Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 08/13/2004
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1 Identification of substance:

Product details:

Product name: Methylcyclopentane

Stock number: A19306

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

Information Department: Health, Safety and Environmental Department

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#)

Methylcyclopentane (CAS# 96-37-7): 100%

Identification number(s):

EINECS Number: 202-503-2

3 Hazards identification
• Hazard description:

Xi Irritant
F Highly flammable
• Information pertaining to particular dangers for man and environment

R 11 Highly flammable.
R 36/37/38 Irritating to eyes, respiratory system and skin.
• Classification system

• HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)
Health (acute effects) = 1
Flammability = 3
Reactivity = 1

• 4 First aid measures

• After inhalation

Supply fresh air. If required, provide artificial respiration.
Keep patient warm.
Seek immediate medical advice.
• After skin contact

Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
• After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.
• After swallowing Seek immediate medical advice.

• 5 Fire fighting measures

• Suitable extinguishing agents

In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
• For safety reasons unsuitable extinguishing agents Water

• Special hazards caused by the material, its products of combustion or

resulting gases:
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
• 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/collection:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
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:

Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.

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

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Information about storage in one common storage facility:

Store away from oxidizing agents.
Further information about storage conditions:

Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.

8 Exposure controls and 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.

Components with limit values that require monitoring at the workplace:

Not required.

Additional information: No data

Personal protective equipment

General protective and hygienic measures

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 and skin.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves
Check protective gloves prior to each use for their proper condition.

Material of gloves

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties:

General Information
- **Form:** Liquid
- **Color:** Colorless
- **Odor:** Not determined

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<th>Value/Range</th>
<th>Unit</th>
<th>Method</th>
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- **Change in condition**
- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** 71-73 °C
- **Sublimation temperature / start:** Not determined
- **Flash point:** -24 °C
- **Ignition temperature:** Not determined
- **Decomposition temperature:** Not determined

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

- **Explosion limits:**
  - **Lower:** 1.2 Vol %
  - **Upper:** 8.35 Vol %

- **Vapor pressure:** Not determined
- **Density:** at 20 °C 0.74 g/cm³

- **Solubility in / Miscibility with**
  - **Water:** Not miscible or difficult to mix
10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:
  Decomposition will not occur if used and stored according to specifications.
- Materials to be avoided: Oxidizing agents
- Dangerous reactions: No dangerous reactions known
- Dangerous products of decomposition: Carbon monoxide and carbon dioxide

11 Toxicological information

- Acute toxicity:

  LD/LC50 values that are relevant for classification:
  
  Inhalative: LCLo: 95 gm/m3 (mus)

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

- Subacute to chronic toxicity:

  Subacute to chronic toxicity:

  The Registry of Toxic Effects of Chemical Substances (RTECS) reports the following effects in laboratory animals:
  Behavioral - general anesthetic.
  Behavioral - convulsions or effect on seizure threshold.
  Lungs, Thorax, or Respiration - respiratory depression.
  Nutritional and Gross Metabolic - weight loss or decreased weight gain.
  Related to Chronic Data - death.

- Additional toxicological information:

  To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
  No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:

- General notes:
Do not allow material to be released to the environment without proper governmental permits.

- **13 Disposal considerations**
  - **Product:**
  - **Recommendation:**
    Consult state, local or national regulations to ensure proper disposal.
  - **Uncleaned packagings:**
  - **Recommendation:**
    Disposal must be made according to official regulations.

- **14 Transport information**
  - **DOT regulations:**
  - **Hazard class:** 3
  - **Identification number:** UN2298
  - **Packing group:** II
  - **Proper shipping name (technical name):** METHYLICYCLOPENTANE
  - **Label**
    3
  - **Land transport ADR/RID (cross-border)**
    **ADR/RID class:** 3 Flammable liquids
    **Danger code (Kemler):** 33
    **UN-Number:** 2298
    **Packing group:** II
    **Description of goods:** 2298 METHYLICYCLOPENTANE
  - **Maritime transport IMDG:**
• IMDG Class: 3
• UN Number: 2298
• Label 3
• Packaging group: II
• Proper shipping name: METHYLICYCLOPENTANE

• Air transport ICAO-TI and IATA-DGR:
• ICAO/IATA Class: 3
• UN/ID Number: 2298
• Label 3
• Packaging group: II
• Proper shipping name: METHYLICYCLOPENTANE

• 15 Regulations

• Product related hazard informations:

• Hazard symbols:

Xi Irritant F Highly flammable

• Risk phrases:

11 Highly flammable.
36/37/38 Irritating to eyes, respiratory system and skin.

• Safety phrases:

7 Keep container tightly closed.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
33 Take precautionary measures against static discharges.
37 Wear suitable gloves.
43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
60 This material and its container must be disposed of as hazardous waste.

• National regulations
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

- **Information about limitation of use:**
  For use only by technically qualified individuals.

- **16 Other information:**
  Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

- **Department issuing MSDS:** Health, Safety and Environmental Department.

- **Contact:** Darrell R. Sanders