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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

3-Fluoro-2-(trifluoromethyl)benzyl bromide Trade name

Stock number:

Alfa Aesar GmbH & Co.KG Manufacturer/Supplier:

Benzstrasse 3 D-76185 Karlsruhe / Germany

Product safety department. Informing department:

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

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.

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

3 Composition/information on ingredients

Chemical characterization:

3-Fluoro-2-(trifluoromethyl)benzyl bromide (CAS# 261951-84-2): 100% Designation: (CAS#)

4 First aid measures

Storage:

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

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

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

After eye contact After swallowing

5 Fire fighting measures

Suitable extinguishing agents 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 bromide (HBr)
Hydrogen fluoride (HF)
Wear self-contained breathing apparatus. Protective equipment: Wear full protective suit.

6 Accidental release measures

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

Measures for environmental protection:

Measures for cleaning/collecting:

Do not allow material to be released to the environment without proper governmental permits. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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

Use neutralizing agent.

Dispose of contaminated material as waste according to item 13.

Additional information:

Dispose of contaminated material as waste according to item 15 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:

Keep ignition sources away - Do not smoke.

Storage Requirements to be met by storerooms and

containers:

Information about storage in one common storage facility:

No special requirements.

Further information about storage

conditions:

Store away from oxidizing agents. Store away from strong bases.

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

Not required. No data

monitoring at the workplace: Additional information:

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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. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.

Use breathing protection in case of insufficient ventilation.

Use breathing protection with high concentrations.

Breathing equipment:

Use breathing protection with high concentrations.
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. Protection of hands: Material of gloves

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.

9 Physical and chemical properties:

Body protection:

General Information Form: Crystalline Colour: Not determined Smell:

Change in condition

Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: 53°C (1 mmHg) Not determined Flash point: Not applicable

Ignition temperature: Not determined Decomposition temperature: Not determined

Danger of explosion: Product is not explosive.

Critical values for explosion:

Not determined Lower: Upper: Not determined Steam pressure: Not determined Density Not determined

Solubility in / Miscibility with Water:

Insoluble

10 Stability and reactivity

Thermal decomposition / conditions to be

avoided: Materials to be avoided:

No decomposition if used and stored according to specifications.

Oxidizing agents Bases

Dangerous reactions:

Dangerous products of decomposition:

No dangerous reactions known Carbon monoxide and carbon dioxide Hydrogen bromide

Hýdroğen fluoride

11 Toxicological information

Acute toxicity:

Primary irritant effect: on the skin:

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

Sensitization:

Additional toxicological information:

Strong corrosive elect.
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

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

Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.

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 (C4) Corrosive substances.

Kemler Number:

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UN-Number: Packaging group: 3261 III

Label

8 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (3-Fluoro-2-(trifluoromethyl)benzyl bromide) LQ24

Designation of goods: Limited quantities (LQ) Transport category 3 F Tunnel restriction code

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 8 3261 UN Number: Label
Packaging group:
Marine pollutant:
Segregation groups
Correct technical name: 8 III

Acids CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (3-Fluoro-2-(trifluoromethyl)benzyl bromide)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: UN/ID Number: 8 3261 8 III Label

Packaging group: Correct technical name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (3-Fluoro-2-(trifluoromethyl)benzyl bromide)

UN "Model Regulation": UN3261, CORROSIVE SOLID, ACIDIC, ORGANIC, 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:

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 contact with eyes, rinse immediately with plenty of water and seek medical advice.
 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

Water hazard class:

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)

IMDG: International Maritime Code for Dangerous Goods

IATA: 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: Internat