E-mail: gcat@matthey.com

www.alfa-chemcat.com

Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 09.08.2010 Revision: 09.08.2010

1 Identification of substance

Product details

Trade name 2-Chloro-4-methoxybenzyl bromide

Stock number:

Alfa Aesar GmbH & Co.KG Manufacturer/Supplier:

Benzstrasse 3 D-76185 Karlsruhe / Germany

Product safety department. Informing department:

Emergency information: Giftnotruf Universität Mainz / Poison Information Center Mainz www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240

2 Hazards identification

Hazard designation:

C Corrosive

Information pertaining to particular dangers for man and environment GHS label elements

R 34 Causes burns.

Danger

H314 - Causes severe skin burns and eye damage. Prevention: Response:

H314 - Causes severe skin burns and eye damage.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.

Storage:

Disposal: P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#) 2-Chloro-4-methoxybenzyl bromide (CAS# 54788-17-9): 100%

4 First aid measures

General information

Instantly remove any clothing soiled by the product.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
Seek immediate medical advice. After inhalation

After skin contact Instantly wash with water and soap and rinse thoroughly. Seek immediate medical advice.

Rinse opened eye for several minutes under running water. Then consult doctor. After eye contact

After swallowing Seek immediaté medical advice

5 Fire fighting measures

Suitable extinguishing agents Special hazards caused by the material, its products of combustion or flue gases:

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Can be released in case of fire:

Carbon monoxide and carbon dioxide
Hydrogen bromide (HBr)
Hydrogen chloride (HCl)
Wear self-contained breathing apparatus.
Woos full protective suit Protective equipment:

Wear full protective suit.

6 Accidental release measures

Wear protective equipment. Keep unprotected persons away. Person-related safety precautions:

Ensure adequate ventilation

Do not allow material to be released to the environment without proper governmental permits. Measures for environmental protection:

Measures for cleaning/collecting:

Use neutralizing agent.
Dispose of contaminated material as waste according to item 13.

Additional information:

Ensure adequate ventilation.

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

7 Handling and storage

Handling Information for safe handling:

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

Information about protection against explosions and fires:

Storage

Keep ignition sources away - Do not smoke.

Requirements to be met by storerooms and

containers: Information about storage in one common

storage facility: Further information about storage

conditions:

No special requirements.

Store away from oxidizing agents.

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Store in a locked cabinet or with access restricted to technical experts or their assistants.

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 critical values that require

monitoring at the workplace: Additional information:

Personal protective equipment General protective and hygienic measures

Not required. No data

The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food.

(Contd. on page 2)

(Contd. of page 1)

Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 09.08.2010 Revision: 09.08.2010

Trade name 2-Chloro-4-methoxybenzyl bromide

Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.

Use breathing protection with high concentrations.

Breathing equipment: Protection of hands: Material of gloves Check protective gloves prior to each use for their proper condition.

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.

Impervious gloves

Penetration time of glove material

Eye protection:

Not determined

Safety glasses Tightly sealed safety glasses.

Full face protection Face protection Protective work clothing.

Body protection:

Form: Colour:

9 Physical and chemical properties:

General Information

Powder White

Not determined Not determined

Not applicable

Not determined

Not determined

Not determined

Not determined

Not determined

Not determined

Insoluble

Product is not explosive.

Cream coloured Smell: Not determined

Change in condition
Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Flash point:

Ignition temperature: **Decomposition temperature:**

Danger of explosion: Critical values for explosion:

Lower: Upper: Steam pressure: Density

Solubility in / Miscibility with Water:

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

Materials to be avoided: Dangerous reactions:

Dangerous products of decomposition:

No decomposition if used and stored according to specifications.

Oxidizing agents
No dangerous reactions known Carbon monoxide and carbon dioxide Hydrogen bromide Hydrogen chloride (HCI)

11 Toxicological information

Acute toxicity:

Primary irritant effect: on the skin:

Corrosive effect on skin and mucous membranes. Irritant for skin and mucous membranes. Strong corrosive effect.

on the eye:

Sensitization:

Additional toxicological information:

Irritant effect.
Lachrymatory effect.
No sensitizing effect known.
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA

or ACGIH.

12 Ecological information:

Additional ecological information: General notes:

Generally not hazardous for water.

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 for proper disposal. Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations.

Uncleaned packagings: Recommendation:

Disposal must be made according to official regulations.

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)



ADR/RID-GGVS/E Class: Kemler Number:

8 (C10) Corrosive substances.

UN-Number: Packaging group: Label

1759 III

(Contd. on page 3)

(Contd. of page 2)

Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 09.08.2010 Revision: 09.08.2010

Trade name 2-Chloro-4-methoxybenzyl bromide

Designation of goods: 1759 CORROSIVE SOLID, N.O.S. (2-Chloro-4-methoxybenzyl bromide)

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 8 1759 UN Number: 8 III Label Packaging group: Marine pollutant: Correct technical name:

No CORROSIVE SOLID, N.O.S. (2-Chloro-4-methoxybenzyl bromide)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: UN/ID Number: 8 1759 Label Packaging group: Correct technical name:

CORROSIVE SOLID, N.O.S. (2-Chloro-4-methoxybenzyl bromide)

UN "Model Regulation": UN1759, CORROSIVE SOLID, N.O.S., 8, III

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:

C Corrosive

Risk phrases: 34 Causes burns.

Safety phrases:

When using do not eat or drink.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where

possible).

National regulations

Information about limitation of use:

For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed.

Water hazard class: Generally not hazardous for water.

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 data specification sheet: Health, Safety and Environmental Department.

Abbreviations and acronyms:

Health, Safety and Environmental Department.

Zachariah Holt

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

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDE: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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