



ENDRIN ALDEHYDE (13C12, 99%)

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 18/03/2011

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Version: 5

CLM-4815

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

1.1. Product identifier

Product form : Substance
Substance name : ENDRIN ALDEHYDE (13C12, 99%)
CAS No : 7421-93-4 (Unlabeled)
Product code : CLM-4815
Formula : *C12H8Cl6O
Other means of identification : Also applicable to:
CLM-4815-50 (13C12, 99%) >90% CHEMICAL PURITY

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]

Acute Tox. 4 (Oral) H302

Aquatic Chronic 4 H413

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R22

R53

Full text of R-phrases: see section 16

Classification (GHS-US)

Acute Tox. 4 (Oral) H302

Aquatic Chronic 4 H413

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H302 - Harmful if swallowed
H413 - May cause long lasting harmful effects to aquatic life

Precautionary statements (CLP)

: P264 - Wash Both hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell
P330 - Rinse mouth
P501 - Dispose of contents/container to Comply with applicable regulations.

GHS-US labeling

Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US)

: Warning

Hazard statements (GHS-US)

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P330 - If swallowed, rinse mouth
P501 - Dispose of contents/container to Comply with applicable regulations.

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 |
|--|--------------------------------|-----|--|
| ENDRIN ALDEHYDE (13C12, 99%) (Main constituent) | (CAS No) 7421-93-4 (Unlabeled) | 100 | Xn; R22 R53 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|--------------------------------|-----|---|
| ENDRIN ALDEHYDE (13C12, 99%) (Main constituent) | (CAS No) 7421-93-4 (Unlabeled) | 100 | Acute Tox. 4 (Oral), H302 Aquatic Chronic 4, H413 |

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

| Name | Product identifier | % | Classification (GHS-US) |
|--|--------------------------------|-----|--|
| ENDRIN ALDEHYDE (13C12, 99%) (Main constituent) | (CAS No) 7421-93-4 (Unlabeled) | 100 | Acute Tox. 4 (Oral), H302 Aquatic Chronic 4, H413 |

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

: Move out of dangerous area. Consult a physician and show this safety data sheet.

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| | |
|---------------------------------------|---|
| First-aid measures after inhalation | : If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician. |
| First-aid measures after skin contact | : Wash with soap and plenty of water. Consult a physician. |
| First-aid measures after eye contact | : Flush eyes with water as a precaution. |
| First-aid measures after ingestion | : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |

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

| | |
|--------------------------------------|---|
| Symptoms/injuries after inhalation | : May be harmful if inhaled. May cause respiratory tract irritation. |
| Symptoms/injuries after skin contact | : May be harmful if absorbed through skin. May cause skin irritation. |
| Symptoms/injuries after eye contact | : Contact may cause eye irritation. |
| Symptoms/injuries after ingestion | : 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 | : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. |
|------------------------------|---|

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|--|
| Emergency procedures | : Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust. |
|----------------------|--|

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

| | |
|-----------------|--|
| For containment | : Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. |
|-----------------|--|

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-----------------------------------|---|
| Additional hazards when processed | : Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. |
| Hygiene measures | : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. |

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

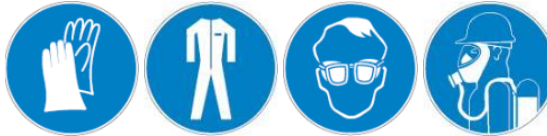
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8.2. Exposure controls

Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : When appropriate, use NIOSH/CEN approved respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Solid |
| Appearance | : Solid. |
| Molecular mass | : 392.82 (Labeled) |
| Color | : white. |
| Odor | : No data available. |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : 151.0 °C (303.8 °F) |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Self 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 | : Insoluble in water. Water: insoluble |
| Log Pow | : 5.60 |
| 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 |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable if stored under recommended conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong oxidizing agents.

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10.6. Hazardous decomposition products

carbon oxides. Hydrogen chloride gas.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

| ENDRIN ALDEHYDE (13C12, 99%) (7421-93-4 (Unlabeled)) | |
|--|---------------------------|
| LD50 oral rat | 500 mg/kg |
| ATE (oral) | 500.000 mg/kg body weight |

| | |
|---|---|
| Skin corrosion/irritation | : Not classified No data available |
| Serious eye damage/irritation | : Not classified No data available |
| Respiratory or skin sensitization | : Not available No data available |
| Germ cell mutagenicity | : Not available |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not available |
| Specific target organ toxicity (single exposure) | : Not classified No data available |
| Specific target organ toxicity (repeated exposure) | : Not classified No data available |
| Aspiration hazard | : Not classified |
| Potential Adverse human health effects and symptoms | : To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |
| Symptoms/injuries after inhalation | : May be harmful if inhaled. May cause respiratory tract irritation. |
| Symptoms/injuries after skin contact | : May be harmful if absorbed through skin. May cause skin irritation. |
| Symptoms/injuries after eye contact | : Contact may cause eye irritation. |
| Symptoms/injuries after ingestion | : Toxic if swallowed. |

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

| ENDRIN ALDEHYDE (13C12, 99%) (7421-93-4 (Unlabeled)) | |
|--|----------------|
| Persistence and degradability | Not available. |

12.3. Bioaccumulative potential

| ENDRIN ALDEHYDE (13C12, 99%) (7421-93-4 (Unlabeled)) | |
|--|----------------|
| Log Pow | 5.60 |
| Bioaccumulative potential | Not available. |

12.4. Mobility in soil

| ENDRIN ALDEHYDE (13C12, 99%) (7421-93-4 (Unlabeled)) | |
|--|----------------|
| Ecology - soil | Not available. |

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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. |
| Waste 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. |

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Ecology - waste materials

: Dispose of as unused product.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information

: No supplementary information available.

Special transport precautions

: Not dangerous goods.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

14.4. Environmental hazards

Other information

: No supplementary information available.

14.5. Special precautions for user

Special transport precautions

: Not dangerous goods.

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

ENDRIN ALDEHYDE (13C12, 99%) (7421-93-4 (Unlabeled))

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard

15.2. International regulations

CANADA

ENDRIN ALDEHYDE (13C12, 99%) (7421-93-4 (Unlabeled))

Not listed on the Canadian DSL (Domestic Substances List) inventory.

15.2.1. National regulations

No additional information available

15.3. US State regulations

ENDRIN ALDEHYDE (13C12, 99%)(7421-93-4 (Unlabeled))

State or local regulations

U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - New Jersey - Right to Know Hazardous Substance List
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

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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.

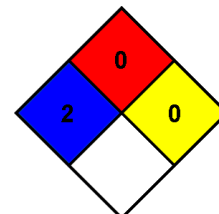
Full text of R-, H- and EUH-phrases::

| | |
|---------------------|--|
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Aquatic Chronic 4 | Hazardous to the aquatic environment - Chronic Hazard Category 4 |
| H302 | Harmful if swallowed |
| H413 | May cause long lasting harmful effects to aquatic life |
| R22 | Harmful if swallowed |
| R53 | May cause long-term adverse effects in the aquatic environment |
| Xn | Harmful |

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 0 Minimal Hazard

Physical : 0 Minimal Hazard

CIL Multi-Solvent Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product