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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

Trade name 4-(4-Fluorophenyl)butyric acid

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:

Xi Irritant

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

R 36/37/38 Irritating to eyes, respiratory system and skin. Warning

H315 - Causes skin irritation.

Prevention:

Response:

H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).

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

P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations. Storage: Disposal:

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#) Identification number(s): EINECS Number:

4-(4-Fluorophenyl)butyric acid (CAS# 589-06-0): 100%

209-631-8

4 First aid measures

After skin contact

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

persist. Seek immediate medical advice.

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

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

Seek immediate medical advice

5 Fire fighting measures

Protective equipment:

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 fluoride (HF) Wear self-contained breathing apparatus.

Wear full protective suit.

6 Accidental release measures

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

Measures for environmental protection: Measures for cleaning/collecting: Additional information:

Do not allow material to be released to the environment without proper governmental permits. 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.

Requirements to be met by storerooms and

containers:

Information about storage in one common storage facility:

conditions:

Further information about storage

No special requirements.

Store away from oxidizing agents.

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 critical values that require

monitoring at the workplace: Additional information:

Not required. 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. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.

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Breathing equipment: Protection of hands: Material of gloves

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.

Impervious gloves Penetration time of glove material Not determined

Eye protection:

Safety glasses Face protection

Body protection: Protective work clothing.

9 Physical and chemical properties:

General Information Form: Crystalline powder White Not determined Colour: Smell:

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: 44-46°C Not determined 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 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:

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 fluoride

Irritant for skin and mucous membranes.

11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin:

on the eye: Sensitization:

Additional toxicological information:

No sensitizing effect known.

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:

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:
None

Maritime transport IMDG/GGVSea: IMDG/GGVSea Class:

None No

Marine pollutant: Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class:

None

Transport/Additional information: Not dangerous according to the above specifications.

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:

Xi Irritant

Risk phrases: 36/37/38 Irritating to eyes, respiratory system and skin.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 37 Wear suitable gloves. Safety phrases:

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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. not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility or the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

Zachariah Holt

Abbreviations and acronyms:

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Richard Abbreviations and acronyms:

Beginner international concernant le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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

IMDG: 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

EINECS: European Inventory of Existing Commercial Chemical Substances

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