

# **SAFETY DATA SHEET**

Version 6.1 Revision Date 08/31/2022 Print Date 04/28/2024

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### **1.1 Product identifiers**

Product name	<sup>:</sup> 2-Fluoropyridine
Product Number	: F15250
Brand	: Aldrich
CAS-No.	: 372-48-5

# 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

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

Company	:	Sigma-Aldrich Inc. 3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES
Telephone Fax	-	+1 314 771-5765 +1 800 325-5052

### 1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

# **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

# GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3), H226 Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

# 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Warning

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Hazard statement(s)	
H226	Flammable liquid and vapor.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P210	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes.
	Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant
	foam to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

# 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

# SECTION 3: Composition/information on ingredients

 Formula Molecular weight CAS-No. EC-No.	: C <sub>5</sub> H₄FN : 97.09 g/mol : 372-48-5 : 206-757-5		
Component		Classification	Concentration
2-Fluoropyridine			
		Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H226, H315, H319, H335	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

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3.1 Substances

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### **SECTION 4: First aid measures**

#### 4.1 Description of first-aid measures

#### **General advice**

Consult a physician. Show this material safety data sheet to the doctor in attendance. Move out of dangerous area.

# If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

- **4.2 Most important symptoms and effects, both acute and delayed** The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
- **4.3 Indication of any immediate medical attention and special treatment needed** No data available

#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media Dry powder Dry sand

#### **Unsuitable extinguishing media** Do NOT use water jet.

#### 5.2 Special hazards arising from the substance or mixture Carbon oxides Nitrogen oxides (NOx) Hydrogen fluoride

**5.3 Advice for firefighters** Wear self-contained breathing apparatus for firefighting if necessary.

# 5.4 Further information

Use water spray to cool unopened containers.

### **SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of

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vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

#### **6.2 Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**6.4 Reference to other sections** For disposal see section 13.

# SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

#### Advice on safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

#### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2.

# 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### Storage class

Storage class (TRGS 510): 3: Flammable liquids

# 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### **Ingredients with workplace control parameters** Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

# **Appropriate engineering controls** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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# **Personal protective equipment**

# Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

# **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 480 min Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M)

Splash contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 120 min Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### **Body Protection**

Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

# **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

# **Control of environmental exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# **SECTION 9: Physical and chemical properties**

# 9.1 Information on basic physical and chemical properties

- a) Appearance Form: clear, liquid Color: dark brown

b) Odor No data available

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c)	Odor Threshold	No data available		
d)	рН	No data available		
e)	Melting point/freezing point	No data available		
f)	Initial boiling point and boiling range	126 °C 259 °F at 1,004 hPa - lit.		
g)	Flash point	24 °C (75 °F) - closed cup		
h)	Evaporation rate	No data available		
i)	Flammability (solid, gas)	No data available		
j)	Upper/lower flammability or explosive limits	No data available		
k)	Vapor pressure	No data available		
I)	Vapor density	No data available		
m)	Density	1.128 g/mL at 25 °C (77 °F) - lit.		
	Relative density	No data available		
n)	Water solubility	No data available		
o)	Partition coefficient: n-octanol/water	No data available		
p)	Autoignition temperature	No data available		
q)	Decomposition temperature	No data available		
r)	Viscosity	No data available		
s)	Explosive properties	No data available		
t)	Oxidizing properties	No data available		
Other safety information				

No data available

# SECTION 10: Stability and reactivity

10.1 Reactivity

9.2

No data available

# 10.2 Chemical stability

Stable under recommended storage conditions.

# **10.3** Possibility of hazardous reactions

Vapors may form explosive mixture with air.

# **10.4** Conditions to avoid

Heat, flames and sparks.

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# **10.5** Incompatible materials

acids, Acid chlorides, Acid anhydrides, Strong oxidizing agents, Carbon dioxide (CO2)

#### **10.6 Hazardous decomposition products** In the event of fire: see section 5

### SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Oral: No data available Inhalation: No data available Dermal: No data available No data available

#### Skin corrosion/irritation

No data available

Serious eye damage/eye irritation No data available

#### **Respiratory or skin sensitization** No data available

Germ cell mutagenicity

No data available

#### Carcinogenicity

- IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

#### **Reproductive toxicity**

No data available No data available

#### **Specific target organ toxicity - single exposure** Inhalation - May cause respiratory irritation.

# Specific target organ toxicity - repeated exposure

No data available

#### **Aspiration hazard**

No data available

# **11.2 Additional Information**

#### RTECS: UT3900000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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# **SECTION 12: Ecological information**

- **12.1 Toxicity** No data available
- **12.2 Persistence and degradability** No data available
- **12.3 Bioaccumulative potential** No data available
- **12.4 Mobility in soil** No data available
- 12.5 Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
- **12.6 Endocrine disrupting properties** No data available
- **12.7 Other adverse effects** No data available

# SECTION 13: Disposal considerations

# **13.1** Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Contact a licensed professional waste disposal service to dispose of this material.

# **Contaminated packaging**

Dispose of as unused product.

# **SECTION 14: Transport information**

#### DOT (US)

UN number: 1993 Class: 3 Packing group: III Proper shipping name: Flammable liquids, n.o.s. (2-Fluoropyridine) Reportable Quantity (RQ): Poison Inhalation Hazard: No

# IMDG

UN number: 1993 Class: 3 Packing group: III EMS-No: F-E, S-E Proper shipping name: FLAMMABLE LIQUID, N.O.S. (2-Fluoropyridine)

# ΙΑΤΑ

UN number: 1993 Class: 3 Packing group: III Proper shipping name: Flammable liquid, n.o.s. (2-Fluoropyridine)

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# SECTION 15: Regulatory information

# SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

# SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

# SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

#### **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

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Pennsylvania Right To Know Components 2-Fluoropyridine	CAS-No. 372-48-5	Revision Date
2-Fluoropyridine	CAS-No. 372-48-5	Revision Date
New Jersey Right To Know Components 2-Fluoropyridine	CAS-No. 372-48-5	Revision Date

# **SECTION 16: Other information**

# **Further information**

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