

Creation Date 30-Jun-2009

Revision Date 06-Feb-2012

Revision Number 3

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product Identifier**

**Product Description:** 4-Fluoro-2-(trifluoromethyl)benzoyl chloride  
**Cat No.** 398800000; 398800010; 398800050

**Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

**Details of the supplier of the safety data sheet**

**Company**

Acros Organics BVBA  
 Janssen Pharmaceuticaaan 3a  
 2440 Geel, Belgium

**E-mail address** begel.sdsdesk@thermofisher.com

**Emergency Telephone Number**

Chemtrec US: (800) 424-9300  
 Chemtrec EU: 001 (202) 483-7616

## SECTION 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

Skin Corrosion/Irritation	Category 1 B
Serious Eye Damage/Eye Irritation	Category 1

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

*For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16*

**Symbol(s)** C - Corrosive  
**R-phrases(s)** R29 - Contact with water liberates toxic gas  
 R34 - Causes burns

**Label Elements**



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**Signal Word**

**Danger**

**4-Fluoro-2-(trifluoromethyl)benzoyl chloride**
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**Hazard Statements**

H314 - Causes severe skin burns and eye damage  
 EUH029 - Contact with water liberates toxic gas

**Precautionary Statements - EU (§28, 1272/2008)**

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
 P280 - Wear 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  
 P310 - Immediately call a POISON CENTER or doctor/ physician  
 P402 + P404 - Store in a dry place. Store in a closed container

**Other Hazards**

No information available.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
4-Fluoro-2-(trifluoromethyl)benzoyl chloride 189807-21-4		>95	189807-21-4	R29 C; R34	Skin Corr. 1B (H314) (EUH029)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

**SECTION 4. FIRST AID MEASURES**
**Description of first aid measures**
**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Ingestion**

Do not induce vomiting. Call a physician or Poison Control Center immediately.

**Inhalation**

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

**Notes to Physician**

Treat symptomatically

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**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Combustible material. Containers may explode when heated. Water reactive. Contact with water liberates toxic gas.

**Advice for fire-fighters**

Thermal decomposition can lead to release of irritating gases and vapors. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental precautions**

Should not be released into the environment.

**Methods and material for containment and cleaning up**

Remove all sources of ignition. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.. Do not expose spill to water.

**SECTION 7. HANDLING AND STORAGE****Precautions for Safe Handling**

Use only under a chemical fume hood. Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Do not ingest. Do not allow contact with water.

**Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep away from water. Corrosives area.

**Specific End Uses**

**4-Fluoro-2-(trifluoromethyl)benzoyl chloride**
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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
Control parameters

**Exposure limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Biological limit values** This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

Exposure controls

**Engineering Measures** Use only under a chemical fume hood Ensure that eyewash stations and safety showers are close to the workstation location

**Personal protective equipment**

**Eye Protection** Safety glasses with side-shields

**Hand Protection** Protective gloves

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Liquid
<b>pH</b>	No information available.
<b>Boiling Point/Range</b>	157°C / 314.6°F @ 760 mmHg
<b>Melting Point/Range</b>	No information available.
<b>Flash Point</b>	85°C / 185°F
<b>Autoignition Temperature</b>	No information available.
<b>Specific Gravity</b>	1.495
<b>Molecular Formula</b>	C <sub>8</sub> H <sub>3</sub> Cl F <sub>4</sub> O
<b>Molecular Weight</b>	226.56

**SECTION 10. STABILITY AND REACTIVITY**
Reactivity

**Reactive Hazard** Yes

Chemical Stability

Water reactive. Moisture sensitive.

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**Possibility of Hazardous Reactions**

**Hazardous Polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions .** Contact with water liberates toxic gas.

**Conditions to Avoid**

Incompatible products, Heat, flames and sparks, Exposure to moist air or water, Exposure to moisture.

**Incompatible Materials**

Strong oxidizing agents.

**Hazardous Decomposition Products**Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen chloride gas. Hydrogen fluoride.**SECTION 11. TOXICOLOGICAL INFORMATION****Information on Toxicological Effects****Acute Toxicity**

**Product Information** No acute toxicity information is available for this product

**Component Information****Chronic Toxicity**

**Carcinogenicity** There are no known carcinogenic chemicals in this product

**Sensitization** No information available.  
**Mutagenic Effects** No information available  
**Reproductive Effects** No information available.  
**Developmental Effects** No information available.  
**Target Organs** Skin Respiratory system Eyes Gastrointestinal tract (GI)  
**Other Adverse Effects** The toxicological properties have not been fully investigated.  
**Endocrine Disruptor Information** None known

**SECTION 12. ECOLOGICAL INFORMATION****Toxicity**

**Ecotoxicity effects** Do not empty into drains

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**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**Results of PBT and vPvB assessment****Other adverse effects**

No information available

**SECTION 13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Waste from Residues / Unused Products**

Dispose of in accordance with local regulations

**Contaminated Packaging**

Empty containers should be taken to local recyclers for disposal

**SECTION 14. TRANSPORT INFORMATION****IMDG/IMO**

<b>UN-No</b>	UN3265
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	Corrosive liquid, acidic, organic, n.o.s

**ADR**

<b>UN-No</b>	UN3265
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	Corrosive liquid, acidic, organic, n.o.s

**IATA**

<b>UN-No</b>	UN3265
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	Corrosive liquid, acidic, organic, n.o.s

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**SECTION 14. TRANSPORT INFORMATION****SECTION 15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories****Legend****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**CHINA** - China Inventory of Existing Chemical Substances**AICS** - Inventory of Chemical Substances**KECL** - Existing and Evaluated Chemical Substances**Chemical Safety Assessment****SECTION 16. OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

R29 - Contact with water liberates toxic gas

R34 - Causes burns

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Revision Summary Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet