

1 Identification of substance**Product details**

Trade name

4-(Difluoromethoxy)benzyl bromide

Stock number:

B24052

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com

Informing department:

Product safety 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**

Prevention:

H314 - Causes severe skin burns and eye damage.

Response:

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309 IF exposed or if you feel unwell:

P310 Immediately call a POISON CENTER or doctor/physician.

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

4-(Difluoromethoxy)benzyl bromide (CAS# 3447-53-8)

4 First aid measures

General information

Instantly remove any clothing soiled by the product.

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

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

After swallowing

Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents

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

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

Can be released in case of fire:

Carbon monoxide and carbon dioxide

Hydrogen fluoride (HF)

Hydrogen bromide (HBr)

Wear self-contained breathing apparatus.

Wear full protective suit.

Protective equipment:

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Ensure adequate ventilation

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).

Use neutralizing agent.

Dispose of contaminated material as waste according to item 13.

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.

Additional information:

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:

Keep ignition sources away - Do not smoke.

Storage

Requirements to be met by storerooms and
containers:

No special requirements.

Information about storage in one common
storage facility:

Store away from oxidizing agents.

Store away from strong bases.

Further information about storage
conditions:

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 protectionAdditional 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:

Not required.

Additional information:

No data

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

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

Revision: 05.08.2010

Printing date 05.08.2010

Trade name **4-(Difluoromethoxy)benzyl bromide**

(Contd. of page 1)

Breathing equipment:
Protection of hands:
Material of gloves

Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Use breathing protection with high concentrations.
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.

Eye protection:

Safety glasses
Tightly sealed safety glasses.
Full face protection
Face protection

Body protection:

Protective work clothing.

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

Form:	Liquid
Colour:	Colourless
Smell:	Pungent
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	64-66°C (0,3mm Hg)
Sublimation temperature / start:	Not determined

Flash point: Not determined**Ignition temperature:** Not determined**Decomposition temperature:** Not determined**Danger of explosion:** Product is not explosive.**Critical values for explosion:**

Lower:	Not determined
Upper:	Not determined

Steam pressure: Not determined**Density** Not determined**Solubility in / Miscibility with Water:** Not miscible or difficult to mix**10 Stability and reactivity****Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

Materials to be avoided:

Oxidizing agents

Bases

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide

Hydrogen fluoride

Hydrogen bromide

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.

Irritant effect.

on the eye:

No sensitizing effect known.

Sensitization:**Additional toxicological information:**

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:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies 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 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:**

8 (C3) Corrosive substances.

Kemler Number:

80

UN-Number:

3265

Packaging group:

II

Label

8

Designation of goods:

3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (4-(Difluoromethoxy)benzyl bromide)

Limited quantities (LQ)

LQ22

Transport category

2

(Contd. on page 3)

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(Contd. of page 2)

Tunnel restriction code E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 8
 UN Number: 3265
 Label: 8
 Packaging group: II
 EMS Number: F-A, S-B
 Marine pollutant: No
 Segregation groups: Acids
 Correct technical name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (4-(Difluoromethoxy)benzyl bromide)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 8
 UN/ID Number: 3265
 Label: 8
 Packaging group: II
 Correct technical name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (4-(Difluoromethoxy)benzyl bromide)

UN "Model Regulation":

UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 8, II

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



C Corrosive

Risk phrases: 34 Causes burns.

Safety phrases: 26 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.
 45 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:

Water hazard class 1 (Self-assessment): slightly 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.

Contact: Zachariah Holt

Abbreviations and acronyms: 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)

IMDG: 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)