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|  <div>FORMEDIUM™ CREATING THE CULTURE FOR DISCOVERY</div> | <div>SAFETY DATA SHEET</div> | Page : 1 |
| | | Revised edition no : 1 |
| | | Date : 17/11/23 |
| | | Supersedes : 09/02/18 |
| <div>5-Fluoroorotic Acid Monohydrate</div> | <div>5-FOA</div> | |

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

1.1. Product identifier

Identification of the product : Raw material
 Product code : 5-Fluoroorotic Acid Monohydrate
 Trade name : 5-FOA
 CAS number : 207291-81-4
 EC No : 211-876-0
 Molecular Formula : C₅H₃FN₂O₄.H₂O
 Molecular Weight : 192.1 g/mol

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

Use : For research purposes only

1.3. Details of the supplier of the safety data sheet

Company identification **Formedium Ltd.**
 King's Lynn, England, PE31 6DJ
 Tel: +44(0)1485 609069
 Web: www.formedium.com
 E-mail: info@formedium.com

1.4. Emergency telephone number

Emergency phone nr : Tel: +44(0)1485 609069 (local time : 9.00 to 17.00)
 National Poison Information Centre :Europe UK : +44 0845 4647 (this service is only available to health professionals)
 See www.toxbase.org for a local poison centre

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272 / 2008


Hazard categories:
 Acute toxicity : Oral (Category 4), H302
 Skin irritation: (Category 2), H315
 Eye irritation: (Category 2), H319
 Specific Target Organ Toxicity - Single exposure: (Category 3), H335

Hazard Statements:
 H302 - Harmful if swallowed.
 H315 - Causes skin irritation.
 H319 - Causes serious eye irritation.
 H335 - May cause respiratory irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling
 5-Fluorouracil-4-carboxylic acid

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SECTION 2 Hazards identification (continued)

Labelling Regulation EC 1272/2008 (CLP)

• Hazard pictograms



: Warning

• Signal word

• Hazard statements

H302 - Harmful if swallowed.

H319 - Causes serious eye irritation.

H315 - Causes skin irritation.

H335 - May cause respiratory irritation.

• Precautionary statements

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

None under normal conditions.

SECTION 3 Composition/information on ingredients

3.1. Substances

Synonyms : 5-Fluorouracil-4-carboxylic acid
2,6-Dihydroxy-5-fluoropyrimidine-4-carboxylic acid
Sum formula : C₅H₃FN₂O₄.xH₂O
CAS No : 207291-81-4
EC No : 211-876-0
Mol. Weight : 174.09 g/mol

This product is hazardous.

Acute Tox 4. Skin Irrit 2. Eye Irrit. 2 STOT SE 3: H302 H315 H319 H335

Full text of H statements: see Section 16.

SECTION 4 First aid measures

4.1. Description of first aid measures

General Information: In all cases of doubt, or when symptoms persist, seek medical advice. Show this safety data sheet.

Inhalation: If breathed in, move person into fresh air. If not breathing give artificial respiration. Seek medical advice.

Skin contact: Wash skin with soap and water and rinse thoroughly. Seek medical attention if ill effect develops.

Eye contact: Keep eyelids open and rinse thoroughly with plenty of water. Seek medical advice.

Ingestion: Rinse mouth immediately with water. Seek medical attention if ill effect develops.


Never give anything by mouth to an unconscious person or a person with cramps.

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 information available.

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SECTION 5 Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray.
 Alcohol resistant foam.
 Dry extinguishing powder.
 Carbon Dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

If necessary, wear a self-contained breathing apparatus for firefighting.

5.4 Additional information

No data available.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing dust. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Use personal protective equipment. In case of fire : Evacuate personnel to safe areas.

6.2. Environmental precautions

Do not allow product to enter drains or surface water. Do not empty into drains. Dispose of this material and its container in a safe way.

6.3. Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Safe handling : see section 7

Personal protection equipment : see section 8

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.

Provide adequate exhaust ventilation at places where dust is formed.

Conditions to avoid : Generation / formation of aerosols.

Advice on protection against fire and explosion.

Fight fire with normal precautions from a reasonable distance.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels


Store in a cool, dry place. Keep container tightly closed in a dry and well ventilated area.

Advice on storage compatibility

Recommended storage temperature : - 20 °C.

7.3. Specific end use(s)

For research purposes only.

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SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Components 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 the workday.

Personal protective equipment

Eye / face protection

Wear 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 EN166 (EU).

Skin protection

When handling chemical substances, protective gloves must be worn with the CE label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place , concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above with the glove supplier.

Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves 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.

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 EN143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).


Control of environmental exposure

Do not let product enter drains.

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
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| Physical state | : crystalline |
| Colour | : white |
| Odour | : not determined |
| Odour threshold | : not determined |
| pH value (at 20°C) | : no data available |
| Melting point | : 278 °C - dec |
| Initial boiling point and boiling range: | no data available |
| Flash point | : no data available |
| Evaporation rate | : not determined |
| Flammability (solid, gas) | : not determined |
| Upper / Lower flammability | |
| Or explosive limits | : not determined |

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SECTION 9 Physical and chemical properties (continued)

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| Auto-ignition temperature | : not determined |
| Decomposition temperature | : not determined |
| Vapour pressure | : not determined |
| Vapour Density | : not determined |
| Relative density | : not determined |
| Water solubility | : not determined |
| Partition coefficient: | |
| n-octanol / water | : not determined |
| Viscosity | : not determined |
| Explosive properties | : not determined |
| Oxidizing properties | : not determined |

9.2. Other safety information

No data available.

SECTION 10 Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is chemically stable under recommended storage conditions (-20°C).

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials


Oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions – Carbon oxides, Nitrogen oxides (NO_x),

Hydrogen fluoride.

In the event of fire: see Section 5.

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SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral LD50 – Mouse - 981 mg/Kg
Skin corrosion / irritation : No data available.
Serious eye damage / eye irritation : No data available.
Respiratory or skin sensitisation : No data available.
Germ cell mutagenicity : 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 : Inhalation – May cause respiratory irritation.
Specific target organ toxicity – repeated exposure : No data available.
Aspiration hazard : No data available.
Additional information : RTECS: UV78700000

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

11.2. Additional Information

Endocrine disrupting properties

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12 Ecological information

12.1. Toxicity

No data available.

12.2. Persistence - degradability

This product has not been tested. 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.

12.7. Endocrine disrupting properties

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator with an afterburner or scrubber.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14 Transport information

14.1. UN Number

Not applicable

General information : Not classified as dangerous in the meaning of transport regulations

14.2. Proper shipping name

Not applicable

14.3. Transport Hazard Classification

Not applicable

14.4. Packing Group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable


SECTION 15 Regulatory information

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

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

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

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SECTION 16 Other information

Full text of H-statements referred to under sections 2 and 3.

H302 - Harmful if swallowed.
H319 - Causes serious eye irritation.
H315 - Causes skin irritation.
H335 - May cause respiratory irritation.

Further information :

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

Complete SDS revision

End of document