

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 01/08/2008

Reviewed on 01/23/2007

1 Identification of substance:**Product details:****Product name:** Cyclopentyl bromide**Stock number:**

A15455

L02893

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#)**

Bromocyclopentane (CAS# 137-43-9); 100%

Identification number(s):**EINECS Number:** 205-294-6**3 Hazards identification****Hazard description:** Not applicable**Information pertaining to particular dangers for man and environment**

R 10 Flammable.

Classification system**HMIS ratings (scale 0-4)****(Hazardous Materials Identification System)**

HEALTH	1
FIRE	2
REACTIVITY	1

Health (acute effects) = 1

Flammability = 2

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.

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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

Hydrogen bromide (HBr)

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.

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:**

No special requirements.

Information about storage in one common storage facility:

Do not store together with strongly basic or oxidizing materials.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

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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

Eye protection: Safety glasses

Body protection: Protective work clothing.

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

Form:	Fluid
Color:	Colorless
Odor:	Aromatic

Change in condition

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	138°C (280°F)
Sublimation temperature / start:	Not determined

Flash point: 35°C (95°F)

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:	Not determined
Upper:	Not determined

Vapor pressure: Not determined

Density at 20°C (68°F): 1.39 g/cm³

10 Stability and reactivity**Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

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Materials to be avoided:

Oxidizing agents

Bases

Dangerous reactions No dangerous reactions known**Dangerous products of decomposition:**

Carbon monoxide and carbon dioxide

Hydrogen bromide

11 Toxicological information**Acute toxicity:****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:**

Other than potential irritation (see above), no information on illness or injury to humans from acute or chronic exposure to this product is available.

Additional toxicological information:

Danger through skin absorption.

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 undiluted product or large quantities of it to reach ground water, water course or sewage system.

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:**

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Identification number:

UN1993

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Product name: Cyclopentyl bromide

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Packing group:	III
Proper shipping name (technical name):	FLAMMABLE LIQUID, N.O.S. (Cyclopentyl bromide)
Label	3

Land transport ADR/RID (cross-border)


ADR/RID class:	3 (F1) Flammable liquids
Danger code (Kemler):	30
UN-Number:	1993
Packaging group:	III
Description of goods:	1993 FLAMMABLE LIQUID, N.O.S. (Cyclopentyl bromide)

Maritime transport IMDG:


IMDG Class:	3
UN Number:	1993
Label	3
Packaging group:	III
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (Cyclopentyl bromide)

Air transport ICAO-TI and IATA-DGR:


ICAO/IATA Class:	3
UN/ID Number:	1993
Label	3
Packaging group:	III
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (Cyclopentyl bromide)

15 Regulations

Product related hazard informations:
Risk phrases:

10 Flammable.

Safety phrases:

- 9 Keep container in a well-ventilated place.
- 16 Keep away from sources of ignition - No smoking.
- 36/37 Wear suitable protective clothing and gloves.
- 43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

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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.

All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).

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: Paul V. Connolly