



ACETALDEHYDE (1,2-13C2, 99%)

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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Version: 6.2

CLM-173

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

1.1. Product identifier

| | |
|-----------------------|--------------------------------------|
| Product form | : Substance |
| Substance name | : ACETALDEHYDE (1,2-13C2, 99%) |
| EC Index-No. | : 605-003-00-6 (Unlabeled) |
| EC-No. | : 200-836-8 (Unlabeled) |
| CAS-No. | : 1632-98-0 |
| REACH registration No | : 01-2119918285-36 |
| Product code | : CLM-173 |
| Formula | : *CH3*CHO |
| Synonyms | : Ethanal / Tetradeuteroacetaldehyde |

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. 1 H224
Eye Irrit. 2 H319
Carc. 2 H351
STOT SE 3 H335

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+; R12
Xi; R36/37
Carc.Cat.3; R40
R52

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 1 H224
Eye Irrit. 2A H319
Carc. 2 H351
STOT SE 3 H335
Aquatic Acute 3 H402

Full text of H statements : see section 16

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Adverse physicochemical, human health and environmental effects

Blood, Kidney, Lungs, Cardiovasular system, Liver, Central nervous system.

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H224 - Extremely flammable liquid and vapour
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer (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
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective clothing, protective gloves.

GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H224 - Extremely flammable liquid and vapour
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer (Dermal, Inhalation, oral)
H402 - Harmful to aquatic life

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, 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.
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective clothing, protective gloves.
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
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a doctor, a POISON CENTER if you feel unwell
P337+P313 - If eye irritation persists: Get medical advice/attention.
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

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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

| Name | Product identifier | % | Classification according to Directive 67/548/EEC |
|------------------------------|---|-----|--|
| ACETALDEHYDE (1,2-13C2, 99%) | (CAS-No.) 1632-98-0 (EC-No.) 200-836-8 (Unlabeled) (EC Index-No.) 605-003-00-6 (Unlabeled) (REACH-no) 01-2119918285-36 | 100 | F+; R12 Xi; R36/37 Carc.Cat.3; R40 R52 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|------------------------------|---|-----|--|
| ACETALDEHYDE (1,2-13C2, 99%) | (CAS-No.) 1632-98-0 (EC-No.) 200-836-8 (Unlabeled) (EC Index-No.) 605-003-00-6 (Unlabeled) (REACH-no) 01-2119918285-36 | 100 | Flam. Liq. 1, H224 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 |

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

| Name | Product identifier | % | GHS-US classification |
|--|---------------------|-----|--|
| ACETALDEHYDE (1,2-13C2, 99%) (Main constituent) | (CAS-No.) 1632-98-0 | 100 | Flam. Liq. 1, H224 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335 Aquatic Acute 3, H402 |

Full text of H-phrases: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area. |
| First-aid measures after inhalation | : When symptoms occur: go into open air and ventilate suspected area. If not breathing, give artificial respiration. Get medical advice/attention. |
| First-aid measures after skin contact | : Wash with plenty of soap and water. Get immediate medical advice/attention. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. |
| First-aid measures after ingestion | : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention. |

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

| | |
|-------------------------------------|---|
| Symptoms/effects | : Suspected of causing cancer (in contact with skin, if inhaled, if swallowed). |
| Symptoms/effects after inhalation | : May be harmful if inhaled. May cause respiratory irritation. |
| Symptoms/effects after skin contact | : May be harmful in contact with skin. May cause moderate irritation. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |
| Symptoms/effects after ingestion | : May be harmful if swallowed. |

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|------------------------------------|
| Suitable extinguishing media | : Dry sand. Dry powder. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

| | |
|------------------|---|
| Fire hazard | : Extremely flammable liquid and vapour. |
| Explosion hazard | : May explode when heated. Closed containers may rupture and explode during runaway polymerization. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. |
| Reactivity | : Vapors may form explosive mixture with air. |

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5.3. Advice for firefighters

- Firefighting instructions : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.
- Other information : Use water spray to cool exposed surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : At or above flash point, vapors present may burn in open or explode if confined when mixed with air and exposed to ignition source. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

6.1.1. For non-emergency personnel

- Emergency procedures : Use personal protective equipment as required. Ensure adequate air ventilation. Avoid breathing vapors, mist, gas. Eliminate all ignition sources if safe to do so. Evacuate danger area. Evacuate unnecessary personnel. 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

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

6.3. Methods and material for containment and cleaning up

- For containment : For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Collect spillage. Clean up any spills as soon as possible, using an absorbent material to collect it. Dike and contain spill.
- Methods for cleaning up : 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.

6.4. Reference to other sections

- For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Avoid all eye and skin contact and do not breathe vapor and mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take precautionary measures to prevent the formation of static electricity.
- Precautions for safe handling : Provide adequate ventilation to minimize dust and/or vapor concentrations.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Store in a well-ventilated place. Keep container tightly closed.
- Storage conditions : Store refrigerated (-5 °C to 5 °C). Protect from light.

7.3. Specific end use(s)

- No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| ACETALDEHYDE (1,2-13C2, 99%) (1632-98-0) | | |
|--|-------------------------------------|---|
| Italy - Portugal - USA ACGIH | ACGIH Ceiling (ppm) | 25 ppm USA. ACGIH Threshold Limit Values (TLV) |
| Italy - Portugal - USA ACGIH | Remark (ACGIH) | Eye & Upper Respiratory Tract irritation. Adopted values or notations enclosed are those for which changes are proposed in the NIC. See Notice of Intended Changes (NIC). Potential Occupational Carcinogen - See Appendix A, Appendix C. Confirmed animal carcinogen with unknown relevance to humans. |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 360 mg/m ³ 180 mg/m ³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |

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| ACETALDEHYDE (1,2-13C2, 99%) (1632-98-0) | | |
|--|---|--|
| USA OSHA | OSHA PEL (TWA) (ppm) | 200 ppm 100 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| USA OSHA | OSHA PEL (STEL) (mg/m ³) | 270 mg/m ³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| USA OSHA | OSHA PEL (STEL) (ppm) | 150 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| USA OSHA | OSHA PEL (Ceiling) (mg/m ³) | 45 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| USA OSHA | OSHA PEL (Ceiling) (ppm) | 25 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| USA OSHA | Remark (OSHA) | The value in mg/m ³ is approximate. |

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

| | |
|---|---|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Molecular mass | : 46.04 g/mol (Labeled) |
| Color | : Colorless. |
| Odor | : No data available |
| Odor threshold | : No data available |
| pH | : 5 at 20 °C (68 °F) |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : -125 °C (-193 °F) - lit. |
| Freezing point | : No data available |
| Boiling point | : 21 °C (70 °F) - lit. |
| Flash point | : -40 °C (-40 °F) - Closed cup |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : 1008.5 hPa (756.4 mmHg) at 20 °C (68 °F); 1,451 hPa (1,088 mmHg) at 30 °C (86 °F); 2,660 hPa (1,995 mmHg) at 55 °C (131 °F) |
| Relative vapor density at 20 °C | : 1.52 - (Air = 1.0) |
| Relative density | : No data available |
| Specific gravity / density | : 0.785 g/cm ³ at 25 °C (77 °F) |
| Solubility | : Water: Completely miscible |
| Log Pow | : 0.5 |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

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Explosion limits : 4 - 60 % (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

Six months after receipt if stored as stated in "Storage" section. Re-QC after six months.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Air contact. Heat. Open flame. Sparks.

10.5. Incompatible materials

ammonia. Amines. Acids. Bases. Nitric acid. Oxidizing agent. Oxygen. Peroxides. Reducing agents. Sodium hydroxide. Oxidized rapidly and exothermically by air, to acetic acid, Acid anhydrides, Alcohols, Halogens, Ketones, Phenol, Hydrogen cyanide (hydrocyanic acid).

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| ACETALDEHYDE (1,2-13C2, 99%) (1632-98-0) | |
|--|-------------------------------|
| LD50 dermal rabbit | 3540 mg/kg |
| ATE CLP (oral) | 675.000 mg/kg body weight |
| ATE CLP (dermal) | 3540.000 mg/kg body weight |
| Additional information | LOEL - Oral - Rat - 675 mg/kg |

Skin corrosion/irritation : Not classified

Skin
rabbit
mild skin irritation
(OECD 404 method)
pH: 5 at 20 °C (68 °F)

Serious eye damage/irritation : Causes serious eye irritation.

pH: 5 at 20 °C (68 °F)

Respiratory or skin sensitization : Maximisation Test . Guinea pig. Did not cause sensitization on laboratory animals. (OECD 406 method)

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected human carcinogen(0). IARC group. Possibly carcinogenic to humans. National Toxicology Program (NTP) : Reasonably anticipated to be Human Carcinogen

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : May cause respiratory irritation.

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. Blurred vision. Unconsciousness. Headache. Nausea. Pulmonary edema. Vomiting. The effects may be delayed. Convulsions. Shortness of breath. Coughing, sneezes. Liver - Irregularities - Based on Human Evidence.

IARC group : 2B

Symptoms/effects after inhalation : May be harmful if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : May be harmful in contact with skin. May cause moderate irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed.

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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.
- Ecology - water : Harmful to aquatic life.

| ACETALDEHYDE (1,2-13C2, 99%) (1632-98-0) | |
|--|--|
| LC50 fish 1 | 31 mg/l Pimephales promelas (fathead minnow) - 96 h |
| EC50 Daphnia 1 | 57.4 mg/l Immobilization - Daphnia magna (Water flea) - 48 h (OECD method 202) |
| EC50 other aquatic organisms 1 | > 100 g/l Growth inhibition - Pseudokirchneriella subcapitata (green algae) - 24 h (OECD method 201) |
| Additional information | RTECS no AB1925000 |

12.2. Persistence and degradability

| ACETALDEHYDE (1,2-13C2, 99%) (1632-98-0) | |
|--|--|
| Persistence and degradability | May cause long-term adverse effects in the environment. Biotic/Aerobic - Exposure time 14 d. |
| Biodegradation | 80 % - Readily biodegradable. (OECD 301C method) |

12.3. Bioaccumulative potential

| ACETALDEHYDE (1,2-13C2, 99%) (1632-98-0) | |
|--|-----|
| Log Pow | 0.5 |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

- Other adverse effects : Disposal must be done according to official regulations. Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.
- Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
- Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

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

14.1. UN number

- UN-No.(DOT) : 1089
- DOT NA no. UN1089

14.2. UN proper shipping name

- Proper Shipping Name (DOT) : Acetaldehyde
- Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
- Hazard labels (DOT) : 3 - Flammable liquid



- Packing group (DOT) : I - Great Danger

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| | |
|---|---|
| DOT Special Provisions (49 CFR 172.102) | : A3 - For combination packaging, if glass inner packaging (including ampoules) are used, they must be packed with absorbent material in tightly closed metal receptacles before packing in outer packaging. B16 - The lading must be completely covered with nitrogen, inert gas or other inert materials. T11 - 6 178.274(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. TP7 - The vapor space must be purged of air by nitrogen or other means. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : None |
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : 201 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : 243 |
| DOT RQ | : 1000 lbs. |
| Marine pollutant | : No |

14.3. Additional information

| | |
|---------------------------------------|--|
| Emergency Response Guide (ERG) Number | : 129 |
| Other information | : No supplementary information available. |
| Special transport precautions | : IATA/DOT: Not permitted on passenger aircraft. |

Overland transport

| | |
|---|-------------------------|
| Packing group (ADR) | : I |
| Class (ADR) | : 3 - Flammable liquid |
| Hazard identification number (Kemler No.) | : 33 |
| Classification code (ADR) | : F1 |
| Hazard labels (ADR) | : 3 - Flammable liquids |



| | |
|---------------|--|
| Orange plates | : An orange rectangular label with a black border. It is divided into two horizontal sections. The top section contains the number '33' and the bottom section contains the number '1089'. |
|---------------|--|

| | |
|-------------------------------|-------|
| Tunnel restriction code (ADR) | : D/E |
| Limited quantities (ADR) | : 0 |
| Excepted quantities (ADR) | : E0 |

Transport by sea

| | |
|-----------------------------|---|
| DOT Vessel Stowage Location | : E - 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, but is prohibited from carriage on passenger vessels in which the limiting number of passengers is exceeded. |
| MFAG-No | : 129 |

Air transport

| | |
|--|---------------------|
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : Forbidden |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 30 L |
| Civil Aeronautics Law | : Flammable liquids |

14.4. Environmental hazards

| | |
|-------------------|---|
| Other information | : No supplementary information available. |
|-------------------|---|

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14.5. Special precautions for user

Special transport precautions : IATA/DOT: Not permitted on passenger aircraft.

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

| ACETALDEHYDE (1,2-13C2, 99%) (1632-98-0) | |
|--|---|
| 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

| ACETALDEHYDE (1,2-13C2, 99%) (1632-98-0) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

15.2.1. National regulations

No additional information available

15.3. US State regulations

| ACETALDEHYDE (1,2-13C2, 99%)(1632-98-0) | |
|---|---|
| U.S. - California - Proposition 65 - Carcinogens List | Yes |
| U.S. - California - Proposition 65 - Developmental Toxicity | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No |
| State or local regulations | RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - Pennsylvania - RTK (Right to Know) List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List |

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:

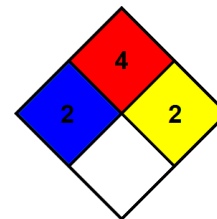
| | |
|--------------|---|
| Carc. 2 | Carcinogenicity Category 2 |
| Eye Irrit. 2 | Serious eye damage/eye irritation Category 2 |
| Flam. Liq. 1 | Flammable liquids Category 1 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H224 | Extremely flammable liquid and vapour |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H351 | Suspected of causing cancer |
| R12 | Extremely flammable |
| R36/37 | Irritating to eyes and respiratory system |
| R40 | Limited evidence of a carcinogenic effect |
| R52 | Harmful to aquatic organisms |
| F+ | Extremely flammable |
| Xi | Irritant |

ACETALDEHYDE (1,2-13C2, 99%) CLM-173

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

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.
- NFPA reactivity : 2 - Materials that readily undergo violent chemical change at elevated temperatures and pressures.



Hazard Rating

- Health : 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability : 4 Severe Hazard
- Physical : 2 Moderate Hazard

CIL Substance 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