CF PLUS CHEMICALS
*Fluoroalkylation and bioconjugation*

**MATERIAL SAFETY DATASHEET**
According to regulation (EC) No. 453/2010
Revision Date: 27.01.2022
Creation date: 01.06.2021
Version:1.0.2

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

### 1.1 Product identifiers

| | |
|---|---|
| Product name: | Sodium-2-azido-2,2-difluoroacetate |
| Brand: | CF Plus Chemicals |
| Cat. No.: | FAZ013 |
| CAS No.: | N/A |

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

| | |
|---|---|
| Identified uses: | Laboratory chemicals, Manufacture of substances |

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

| | |
|---|---|
| Company: | CF Plus Chemicals, s.r.o.<br>Karásek 1767/1<br>621 00 Brno – Řečkovice<br>Czech Republic |
| Telephone: | +420 606 117 375 |
| E-mail address: | sales@cfplus.cz |

### 1.4 Emergency telephone number

| | |
|---|---|
| Emergency phone: | +420 228 880 039 (CHEMTREC)<br>+420 224 919 293 / +420 224 915 402<br>(Toxicological Information Centre) |

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No. 1272/2008**

| | |
|---|---|
| Skin irrit. (Category 2), | H315 |
| Serious eye irritation (Category 2), | H319 |
| STOT – SE, Respiratory tract irritation (Category 3), | H335 |

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

### 2.2 Label elements

**Labelling according Regulation (EC) No. 1272/2008**

Pictogram

| | |
|---|---|
| Signal word | Danger |
| Hazard statements | |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| Precautionary statements | |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

| | |
|---|---|
| Synonyms: | Sodium 2-azido-2,2-difluoroacetate<br>Sodium salt of 2-azido-2,2-difluoroacetic acid |
| Formula: | $C_2F_2N_3NaO_2$ |
| Molecular weight: | 159.03 g/mol |
| CAS-No.: | N/A |

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance.

**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**
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**

Sand, carbon dioxide, dry chemical powder, or appropriate foam.

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

May emit toxic fumes under fire conditions including Carbon monoxide, Carbon dioxide, Nitrogen oxides, Fluorine gasses. Danger of containers bursting upon heating

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

No data available.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. 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 an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

### 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautious for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a freezer. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature -20 °C. Handle and store under inert gas. Heat, air and moisture sensitive. Work with precooled reagents.

### 7.3 Specific end uses

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

## SECTION 8: Exposure controls/personal protections

### 8.1 Control parameters

No data available

### 8.2 Exposure control

**Appropriate engineering controls**

Handle with accordance with good industrial hygiene and safety practice. Wash hands before breaks at the end of workday.

**Personal protective equipment**

**Eye/face protection**

Safety glasses with side-shields conforming to EN166. 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. The selected protective gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and muse be evaluated by an industrial hygienist and safety officer familiar with specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body protection**

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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**

| | | |
|---|---|---|
| | Appearance | |
| a) | Form | Solid |
| b) | Colour | White to off-white |
| c) | Odour | No data available |
| d) | Odour Threshold | No data available |
| e) | pH | No data available |
| f) | Melting point/Freezing point | No data available |
| g) | Initial boiling point and boiling range | No data available |
| h) | Flash point | No data available |
| i) | Evaporation rate | No data available |
| j) | Flammability (solid, gas) | No data available |
| k) | Upper/lower flammability or explosive limits | No data available |
| l) | Vapour pressure | No data available |
| m) | Vapour density | No data available |
| n) | Relative density | No data available |
| o) | Water solubility | No data available |
| p) | Partition coefficient: n-octanol/water | No data available |
| q) | Auto-ignition temperature | No data available |
| r) | Decomposition temperature | No data available |
| s) | Viscosity | No data available |
| t) | Explosive properties | Non explosive |
| u) | Oxidizing properties | No data available |

**Other safety information**

| | |
|---|---|
| Surface pension | No data available |
| Relative vapour density | No data available |

## SECTION 10: Stability and reactivity

10.1 **Reactivity**

Reactive towards reducing agents, low valent transition metal compounds, metals, bases, thiols and other good nucleophiles.

10.2 **Chemical stability**

Stable under recommended storage conditions.

10.3 **Possibility of hazardous reactions**

Avoid contact with strong oxidizing agent, strong reductants, metals, acids and bases.

10.4 **Conditions to avoid**

Heat, flame, sparks.

10.5 **Incompatible materials**

Reductants, acids and bases, metals, low valent transition metal compounds.

10.6 **Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions – carbon oxides, nitrogen oxides, hydrogen fluoride.

In the event of fire: see section 5.

## SECTION 11: Toxicological information

11.1 **Information on toxicological effects**

| | |
|---|---|
| Acute toxicity | No data available. |
| Skin corrosion/irritation | No data available. |
| Serious eye damage/eye irritation | No data available. |
| Respiratory or skin sensitisation | No data available. |
| Germ cell mutagenetic | No data available. |
| Carcinogenicity | IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| Reproductive toxicity | No data available. |
| Specific target organ toxicity – single exposure | No data available |
| Potential health effects- Inhalation | May be harmful if inhaled. Causes respiratory tract irritation. |
| Potential health effects- Ingestion | May be harmful if swallowed. |
| Potential health effects- Skin | May be harmful if absorbed through skin. |
| Potential health effects- Eyes | Causes serious eye irritation. |
| Specific target organ toxicity – repeated exposure | No data available. |
| Aspiration hazard | No data available. |
| Additional Information | RTECS: No data available. |

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

## 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 **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. Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but extra care in igniting as the material is highly flammable.

**Contaminated packaging**

Dispose of as unused product.

## SECTION 14: Transport information

14.1 **UN Number**

ADR/RID: - IMDG: - IATA: -

14.2 **UN proper shipping name**

ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 **Transport hazard class(es)**

ADR/RID: - IMDG: - IATA: -

14.4 **Packaging group**

ADR/RID: - IMDG: - IATA: -

14.5 **Environmental hazards**

ADR/RID: no IMDG: Marine pollutant: no IATA: no

14.6 **Special precautions for user**

No data available.

## SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 (REACH)
Regulation (EC) No. 1907/2008 (CLP)
Regulation (EC) No. 453/2010
Regulation (EU) No. 830/2015

15.2 **Chemical safety assessment**

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

## SECTION 16: Other information

**a) Changes in the revision**

**b) List of abbreviations**

| | |
|---|---|
| CAS | Chemical Abstracts Service |
| MSDS | Material Safety Data Sheet |
| IARC | International Agency for Research on Cancer |
| RTECS | Registry of Toxic Effects of Chemical Substances |
| PBT/vPvB | (persistant, bioacumulative and toxis) (very persistant and very bioacumulative) |
| ADR/RID | European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and Road (ADR) |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods Code |
| STOT – SE | Specific target organ toxicity – single exposure |

**c) Full text of H and P Statements referred to under sections 2 and 3.**

| | |
|---|---|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

## FUTHER INFORMATION

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