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Printing date 12.08.2010 Revision: 12.08.2010

1 Identification of substance

Product details

Trade name 5-(2-Fluorophenyl)-2-furoyl chloride

Stock number:

Alfa Aesar GmbH & Co.KG Manufacturer/Supplier:

Benzstrasse 3 D-76185 Karlsruhe / Germany

Informing department: Product safety 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.

Storage:

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

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#) 5-(2-Fluorophenyl)-2-furoyl chloride (CAS#?): 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

CO2, sand, extinguishing powder. Do not use water.

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

Protective equipment:

Suitable extinguishing agents For safety reasons unsuitable extinguishing

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 chloride (HCl) Wear self-contained breathing apparatus.

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:

Do not allow material to be released to the environment without proper governmental permits. Use neutralizing agent.
Dispose of contaminated material as waste according to item 13. Measures for cleaning/collecting:

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

Additional information:

Handling Information for safe handling:

Handle under dry protective gas. 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.

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

Further information about storage

conditions:

Store under dry inert gas.

This product is moisture sensitive.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from humidity and keep away from water.
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.

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

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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.

Neep away from foodsturis, beverages and rood.
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.

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.

Breathing equipment: Protection of hands: Material of gloves

Impervious gloves Penetration time of glove material Not determined

Eye protection:

Safety glasses
Tightly sealed safety glasses.

Full face protection
Face protection
Protective work clothing.

Not determined

Body protection:

Smell:

9 Physical and chemical properties:

General Information Form: Powder Chunks

Change in condition Melting point/Melting range: Boiling point/Boiling range: Not determined Not determined Sublimation temperature / start: Not determined Flash point: Not applicable

Not determined Ignition temperature: Decomposition temperature: Not determined

Danger of explosion: Product is not explosive.

Critical values for explosion:

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

Solubility in / Miscibility with Water:

10 Stability and reactivity

Thermal decomposition / conditions to be

avoided: Materials to be avoided:

No decomposition if used and stored according to specifications. Water/moisture

Oxidizing agents Bases

Dangerous reactions: Dangerous products of decomposition: No dangerous reactions known Carbon monoxide and carbon dioxide Hydrogen chloride (HCI)

Reacts

11 Toxicological information

on the eye:

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.

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.

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:

Disposal must be made according to official regulations. Recommendation:

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14 Transport information

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



ADR/RID-GGVS/E Class: Kemler Number: 8 (C4) Corrosive substances.

80 3261 UN-Number: ΙΙΙ

Packaging group: Label

8' 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (5-(2-Fluorophenyl)-2-furoyl chloride)

Designation of goods: Limited quantities (LQ) Transport category LQ24 3 E Tunnel restriction code

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: UN Number: 8 3261 Label Packaging group: Marine pollutant: 8 III No

Segregation groups
Correct technical name: Acids
CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (5-(2-Fluorophenyl)-2-furoyl chloride)

Air transport ICAO-TI and IATA-DGR:



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

Packaging group: Correct technical name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (5-(2-Fluorophenyl)-2-furoyl chloride)

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: 20 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 1 (Self-assessment): slightly hazardous for water.

Water hazard class: 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:
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: Réglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International RiD: Réglement international Maritime Code for Dangerous Goods by Rail)

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

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