Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 09/22/2004  Reviewed on 08/16/2004

1 Identification of substance:

- Product details:

  - Product name: Acetaldehyde

  - Stock number: 33244

2 Manufacturer/Supplier:

Alfa Aesar, A Johnson Matthey Company
Johnson Matthey Catalog Company, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Emergency Phone: (978) 521-6300
CHEMTREC: (800) 424-9300
Web Site: www.alfa.com

3 Information Department:

Health, Safety and Environmental
Department

4 Emergency information:

During normal hours the Health, Safety and Environmental
Department. After normal hours call Chemtrec at (800) 424-9300.

2 Composition/Data on components:

- Chemical characterization:

  Description: (CAS#)

  Acetaldehyde (CAS# 75-07-0), 100%

  Identification number(s):

  - EINECS Number: 200-836-8
  - EU Number: 605-003-00-6
resulting gases:
In case of fire, the following can be released:
Carbon monoxide (CO)

- **Protective equipment:**

  Wear self-contained respirator.
  Wear fully protective impervious suit.

- **6 Accidental release measures**

  - **Person-related safety precautions:**

    Wear protective equipment. Keep unprotected persons away.
    Ensure adequate ventilation
    Keep away from ignition sources

  - **Measures for environmental protection:**

    Do not allow material to be released to the environment without proper governmental permits.

  - **Measures for cleaning/collecting:**

    Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
    Dispose contaminated material as waste according to item 13.
    Ensure adequate ventilation.
    Keep away from ignition sources.

  - **Additional information:**

    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**

  - **Information for safe handling:**

    Handle under dry protective gas.
    Keep container tightly sealed.
    Store in cool, dry place in tightly closed containers.
    Keep away from heat and direct sunlight.
    Ensure good ventilation at the workplace.
    Open and handle container with care.

  - **Information about protection against explosions and fires:**

    Keep ignition sources away.
    Protect against electrostatic charges.
    Fumes can combine with air to form an explosive mixture.

  - **Storage**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

- **Breathing equipment:**
  Use suitable respirator when high concentrations are present.
- **Protection of hands:** Impervious gloves
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

- **9 Physical and chemical properties:**
  - **General Information**

  - **Form:** Liquid
  - **Color:** Colorless
  - **Odor:** Pungent

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<tr>
<th>Value/Range</th>
<th>Unit</th>
<th>Method</th>
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<td>-125 °C</td>
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- **Change in condition**

- **Melting point/Melting range:**
  -125 °C

- **Boiling point/Boiling range:**
  20.8 °C

- **Sublimation temperature / start:** Not determined

- **Flash point:**
  -40 °C

- **Ignition temperature:**
  174 °C

- **Decomposition temperature:** Not determined

- **Danger of explosion:**
  Product is not explosive. However, formation of explosive
LC50/4H: 13300 ppm/4H (rat)

- **Primary irritant effect:**
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.

- **Other information (about experimental toxicology):**
  Tumorigenic effects have been observed on tests with laboratory animals.

- **Subacute to chronic toxicity:**
  Acetaldehyde is irritating and causes narcosis and other CNS effects. It is also an experimental teratogen and tumorigen. May cause photosensitivity. Exposure to light can result in allergic skin reactions such as edematous swelling and dermatitis. May cause discoloration of the skin.

- **Additional toxicological information:**
  To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
  EPA-B2: Probable human carcinogen, sufficient evidence from animal studies; inadequate evidence or no data from epidemiologic studies.
  IARC-2B: Possibly carcinogenic to humans: limited evidence in humans in the absence of sufficient evidence in experimental animals.
  NTP-2: Reasonably anticipated to be a carcinogen: limited evidence from studies in humans or sufficient evidence from studies in experimental animals.
  ACGIH A3: Animal carcinogen: Agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) not considered relevant to worker exposure.
  Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.
  The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.

- **12 Ecological information:**

- **General notes:**
  Do not allow material to be released to the environment without proper governmental permits.
• UN Number: 1089
• Packaging group: I
• Proper shipping name: Acetaldehyde

• Air transport ICAO-TI and IATA-DGR:
• ICAO/IATA Class: 3
• UN/ID Number: 1089
• Packaging group: I
• Proper shipping name: Acetaldehyde

15 Regulations

• Product related hazard informations:

• Hazard symbols:
Xn Harmful F+ Extremely flammable

• Risk phrases:
12 Extremely flammable.
36/37 Irritating to eyes and respiratory system.
40 Limited evidence of a carcinogenic effect.

• Safety phrases:
16 Keep away from sources of ignition - No smoking.
33 Take precautionary measures against static discharges.
36/37 Wear suitable protective clothing and gloves.

• National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
This product contains a chemical known to the state of California to cause cancer or reproductive toxicity.
All components of this product are listed on the Canadian Domestic Substances List (DSL).

• Information about limitation of use: