

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 11.08.2010

Revision: 11.08.2010

**1 Identification of substance****Product details****Trade name****2-Fluoro-4-methylbenzoyl chloride****Stock number:**

H31292

**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**

H314 - Causes severe skin burns and eye damage.

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#)**

2-Fluoro-4-methylbenzoyl chloride (CAS# 59189-98-9)

**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.

**After swallowing**

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

Seek immediate medical advice.

**5 Fire fighting measures****Suitable extinguishing agents**

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

**For safety reasons unsuitable extinguishing agents**

Water.

**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)  
Hydrogen fluoride (HF)**Protective equipment:**Wear self-contained breathing apparatus.  
Wear full protective suit.**6 Accidental release measures****Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

**Measures for environmental protection:**

Ensure adequate ventilation

**Measures for cleaning/collecting:**

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.

Ensure adequate ventilation.

**Additional information:**

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:**

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:**

No special requirements.

**Information about storage in one common storage facility:**

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.

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**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.  
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  
Not determined  
Safety glasses  
Tightly sealed safety glasses.  
Face protection  
Full face protection  
Protective work clothing.

**Penetration time of glove material**  
**Eye protection:**

**Body protection:**

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

**Form:** Solid.  
**Colour:** Whitish  
**Smell:** Pungent

**Change in condition**  
**Melting point/Melting range:** 43-47°C  
**Boiling point/Boiling range:** Not determined  
**Sublimation temperature / start:** 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:**  
**Lower:** Not determined  
**Upper:** Not determined

**Steam pressure:** Not determined

**Density** Not determined

**Solubility in / Miscibility with Water:** Reacts

**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  
No dangerous reactions known  
Carbon monoxide and carbon dioxide  
Hydrogen chloride (HCl)  
Hydrogen fluoride

**Dangerous reactions:**  
**Dangerous products of decomposition:**

**11 Toxicological information**

**Acute toxicity:**  
**Primary irritant effect:**  
**on the skin:**  
**on the eye:**  
**Sensitization:**

Corrosive effect on skin and mucous membranes.  
Strong corrosive effect.  
No sensitizing effect known.

**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**

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.

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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: 80  
 UN-Number: 3261  
 Packaging group: II  
 Label: 8  
 Designation of goods: 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (2-Fluoro-4-methylbenzoyl chloride)  
 Limited quantities (LQ): LQ23  
 Transport category: 2  
 Tunnel restriction code: E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 8  
 UN Number: 3261  
 Label: 8  
 Packaging group: II  
 EMS Number: F-A,S-B  
 Marine pollutant: No  
 Segregation groups: Acids  
 Correct technical name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (2-Fluoro-4-methylbenzoyl chloride)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 8  
 UN/ID Number: 3261  
 Label: 8  
 Packaging group: II  
 Correct technical name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (2-Fluoro-4-methylbenzoyl chloride)

UN "Model Regulation":

UN3261, CORROSIVE SOLID, 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)