

## 6-Mercaptopurine monohydrate

Version: 4.2

Revision Date: 22.01.2025

SDS Number: 100000000297

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

#### 1.1 Product identifier

Trade name : 6-Mercaptopurine monohydrate  
REACH Registration Number : -  
CAS-No. : 6112-76-1  
EC-No. : 200-037-4  
Unique Formula Identifier : -

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

Use of the Sub-  
stance/Mixture : Active pharmaceutical ingredients  
  
Recommended restrictions : No data available  
on use

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

Company : Fermion Oy  
Street address : Koivu-Mankkaan tie 6 A  
Post-office box: : P.O. Box 28  
Postcode : 02101 Espoo, Finland  
Telephone : +358 10 4261  
E-mail address of person : chemicalsafety@orion.fi  
responsible for the SDS  
VAT Reg. No: : FI18552129

#### 1.4 Emergency telephone number

Poison Center : +358 800 147111  
+358 9 471 977

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Acute toxicity, Category 4	H302: Harmful if swallowed.
Carcinogenicity, Category 1B	H350: May cause cancer.
Germ cell mutagenicity, Category 1B	H340: May cause genetic defects.
Reproductive toxicity, Category 2	H361d: Suspected of damaging the unborn child.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3	H335: May cause respiratory irritation.
Skin irritation, Category 2	H315: Causes skin irritation.

For explanation of abbreviations see section 16.

#### 2.2 Label elements

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

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Hazard pictograms : 

Signal Word : Danger

### Hazard Statements

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H315	Causes skin irritation.
H350	May cause cancer.
H340	May cause genetic defects.
H361d	Suspected of damaging the unborn child.

### Precautionary Statements

#### General:

P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P501 Dispose of contents according to national and local law.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

### 2.3 Other hazards

Other hazards	: No data available
PBT	: No data available
vPvB	: No data available
Endocrine disrupting properties	: Ecological information: No data available Toxicological information: No data available

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Chemical name	CAS-No. EC-No. Registration-No	Concentration (% w/w)	M-Factor, SCL, ATE
6-Mercaptopurine monohydrate	6112-76-1 200-037-4		

**Other information** : No data available

### 3.2 Mixtures

Not applicable

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### SECTION 4: First aid measures

#### 4.1 Description of first-aid measures

- |                         |   |   |
|-------------------------|---|---|
| General advice          | : | Helpers should ensure their own protection.   |
| If inhaled              | : | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br>If appropriate, give oxygen.<br>If appropriate, give artificial respiration.<br>Get medical advice/attention. |
| In case of skin contact | : | Remove/ Take off immediately all contaminated clothing.<br>IF ON SKIN: Wash with soap and water.<br>Get medical advice/attention.   |
| In case of eye contact  | : | IF IN EYES: Rinse continuously with water for several minutes. Get medical advice/attention.  |
| If swallowed            | : | Rinse mouth.<br>Get medical advice/attention.   |

#### 4.2 Most important symptoms and effects, both acute and delayed

- |          |   |  |
|----------|---|--|
| Symptoms | : | See section 11 for symptoms of exposure. |
| Risks    | : | No data available                        |

#### 4.3 Indication of any immediate medical attention and special treatment needed

- |           |   |                   |
|-----------|---|-------------------|
| Treatment | : | No data available |
|-----------|---|-------------------|

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- |                              |   |  |
|------------------------------|---|--|
| Suitable extinguishing media | : | Carbon dioxide (CO <sub>2</sub> )<br>Foam<br>Water<br>Powder |
|------------------------------|---|--|

- |                                |   |                   |
|--------------------------------|---|-------------------|
| Unsuitable extinguishing media | : | No data available |
|--------------------------------|---|-------------------|

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

- |                                       |   |  |
|---------------------------------------|---|--|
| Specific hazards during fire fighting | : | May emit toxic fumes of oxides of carbon, nitrogen and sulphur during heating or fire. |
| Hazardous combustion products         | : | No data available  |

#### 5.3 Advice for firefighters

- |  |   |   |
|--|---|---|
| Special protective equipment for fire-fighters | : | Isolating breathing apparatus eg. compressed breathing apparatus and protective clothing. |
| Specific extinguishing methods                 | : | No data available   |

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Further information : No data available

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### SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment as required.

#### 6.2 Environmental precautions

Environmental precautions : Data not available.

#### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Collect spilled powder without dusting into tight closed container.

#### 6.4 Reference to other sections

See Section 8 and 13

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : Handle in well-ventilated space.  
All exposure must be avoided.

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

Requirements for storage areas and containers : Store in a well ventilated place.  
Keep container tightly closed.  
Keep in a dry place.  
Keep cool.  
See incompatible materials in section 10.5.

Packaging material : Suitable material: No data available  
Unsuitable material: No data available

#### 7.3 Specific end use(s)

Specific use(s) : No information identified.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

Engineering measures : All exposure must be avoided.  
Handle in closed systems or use an efficient local exhaust if dust, vapours or mists may release into workplace air. If technical measures cannot prevent exposure, wear personal protective equipment.

#### Personal protective equipment

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Respiratory protection	:	In open handling use respirator (P3) with a minimum protection factor of 200. See standard working procedures/instructions or department's instructions for more detailed protection measures.
Eye/face protection	:	Use protective goggles.
Hand protection	:	
Remarks	:	Use protective gloves (e.g. nitrile or neopren gloves).
Skin and body protection	:	In dust making work use disposal overalls and extra throwaway sleeves.
Protective measures	:	No data available

### Environmental exposure controls

Air	:	The environmental characteristics of this substance have not been fully investigated.
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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	:	crystalline
Physical state	:	solid
Color	:	yellow
Odor	:	odorless
Odor Threshold	:	No data available
Melting point/range	:	308 °C
Boiling point/boiling range	:	No data available
Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Self-Accelerating decomposition temperature (SADT)	:	No data available
pH	:	No data available

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Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Flow time	: No data available
Solubility(ies)	
Water solubility	: Almost insoluble
Solubility in other solvents	: No data available
Dissolution Rate	: No data available
Partition coefficient: n-octanol/water	: No data available
Dispersion Stability	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Density	: No data available
Bulk density	: No data available
Relative vapor density	: No data available
Dissociation constant	: No data available
Particle characteristics	: No data available

### 9.2 Other information

Self-ignition	: No data available
Hygroscopic properties	: No data available
Henry's Constant	: No data available
Further information	: No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under normal conditions.

### 10.2 Chemical stability

Stable when stored and handled according to instructions of use.

### 10.3 Possibility of hazardous reactions

Hazardous reactions	: Not expected to occur.
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### **10.4 Conditions to avoid**

Conditions to avoid : Light

### **10.5 Incompatible materials**

Materials to avoid : Strong oxidants  
Acids  
Bases

### **10.6 Hazardous decomposition products**

May emit toxic fumes of oxides of carbon, nitrogen and sulphur during heating or fire.

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## **SECTION 11: Toxicological information**

### **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

#### **Acute toxicity**

Health hazard information : Harmful if swallowed.

Acute oral toxicity : LD50 (Rat): 425 mg/kg  
LD50 (Mouse): 1 250 mg/kg

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Acute toxicity (other routes of administration) : No data available

#### **Skin corrosion/irritation**

Result : Causes skin irritation.

#### **Serious eye damage/eye irritation**

Result : Causes serious eye irritation.

#### **Respiratory or skin sensitization**

No data available

#### **Germ cell mutagenicity**

Genotoxicity in vitro : May cause genetic defects.

Genotoxicity in vivo : No data available

#### **Carcinogenicity**

Remarks : May cause cancer.

#### **Reproductive toxicity**

Effects on fertility : Suspected of damaging the unborn child.

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TDLO = 4 mg/kg (6-9 D preg; i.p.hamster) -> effects on fertility  
TDLO = 250 mg/kg (5 D male; i.p. mouse) -> effects on fertility

Effects on fetal development : No data available

### **STOT-single exposure**

No data available

### **STOT-repeated exposure**

No data available

### **Repeated dose toxicity**

No data available

### **Aspiration toxicity**

No data available

## **11.2 Information on other hazards**

### **Endocrine disrupting properties**

No data available

### **Experience with human exposure**

General Information : No data available

Inhalation : No data available

Skin contact : No data available

Eye contact : No data available

Ingestion : No data available

### **Toxicology, Metabolism, Distribution**

Remarks : No data available

### **Neurological effects**

Remarks : No data available

### **Further information**

Remarks : May cause respiratory irritation.

### **Other Health Hazards**

No data available



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### **SECTION 12: Ecological information**

#### **12.1 Toxicity**

Toxicity to fish	:	No data available
Toxicity to daphnia and other aquatic invertebrates	:	No data available
Toxicity to algae/aquatic plants	:	No data available
Toxicity to fish (Chronic toxicity)	:	No data available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	No data available
Toxicity to microorganisms	:	No data available
Toxicity to soil dwelling organisms	:	No data available
Plant toxicity	:	No data available
Sediment toxicity	:	No data available
Toxicity to terrestrial organisms	:	No data available

#### **Ecotoxicology Assessment**

Acute aquatic toxicity	:	No data available
Chronic aquatic toxicity	:	No data available
Toxicity Data on Soil	:	No data available
Other organisms relevant to the environment	:	No data available

#### **12.2 Persistence and degradability**

Biodegradability	:	No data available
Biochemical Oxygen Demand (BOD)	:	No data available
Chemical Oxygen Demand (COD)	:	No data available
BOD/COD	:	No data available
ThOD	:	No data available

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BOD/ThOD : No data available

Dissolved organic carbon (DOC) : No data available

Physico-chemical removability : No data available

Stability in water : No data available

Impact on Sewage Treatment : No data available

Photodegradation : No data available

### **12.3 Bioaccumulative potential**

Bioaccumulation : No data available

Partition coefficient: n-octanol/water : No data available

### **12.4 Mobility in soil**

Mobility : No data available

Distribution among environmental compartments : No data available

Stability in soil : No data available

### **12.5 Results of PBT and vPvB assessment**

Assessment : No data available

### **12.6 Endocrine disrupting properties**

No data available

### **12.7 Other adverse effects**

Environmental fate and pathways : No data available

Adsorbed organic bound halogens (AOX) : No data available

Ozone-Depletion Potential : No data available

Additional ecological information : No data available

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Chemical incinerator equipped with an afterburner and scrubber is the recommended method of disposal for this material. Observe all local and national regulations when disposing of this material.

Contaminated packaging : Chemicals must be disposed of in compliance with the respective national regulations.

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### SECTION 14: Transport information

#### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

#### 14.2 UN proper shipping name

-

#### 14.3 Transport hazard class(es) (ADR/RID, IMDG, ICAO/IATA)

ADR/RID: This product is not regulated under the transport regulations.

IMDG: This product is not regulated under the transport regulations.

IATA: This product is not regulated under the transport regulations.

#### 14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

#### 14.5 Environmental hazards

ADR/RID: -

IMDG: -

IATA: -

#### 14.6 Special precautions for user

Tunnel restriction code : No data available

Further information for transport : No data available

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not applicable

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### SECTION 15: Regulatory information

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

The product has not been fully tested.

#### 15.2 Chemical Safety Assessment

No

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### SECTION 16: Other information

#### Full text of H-Statements

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H315	Causes skin irritation.
H350	May cause cancer.
H340	May cause genetic defects.
H361d	Suspected of damaging the unborn child.

#### Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Carc.	:	Carcinogenicity
Muta.	:	Germ cell mutagenicity
Repr.	:	Reproductive toxicity
Eye Irrit.	:	Eye irritation
STOT SE	:	Specific target organ toxicity - single exposure
Skin Irrit.	:	Skin irritation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road

AIIC - Australian Inventory of Industrial Chemicals

ASTM - American Society for the Testing of Materials

bw - Body weight

CLP - Classification Labelling Packaging Regulation

Regulation (EC) No 1272/2008

CMR - Carcinogen, Mutagen or Reproductive Toxicant

DIN - Standard of the German Institute for Standardisation

DSL - Domestic Substances List (Canada)

ECHA - European Chemicals Agency

EC-Number - European Community number

ECx - Concentration associated with x% response

ELx - Loading rate associated with x% response

EmS - Emergency Schedule

ENCS - Existing and New Chemical Substances (Japan)

ErCx - Concentration associated with x% growth rate response

GHS - Globally Harmonized System

GLP - Good Laboratory Practice

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IC50 - Half maximal inhibitory concentration

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ICAO - International Civil Aviation Organization  
IECSC - Inventory of Existing Chemical Substances in China  
IMDG - International Maritime Dangerous Goods  
IMO - International Maritime Organization  
ISHL - Industrial Safety and Health Law (Japan)  
ISO - International Organisation for Standardization  
KECI - Korea Existing Chemicals Inventory  
LC50 - Lethal Concentration to 50 % of a test population  
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)  
MARPOL - International Convention for the Prevention of Pollution from Ships  
n.o.s. - Not Otherwise Specified  
NO(A)EC - No Observed (Adverse) Effect Concentration  
NO(A)EL - No Observed (Adverse) Effect Level  
NOELR - No Observable Effect Loading Rate  
NZIoC - New Zealand Inventory of Chemicals  
OECD - Organization for Economic Co-operation and Development  
OPPTS - Office of Chemical Safety and Pollution Prevention  
PBT - Persistent, Bioaccumulative and Toxic substance  
PICCS - Philippines Inventory of Chemicals and Chemical Substances (Q)SAR - (Quantitative) Structure Activity Relationship  
REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
SADT - Self-Accelerating Decomposition Temperature  
SDS - Safety Data Sheet  
SVHC - substance of very high concern  
TCSI - Taiwan Chemical Substance Inventory  
TECI - Thailand Existing Chemicals Inventory  
TRGS - Technical Rule for Hazardous Substances  
TSCA - Toxic Substances Control Act (United States)  
UN - United Nations  
vPvB - Very Persistent and Very Bioaccumulative

### Further information

Other information : No data available

Sources of key data used to compile the Material Safety Data Sheet : Information provided by the supplier

Information which has been : Updated section / sections:

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