



# SAFETY DATA SHEET

Creation Date 27-Jun-2011

Revision Date 05-Dec-2011

Revision Number 2

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

### Product Identifier

Product Description: 2-Chloro-4-fluoropyridine  
Cat No. 442150000; 442150010; 442150050

### 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

For information in the US, call: 001-800-ACROS-01  
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99  
Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300  
CHEMTREC Phone Number, Europe: 001-703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

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

|   |            |
|---|------------|
| Acute oral toxicity                                       | Category 3 |
| Acute dermal toxicity                                     | Category 3 |
| Acute Inhalation Toxicity - Dusts and Mists               | Category 3 |
| Skin Corrosion/Irritation                                 | Category 2 |
| Serious Eye Damage/Eye Irritation                         | Category 2 |
| Specific target organ systemic toxicity (single exposure) | Category 3 |
| Flammable liquids.  | Category 3 |

### 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) T - Toxic  
R-phrases R10 - Flammable  
Risk Combination Phrases R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed  
R36/37/38 - Irritating to eyes, respiratory system and skin

2-Chloro-4-fluoropyridine

Revision Date 05-Dec-2011

**SECTION 2. HAZARDS IDENTIFICATION**

Label Elements



Signal Word

Danger

**Hazard Statements**

- H301 - Toxic if swallowed
- H311 - Toxic in contact with skin
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H331 - Toxic if inhaled
- H335 - May cause respiratory irritation
- H226 - Flammable liquid and vapor

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

- P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
- P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
- P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
- P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

**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. |
|-----------|--------|----------|--------|---------------------------|---|-----------|
|           |        |          |        |                           |   |           |

2-Chloro-4-fluoropyridine

Revision Date 05-Dec-2011

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

|   |     |            |                                      |   |   |
|---|-----|------------|--------------------------------------|---|---|
| 2-Chloro-4-fluoropyridine<br>34941-91-8 | >95 | 34941-91-8 | T; R23/24/25<br>Xi; R36/37/38<br>R10 | Flam. Liq. 3<br>(H226)<br>Acute Tox. 3<br>(H301)<br>Acute Tox. 3<br>(H311)<br>Acute Tox. 3<br>(H331)<br>Eye Irrit. 2 (H319)<br>STOT SE 3<br>(H335)<br>Skin Irrit. 2<br>(H315) | - |
|---|-----|------------|--------------------------------------|---|---|

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. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.

#### Ingestion

Do not induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. 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

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing media

#### Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.

#### Extinguishing media which must not be used for safety reasons

No information available.

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

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

2-Chloro-4-fluoropyridine

Revision Date 05-Dec-2011

**Advice for fire-fighters**

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

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

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

**Environmental precautions**

Should not be released into the environment.

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

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

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

Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use explosion-proof equipment. Do not breathe vapors/dust. Do not ingest. Take precautionary measures against static discharges.

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

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

**Specific End Uses****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**

2-Chloro-4-fluoropyridine

Revision Date 05-Dec-2011

**Engineering Measures**

Use only under a chemical fume hood Ensure that eyewash stations and safety showers are close to the workstation location Use explosion-proof electrical/ventilating/lighting/equipment

**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****Physical State**

Liquid

**Appearance**

Colorless to yellowish

**odor**

No information available

**pH**

No information available.

**Boiling Point/Range**

140°C / 284°F @ 760 mmHg

**Melting Point/Range**

No information available.

**Flash Point**

54°C / 129.2°F

**Autoignition Temperature**

No information available.

**Density**

1.456 g/ml @ 25°C / 77°F

**Molecular Formula**

C5 H3 Cl F N

**Molecular Weight**

131.54

**SECTION 10. STABILITY AND REACTIVITY****Reactivity****Chemical Stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions****Hazardous Polymerization**

Hazardous polymerization does not occur.

**Hazardous Reactions .**

None under normal processing..

**Conditions to Avoid**

Incompatible products, Excess heat, Keep away from open flames, hot surfaces and sources of ignition.

**Incompatible Materials**

Strong oxidizing agents, Strong acids, Strong bases.

**Hazardous Decomposition Products**

**2-Chloro-4-fluoropyridine**

Revision Date 05-Dec-2011

Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Hydrogen chloride gas. Hydrogen fluoride.

**SECTION 11. TOXICOLOGICAL INFORMATION**Information on Toxicological EffectsAcute 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

|  |                           |
|--|---------------------------|
| <b>Sensitization</b>                   | No information available. |
| <b>Mutagenic Effects</b>               | No information available  |
| <b>Reproductive Effects</b>            | No information available. |
| <b>Developmental Effects</b>           | No information available. |
| <b>Target Organs</b>                   | None known.               |
| <b>Endocrine Disruptor Information</b> | None known                |

**SECTION 12. ECOLOGICAL INFORMATION**Toxicity

**Ecotoxicity effects** Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

**2-Chloro-4-fluoropyridine**

Revision Date 05-Dec-2011

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>                   | UN2929                                  |
| <b>Hazard Class</b>            | 6.1                                     |
| <b>Subsidiary Hazard Class</b> | 3                                       |
| <b>Packing Group</b>           | II                                      |
| <b>Proper Shipping Name</b>    | Toxic liquid, flammable, organic, n.o.s |

ADR

|                                |   |
|--------------------------------|---|
| <b>UN-No</b>                   | UN2929                                  |
| <b>Hazard Class</b>            | 6.1                                     |
| <b>Subsidiary Hazard Class</b> | 3                                       |
| <b>Packing Group</b>           | II                                      |
| <b>Proper Shipping Name</b>    | Toxic liquid, flammable, organic, n.o.s |

IATA

|                                |   |
|--------------------------------|---|
| <b>UN-No</b>                   | UN2929                                  |
| <b>Hazard Class</b>            | 6.1                                     |
| <b>Subsidiary Hazard Class</b> | 3                                       |
| <b>Packing Group</b>           | II                                      |
| <b>Proper Shipping Name</b>    | Toxic liquid, flammable, organic, n.o.s |

**SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

2-Chloro-4-fluoropyridine

Revision Date 05-Dec-2011

**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**

R10 - Flammable  
R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed  
R36/37/38 - Irritating to eyes, respiratory system and skin

Revision Date 05-Dec-2011  
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