

Safety Data Sheet

acc. to OSHA Hazard Communication Standard (29 CFR 1910.1200)

Printing date 03/03/2015

Reviewed on 11/26/2014

1 Identification

- **Product identifier**
- **Trade name:** Acetaldehyde
- **Article number:** 221485
- **CAS Number:**
75-07-0
- **EC number:**
200-836-8
- **Index number:**
605-003-00-6
- **Application of the substance / the mixture** Laboratory chemicals for research and development
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
BeanTown Chemical
9 Sagamore Park Road
Hudson, NH 03051
USA
-
- Phone: (603) 402-2234
Fax: (603) 402-9713
Email: technical@beantownchem.com
www.beantownchem.com
- **Information department:** Technical Support Department
- **Emergency telephone number:**
During normal operating hours, please call (603) 402-2234
After hours, please call Chemtrec at (800) 424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 1 H224 Extremely flammable liquid and vapour.

.....



GHS06 Skull and crossbones

Acute Tox. 1 H330 Fatal if inhaled.

.....



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

.....



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

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- **Label elements**

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS06 GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**
acetaldehyde

- **Hazard statements**

Extremely flammable liquid and vapour.

Harmful if swallowed.

Fatal if inhaled.

Causes serious eye irritation.

Suspected of causing cancer.

May cause respiratory irritation.

- **Precautionary statements**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment is urgent (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

75-07-0 acetaldehyde

- **Identification number(s)**

- **EC number:** 200-836-8

- **Index number:** 605-003-00-6

4 First-aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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- Remove breathing apparatus only after contaminated clothing have been completely removed.*
- In case of irregular breathing or respiratory arrest provide artificial respiration.*
- **After inhalation:**
 - Supply fresh air or oxygen; call for doctor.*
 - In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:**
 - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*
- **After swallowing:** *Immediately call a doctor.*
- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*
 - **Indication of any immediate medical attention and special treatment needed** *No further relevant information available.*

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** *CO2, sand, extinguishing powder. Do not use water.*
- **For safety reasons unsuitable extinguishing agents:** *Water with full jet*
- **Special hazards arising from the substance or mixture** *No further relevant information available.*
- **Advice for firefighters**
- **Protective equipment:** *Mouth respiratory protective device.*

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Wear protective equipment. Keep unprotected persons away.*
- **Environmental precautions:**
 - Do not allow product to reach sewage system or any water course.*
 - Prevent seepage into sewage system, workpits and cellars.*
 - Inform respective authorities in case of seepage into water course or sewage system.*
- **Methods and material for containment and cleaning up:**
 - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).*
 - Dispose contaminated material as waste according to item 13.*
 - Ensure adequate ventilation.*
 - Do not flush with water or aqueous cleansing agents*
- **Reference to other sections**
 - See Section 7 for information on safe handling.*
 - See Section 8 for information on personal protection equipment.*
 - See Section 13 for disposal information.*

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
 - Ensure good ventilation/exhaustion at the workplace.*
 - Open and handle receptacle with care.*
 - Only handle and refill product in closed systems.*
 - Prevent formation of aerosols.*
- **Information about protection against explosions and fires:**
 - Keep ignition sources away - Do not smoke.*

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*Protect against electrostatic charges.**Keep respiratory protective device available.***· Conditions for safe storage, including any incompatibilities****· Storage:****· Requirements to be met by storerooms and receptacles:** *Store in a cool location.***· Information about storage in one common storage facility:** *Not required.***· Further information about storage conditions:***Keep receptacle tightly sealed.**Do not gas tight seal receptacle.**Store in cool, dry conditions in well sealed receptacles.**Protect from heat and direct sunlight.***· Specific end use(s)** *No further relevant information available.*

8 Exposure controls/personal protection

· Additional information about design of technical systems:*Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute***· Control parameters****· Components with limit values that require monitoring at the workplace:****75-07-0 acetaldehyde**PEL Long-term value: 360 mg/m³, 200 ppm

REL See Pocket Guide Apps. A and C

TLV Ceiling limit value: 45 mg/m³, 25 ppm**· Additional information:** *The lists that were valid during the creation were used as basis.***· Exposure controls****· Personal protective equipment:****· General protective and hygienic measures:***Keep away from foodstuffs, beverages and feed.**Immediately remove all soiled and contaminated clothing.**Wash hands before breaks and at the end of work.**Store protective clothing separately.**Avoid contact with the eyes.**Avoid contact with the eyes and skin.***· Breathing equipment:***In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.***· Protection of hands:***Protective gloves**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.**Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation***· Material of gloves***The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.***· Penetration time of glove material***The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

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· Eye protection: Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Color:	Colorless
Odor:	Unpleasant
Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	-125 °C (-193 °F)
Boiling point/Boiling range:	21 °C (70 °F)

· Flash point: -40 °C (-40 °F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 140 °C (284 °F)

· Decomposition temperature: Not determined.

· Auto igniting: Not determined.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower:	4 Vol %
Upper:	57 Vol %

· Vapor pressure at 20 °C (68 °F): 1007 hPa (755 mm Hg)

· Density at 20 °C (68 °F): 0.785 g/cm³ (6.551 lbs/gal)

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Organic solvents: 0.0 %

· Other information: No further relevant information available.

10 Stability and reactivity

· Reactivity

· Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

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- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
75-07-0 acetaldehyde		
Oral	LD50	661 mg/kg (rat)
Inhalative	LC50/4 h	37 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
75-07-0	acetaldehyde	I

· NTP (National Toxicology Program)		
75-07-0	acetaldehyde	R

· OSHA-Ca (Occupational Safety & Health Administration)		
Substance is not listed.		

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|-----------------------------------------------------------------------------------|----------------------------|
| · UN-Number | |
| · DOT, IMDG, IATA | UN1089 |
| · UN proper shipping name | |
| · DOT | Acetaldehyde |
| · IMDG, IATA | ACETALDEHYDE |
| · Transport hazard class(es) | |
| · DOT, IMDG, IATA | |
| · Class | 3 Flammable liquids |
| · Packing group | |
| · DOT, IMDG, IATA | I |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Warning: Flammable liquids |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | UN1089, Acetaldehyde, 3, I |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

Substance is not listed.

- **Section 313 (Specific toxic chemical listings):**

Substance is listed.

- **TSCA (Toxic Substances Control Act):**

Substance is listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

Substance is listed.

- **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

- **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

- **Chemicals known to cause developmental toxicity:**

Substance is not listed.

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· **Carcinogenic categories**· **EPA (Environmental Protection Agency)**

75-07-0 acetaldehyde

B2

· **TLV (Threshold Limit Value established by ACGIH)**

75-07-0 acetaldehyde

A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is listed.

· **RTECS**

Substance is not listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **NFPA ratings (scale 0-4)**

Health = 4

Fire = 4

Reactivity = 0

· **HMIS ratings (scale 0-4)**

Health = *4

Fire = 4

Reactivity = 0

· **Department issuing SDS:** Technical Support Department· **Contact:** Technical Support Department· **Date of preparation / last revision** 03/03/2015 / -· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 1: Flammable liquids, Hazard Category 1

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 1: Acute toxicity, Hazard Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

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