200-659-6<br>(EC Index-No.) 603-001-00-X<br>(REACH-no) 01-2119433307-44 | 15      | F; R11<br>T; R39/23/24/25<br>Xi; R36/38   |

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| Name                    | Product identifier  | %       | Classification according to Regulation (EC) No. 1272/2008 [CLP]  |
|-------------------------|---|---------|--|
| WATER UNLABELED         | (CAS-No.) 7732-18-5<br>(EC-No.) 231-791-2   | 48 - 53 | Not classified   |
| FORMALDEHYDE UNLABELED  | (CAS-No.) 50-00-0<br>(EC-No.) 200-001-8   | 37      | Flam. Gas 2, H221<br>Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 3 (Inhalation:gas),<br>H331<br>Skin Corr. 1B, H314<br>Skin Sens. 1, H317<br>Muta. 2, H341<br>Carc. 1B, H350<br>STOT SE 3, H335 |
| 100% METHANOL UNLABELED | (CAS-No.) 67-56-1<br>(EC-No.) 200-659-6<br>(EC Index-No.) 603-001-00-X<br>(REACH-no) 01-2119433307-44 | 15      | 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   |

| Name                    | Product identifier  | %       | GHS-US classification   |
|-------------------------|---------------------|---------|---|
| WATER UNLABELED         | (CAS-No.) 7732-18-5 | 48 - 53 | Not classified  |
| FORMALDEHYDE UNLABELED  | (CAS-No.) 50-00-0   | 37      | Flam. Gas 2, H221 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:gas), H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335 |
| 100% METHANOL UNLABELED | (CAS-No.) 67-56-1   | 15      | 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**

| 4.1. | Description of | of first aid | measures |
|------|----------------|--------------|----------|
|------|----------------|--------------|----------|

First-aid measures general

: If medical advice is needed, have product container or label at hand. Call a physician immediately. Evacuate danger area. 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. Immediately call a poison center or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact

Take immediately victim to hospital. If skin irritation occurs: Get medical advice/attention. Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a poison center or doctor/physician. Specific measures (see Hazard pictograms (CLP) on this label). Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. Wash with plenty of soap and water. If skin irritation or rash occurs: Gently wash with plenty of soap and water, Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see Hazard pictograms (CLP) on this label).

First-aid measures after eye contact

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion

: Never give anything by mouth to an unconscious person. Call a physician immediately. Rinse mouth. Immediately call a poison center or doctor/physician. Specific treatment (see Hazard pictograms (CLP) on this label). Do NOT induce vomiting.

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

Symptoms/effects

: Causes severe skin burns and eye damage. Suspected of causing genetic defects (in contact with skin, if inhaled, if swallowed). May cause cancer (in contact with skin, if inhaled, if swallowed). Causes damage to organs (Eyes, heart, liver, kidneys, central nervous system) (in contact with skin, if inhaled, if swallowed).

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Symptoms/effects after inhalation

Danger of serious damage to health by prolonged exposure through inhalation. Toxic if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.

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 severe skin burns and eye damage.

Symptoms/effects after eye contact

Causes serious eye damage.

Symptoms/effects after ingestion

Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

# Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### **SECTION 5: Firefighting measures**

#### **Extinguishing media**

Suitable extinguishing media : Dry powder. Dry sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

#### Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

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

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

#### Advice for firefighters 5.3.

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

Protection during firefighting Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing. Wear recommended personal protective equipment.

Other information : Use water spray to cool exposed surfaces.

#### **SECTION 6: Accidental release measures**

#### Personal precautions, protective equipment and emergency procedures

General measures

: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smokina.

#### 6.1.1. For non-emergency personnel

Emergency procedures

Wear respiratory protection. Do not breathe dust, mist, gas, spray, vapors, fume. Avoid contact with skin, eyes and clothing. Ventilate spillage area. Remove all sources of ignition. No open flames, no sparks, and no smoking. Ensure adequate air ventilation. Special attention should be given to low areas/pits where flammable vapors can accumulate.

#### 6.1.2. For emergency responders

Protective equipment

Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. **Environmental precautions**

Do not allow to enter drains or water courses. Avoid release to the environment. Prevent entry to sewers and public waters.

#### Methods and material for containment and cleaning up

For containment

: Dike and contain spill.

Methods for cleaning up

Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. This material and its container must be disposed of in a safe way, and as per local legislation

Other information

: Dispose of materials or solid residues at an authorized site.

#### Reference to other sections

For further information refer to section 13.

#### **SECTION 7: Handling and storage**

#### Precautions for safe handling

Additional hazards when processed

Precautions for safe handling

- : Handle empty containers with care because residual vapors are flammable.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosionproof equipment. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. No open flames. No smoking. Use only non-sparking tools. Do not breathe dust, fume, gas, mist, spray, vapors. Avoid breathing dust, fume, gas, mist, spray, vapors. Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated

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Hygiene measures

: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

0.3 ppm (sensitizer)

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures

 Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof Lighting equipment, ventilating equipment. Comply with applicable regulations.

Storage conditions : Store refrigerated. Do not freeze.

Incompatible materials : Heat sources.

#### 7.3. Specific end use(s)

No additional information available

**FORMALDEHYDE UNLABELED (50-00-0)** 

### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

| italy - i ortugal - OOA ACOILI | Acon realing (ppin)       | 0.5 ppm (sensitizer)   |
|--------------------------------|---------------------------|--|
| USA NIOSH                      | NIOSH REL (TWA) (ppm)     | 0.016 ppm NIOSH recommended TWA 10 hour(s)   |
| USA NIOSH                      | NIOSH REL (ceiling) (ppm) | 0.1 ppm NIOSH recommended ceiling 15 minute(s)   |
| USA OSHA                       | OSHA PEL (TWA) (ppm)      | 0.75 ppm   |
| USA OSHA                       | OSHA PEL (STEL) (ppm)     | 2 ppm 15 minute(s)   |
| USA OSHA                       | OSHA PEL (Ceiling) (ppm)  | 0.5 ppm action level   |
| 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)   |
|                                |                           |  |

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| 100% METHANOL UNLABEL | ED (67-56-1)  |   |
|-----------------------|---------------|---|
| USA OSHA              | Remark (OSHA) | The value in mg/m3 is approximate. Skin notation. |
|                       |               |   |

#### 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.

: No data available

: No data available

: No data available

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

Color No data available : No data available Odor Odor threshold : No data available No data available рΗ Relative evaporation rate (butyl acetate=1) No data available Melting point : No data available Freezing point : No data available Boiling point No data available Flash point No data available Auto-ignition temperature No data available Decomposition temperature : No data available Flammability (solid, gas) No data available Vapor pressure No data available Relative vapor density at 20 °C : No data available Relative density : No data available Solubility No data available Log Pow No data available : No data available Log Kow Viscosity, kinematic : No data available Viscosity, dynamic No data available

#### 9.2. Other information

No additional information available

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Explosive properties Oxidizing properties

**Explosion limits** 

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

#### 10.2. Chemical stability

Two years after receipt if stored as stated in "Storage" section. Re-QC after 2 years.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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#### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. Sparks. Open flame. Direct sunlight.

#### 10.5. Incompatible materials

Symptoms/effects after eye contact

Symptoms/effects after ingestion

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

#### 10.6. Hazardous decomposition products

Carbon oxides (CO, CO2). May release flammable gases. Thermal decomposition generates: Corrosive vapors.

### **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

| 11.1. Information on toxicological effects          |   |
|---|---|
| Acute toxicity                                      | : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation: Toxic if inhaled.   |
| FORMALDEHYDE UNLABELED 37 WT% IN F                  | 120 (CONTAINS 10-15% METHANOL)  |
| ATE CLP (oral)                                      | 192.308 mg/kg body weight   |
| ATE CLP (dermal)                                    | 576.923 mg/kg body weight   |
| ATE CLP (gases)                                     | 700.000 ppmV/4h   |
| ATE CLP (vapors)                                    | 3.000 mg/l/4h   |
| ATE CLP (dust, mist)                                | 0.500 mg/l/4h   |
| FORMALDEHYDE UNLABELED (50-00-0)                    |   |
| LD50 oral rat                                       | 100 mg/kg   |
| LC50 inhalation rat (mg/l)                          | 203 mg/m³   |
| ATE CLP (oral)                                      | 100.000 mg/kg body weight   |
| ATE CLP (dermal)                                    | 300.000 mg/kg body weight   |
| ATE CLP (gases)                                     | 700.000 ppmV/4h   |
| ATE CLP (vapors)                                    | 0.203 mg/l/4h   |
| ATE CLP (dust, mist)                                | 0.203 mg/l/4h   |
| 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.  |
| Skin corrosion/irritation                           | : Causes severe skin burns and eye damage.  |
| Serious eye damage/irritation                       | : Causes serious eye damage.  |
| Respiratory or skin sensitization                   | : May cause an allergic skin reaction.  |
| Germ cell mutagenicity                              | : Suspected of causing genetic defects (if inhaled, if swallowed, in contact with skin).  |
| Carcinogenicity                                     | : May cause cancer (if swallowed, if inhaled, in contact with skin).  |
| Reproductive toxicity                               | : Not classified  |
| Specific target organ toxicity – single exposure    | : May cause respiratory irritation. Causes damage to organs (central nervous system, eyes, heart, kidneys, liver) (if inhaled, if swallowed, in contact with skin).   |
| Specific target organ toxicity – repeated exposure  | : Not classified  |
| Aspiration hazard                                   | : Not classified  |
| 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. |
| Symptoms/effects after inhalation                   | : Danger of serious damage to health by prolonged exposure through inhalation. Toxic if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.   |
| 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 severe skin burns and eye damage.  |

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: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

: Causes serious eye damage.

hazard.

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## **SECTION 12: Ecological information**

#### **Toxicity**

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

| 100% METHANOL UNLABELED (67-56 | G-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

| 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**

| FORMALDEHYDE UNLABELED (50-00-0)    |   |
|-------------------------------------|---|
| Log Pow                             | 0.35  |
| 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**

| 100% METHANOL UNLABELED (67-56-1) |                             |
|-----------------------------------|-----------------------------|
| Ecology - soil                    | Not degradable in the soil. |

#### Results of PBT and vPvB assessment

## 100% METHANOL UNLABELED (67-56-1) PBT: not relevant - no registration required

# 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**

#### Waste treatment methods

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

environmental control regulations.

: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed Product/Packaging disposal recommendations

professional waste disposal service to dispose of this material.

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

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) : 2209 DOT NA no. UN2209

#### **UN proper shipping name**

Proper Shipping Name (DOT) : Formaldehyde solutions

Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

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Hazard labels (DOT) : 8 - Corrosive



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 vector prossure less than or equal to 110 kPa at 50 C (11 her at 132 F), or 130 kPa at 55

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). 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) : 154
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241

#### 14.3. Additional information

Emergency Response Guide (ERG) Number : 132

Other information : No supplementary information available.

#### **Overland transport**

Packing group (ADR) : III

Class (ADR) : 8 - Corrosive substances

Hazard identification number (Kemler No.) : 80
Classification code (ADR) : C9

Hazard labels (ADR) : 8 - Corrosive substances



Orange plates



Tunnel restriction code (ADR) : E Limited quantities (ADR) 5l Excepted quantities (ADR) : E1

#### Transport by sea

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

passenger vessel.

MFAG-No : 132

#### Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

Civil Aeronautics Law : Corrosive substances

#### 14.4. Environmental hazards

Other information : No supplementary information available.

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#### 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

| FORMALDEHYDE UNLABELED 37 WT% IN H2O (CONTAINS 10-15% METHANOL)           |  |  |
|---|--|--|
| 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          |  |
| WATER UNLABELED (7732-18-5)   |  |  |
| SARA Section 302 Threshold Planning Quantity (TPQ)                        | Not subject to reporting requirements of the United States SARA Section 302. |  |
| SARA Section 313 - Emission Reporting                                     | Not subject to reporting requirements of the United States SARA Section 313. |  |
| FORMALDEHYDE UNLABELED (50-00-0)  |  |  |

| FORMALDEHYDE UNLABELED (50-00-0)             |
|--|
| Listed on the United Ctates CADA Casting 200 |

| Listed on the United States SARA Section 302       |                    |
|--|--------------------|
| Subject to reporting requirements of United States | s SARA Section 313 |
| SARA Section 311/312 Hazard Classes                | Fire hazard        |

| DAINA OCCION 31 1/312 Hazara Olasses | i iic iiazaia                     |
|--------------------------------------|-----------------------------------|
|                                      | Immediate (acute) health hazard   |
|                                      | Delayed (chronic) health hazard   |
|                                      | Sudden release of pressure hazard |

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

| isted 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<br>Immediate (acute) health hazard<br>Delayed (chronic) health hazard |  |
| SARA Section 313 - Emission Reporting                                    | Subject to reporting requirements of United States SARA Section 313               |  |

# 15.2. International regulations

#### FORMALDEHYDE UNLABELED 37 WT% IN H2O (CONTAINS 10-15% METHANOL)

Listed on the Canadian DSL (Domestic Substances List)

#### **FORMALDEHYDE UNLABELED (50-00-0)**

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

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

# 15.3. US State regulations

| FORMALDEHYDE UNLABELED 37 WT% IN H2O (CONTAINS 10-15% METHANOL)() |     |
|---|-----|
| U.S California - Proposition 65 - Carcinogens List                | Yes |
| U.S California - Proposition 65 - Developmental Toxicity          | Yes |
| U.S California - Proposition 65 - Reproductive Toxicity - Female  | Yes |
| U.S California - Proposition 65 - Reproductive                    | Yes |

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| FORMALDEHYDE UNLABELED 37 WT% IN H2O (CONTAINS 10-15% METHANOL)() |  |   |   |                                  |
|---|--|---|---|----------------------------------|
| Toxicity - Male   | 111111111111111111111111111111111111111                        | 117 m 10 10 10 70 m 2 11 m m 10 2/()  |   |                                  |
| 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 |   |                                  |
| WATER UNLABELED (773  | 2-18-5)  |   |   |                                  |
| U.S California -<br>Proposition 65 -<br>Carcinogens List          | U.S California -<br>Proposition 65 -<br>Developmental Toxicity | U.S California -<br>Proposition 65 -<br>Reproductive Toxicity -<br>Female   | U.S California -<br>Proposition 65 -<br>Reproductive Toxicity -<br>Male | No significant risk level (NSRL) |
| No  | No   | No  | No  |                                  |
| FORMALDEHYDE UNLAB  | FORMALDEHYDE UNLABELED (50-00-0)                               |   |   |                                  |
| U.S California -<br>Proposition 65 -<br>Carcinogens List          | U.S California -<br>Proposition 65 -<br>Developmental Toxicity | U.S California -<br>Proposition 65 -<br>Reproductive Toxicity -<br>Female   | U.S California -<br>Proposition 65 -<br>Reproductive Toxicity -<br>Male | No significant risk level (NSRL) |
| Yes   | No   | No  | No  |                                  |
| 100% METHANOL UNLABELED (67-56-1)                                 |  |   |   |                                  |
| U.S California -<br>Proposition 65 -<br>Carcinogens List          | U.S California -<br>Proposition 65 -<br>Developmental Toxicity | U.S California -<br>Proposition 65 -<br>Reproductive Toxicity -<br>Female   | U.S California -<br>Proposition 65 -<br>Reproductive Toxicity -<br>Male | No significant risk level (NSRL) |
| No  | Yes  | No  | No  |                                  |

#### WATER UNLABELED (7732-18-5)

### State or local regulations

- U.S. Pennsylvania RTK (Right to Know) List
- U.S. New Jersey Right to Know Hazardous Substance List

# FORMALDEHYDE UNLABELED (50-00-0)

#### 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

# 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:

| Acute Tox. 3 (Dermal)            | Acute toxicity (dermal) Category 3            |
|----------------------------------|---|
| Acute Tox. 3 (Inhalation)        | Acute toxicity (inhalation) Category 3        |
| Acute Tox. 3 (Inhalation:gas)    | Acute toxicity (inhalation:gas) Category 3    |
| Acute Tox. 3 (Inhalation:vapour) | Acute toxicity (inhalation:vapour) Category 3 |
| Acute Tox. 3 (Oral)              | Acute toxicity (oral) Category 3              |
| Carc. 1A                         | Carcinogenicity Category 1A                   |
| Carc. 1B                         | Carcinogenicity Category 1B                   |

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| Eye Dam. 1    | Serious eye damage/eye irritation Category 1   |
|---------------|--|
| Eye Irrit. 2  | Serious eye damage/eye irritation Category 2   |
| Flam. Gas 2   | Flammable gases Category 2   |
| Flam. Liq. 2  | Flammable liquids Category 2   |
| Muta. 2       | Germ cell mutagenicity Category 2  |
| Skin Corr. 1  | Skin corrosion/irritation Category 1   |
| Skin Corr. 1B | Skin corrosion/irritation Category 1B  |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2   |
| Skin Sens. 1  | Skin sensitization, Category 1   |
| STOT SE 1     | Specific target organ toxicity (single exposure) Category 1  |
| STOT SE 3     | Specific target organ toxicity (single exposure) Category 3  |
| H221          | Flammable gas  |
| H225          | Highly flammable liquid and vapor  |
| H301          | Toxic if swallowed   |
| H311          | Toxic in contact with skin   |
| H314          | Causes severe skin burns and eye damage  |
| H315          | Causes skin irritation   |
| H317          | May cause an allergic skin reaction  |
| H318          | Causes serious eye damage  |
| H319          | Causes serious eye irritation  |
| H331          | Toxic if inhaled   |
| H335          | May cause respiratory irritation   |
| H341          | Suspected of causing genetic defects   |
| H350          | May cause cancer   |
| H370          | Causes damage to organs  |
| R11           | Highly flammable   |
| R23/24/25     | Toxic by inhalation, in contact with skin and if swallowed   |
| R35           | Causes severe burns  |
| R36/38        | Irritating to eyes and skin  |
| R37           | Irritating to respiratory system   |
| R39/23/24/25  | Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed |
| R41           | Risk of serious damage to eyes   |
| R43           | May cause sensitization by skin contact  |
| R45           | May cause cancer   |
| R49           | May cause cancer by inhalation   |
| R68           | Possible risk of irreversible effects  |
| С             | Corrosive  |
| F             | Highly flammable   |
| T             | Toxic  |
| Xi            | Irritant   |
|               |  |

NFPA health hazard

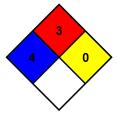
: 4 - Materials that, under emergency conditions, can be lethal.

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 : 4 Severe Hazard - Life-threatening, major or permanent damage may result from single or

repeated overexposures

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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