

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 11/10/2008

Reviewed on 11/10/2008

1 Identification of substance:

Product details:

Product name: Benzal chloride

Stock number:

A17969

L03031

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#)

Benzal chloride (CAS# 98-87-3): 100%

Identification number(s):

EINECS Number: 202-709-2

Index number: 602-058-00-8

3 Hazards identification

Hazard description:



T Toxic

Information pertaining to particular dangers for man and environment

R 22 Harmful if swallowed.

R 23 Toxic by inhalation.

R 37/38 Irritating to respiratory system and skin.

R 40 Limited evidence of a carcinogenic effect.

R 41 Risk of serious damage to eyes.

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH	3	Health (acute effects) = 3
FIRE	2	Flammability = 2
REACTIVITY	1	Reactivity = 1

4 First aid measures

General information

Immediately remove any clothing soiled by the product.

(Contd. on page 2)

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 11/10/2008

Reviewed on 11/10/2008

Product name: Benzal chloride

(Contd. of page 1)

Remove breathing apparatus only after contaminated clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

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

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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 chloride (HCl)

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

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.

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.

(Contd. on page 3)

Material Safety Data Sheet
acc. to OSHA and ANSI

Printing date 11/10/2008

Reviewed on 11/10/2008

Product name: Benzal chloride

(Contd. of page 2)

Open and handle container with care.

Information about protection against explosions and fires:

Keep ignition sources away.

Storage

Requirements to be met by storerooms and receptacles:

No special requirements.

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.

Store protective clothing separately.

Avoid contact with the skin.

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

Tightly sealed goggles

Body protection: Protective work clothing.

9 Physical and chemical properties:

General Information

Form:	Liquid
Color:	Colorless
Odor:	Not determined

Change in condition

Melting point/Melting range:	Not determined
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(Contd. on page 4)

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 11/10/2008

Reviewed on 11/10/2008

Product name: Benzal chloride

(Contd. of page 3)

Boiling point/Boiling range:	82-84°C (180-183°F) (11 mmHg)
Sublimation temperature / start:	Not determined
Flash point:	92°C (198°F)
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density at 20°C (68°F):	1.254 g/cm ³
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

Hydrogen chloride (HCl)

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral	LD50	2462 mg/kg (mouse) 3249 mg/kg (rat)
Inhalative	LC50	210 mg/m ³ (mouse)
	LC50/2H	61 ppm/2H (rat)

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye:

Strong irritant with the danger of severe eye injury.

Irritating effect.

Sensitization: No sensitizing effects known.

Other information (about experimental toxicology):

Tumorigenic effects have been observed on tests with laboratory animals.

Mutagenic effects have been observed on tests with bacteria.

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.

(Contd. on page 5)

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 11/10/2008

Reviewed on 11/10/2008

Product name: Benzal chloride

(Contd. of page 4)

Lung, Thorax, or Respiration - cough.
 Lungs, Thorax, or Respiration - tumors.
 Skin and Appendages - tumors.
 Tumorigenic - carcinogenic by RTECS criteria.
 Tumorigenic - neoplastic by RTECS criteria.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

IARC-2A: Probably carcinogenic to humans: limited human evidence; sufficient evidence in experimental animals

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:	6.1
Identification number:	UN1886
Packing group:	II
Proper shipping name (technical name):	BENZYLIDENE CHLORIDE
Label	6.1

Land transport ADR/RID (cross-border)

ADR/RID class:	6.1 (T1) Toxic substances
Danger code (Kemler):	60
UN-Number:	1886
Packaging group:	II

(Contd. on page 6)

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 11/10/2008

Reviewed on 11/10/2008

Product name: Benzal chloride

(Contd. of page 5)

Description of goods: 1886 BENZYLIDENE CHLORIDE

Maritime transport IMDG:


IMDG Class:	6.1
UN Number:	1886
Label	6.1
Packaging group:	II
Proper shipping name:	BENZYLIDENE CHLORIDE

Air transport ICAO-TI and IATA-DGR:


ICAO/IATA Class:	6.1
UN/ID Number:	1886
Label	6.1
Packaging group:	II
Proper shipping name:	BENZYLIDENE CHLORIDE

15 Regulations

Product related hazard informations:
Hazard symbols:

T Toxic

Risk phrases:

22 Harmful if swallowed.
 23 Toxic by inhalation.
 37/38 Irritating to respiratory system and skin.
 40 Limited evidence of a carcinogenic effect.
 41 Risk of serious damage to eyes.

Safety phrases:

36/37 Wear suitable protective clothing and gloves.
 38 In case of insufficient ventilation, wear suitable respiratory equipment.
 45 In case of accident or if you feel unwell, seek medical advice immediately.

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.

(Contd. on page 7)

Material Safety Data Sheet
acc. to OSHA and ANSI

Printing date 11/10/2008

Reviewed on 11/10/2008

Product name: Benzal chloride

(Contd. of page 6)

This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

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

USA