

# Safety Data Sheet

Revision Date: 10/3/2019

## Section 1: Chemical Identification

### 1.1 Chemical Identification

**Product Name:** Methotrexate Sodium Salt  
**Alternative Name:** (+)-Amethopterin, Methylaminopterin, Antifolan  
**Catalog Number:** M-980

### 1.2 Relevant Uses and Uses Advised Against

**Recommended use:** This product is not for use in humans. It is for research purposes only.

### 1.3 Supplier Contact Information

**Distributed by:** Gold Biotechnology, Inc.  
 1328 Ashby Rd.  
 St. Louis, MO 63132  
**Phone:** (314) 890-8778  
**Fax:** (314) 890-0503  
**Email:** [contactgoldbio86@goldbio.com](mailto:contactgoldbio86@goldbio.com)

### 1.4 Emergency Contact Information

**Emergency Phone:** (800)248-7609 (Monday-Friday, 9:00 a.m. – 5:00 p.m. CST)

## Section 2: Hazardous Information

### 2.1 GHS Classification

Acute Toxicity, Oral (Category 3)  
 Skin Irritation (Category 2)  
 Eye Irritation (Category 2A)  
 Reproductive Toxicity (Category 1B)

### 2.2 GHS Label Elements, Including Precautionary statements



**DANGER!**

### 2.3 Hazard Statements

**H301:** Toxic if swallowed  
**H315:** Causes skin irritation  
**H319:** Causes serious eye irritation  
**H341:** Suspected of causing genetic defects  
**H360:** May damage fertility or the unborn child

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## **2.4 Precautionary Statements**

P201: Obtain special instructions before use  
P202: Do not handle until all safety precautions have been read and understood  
P264: Wash skin thoroughly after handling  
P270: Do not eat, drink or smoke when using this product  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P281: Use personal protective equipment as required  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P302+352: IF ON SKIN: Wash with soap and water  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
P308+313: IF exposed or concerned: Get medical advice/attention  
P321: Specific treatment (see First Aid Measures on this label)  
P330: Rinse mouth  
P332+313: If skin irritation occurs: Get medical advice/attention  
P337+313: If eye irritation persists get medical advice/attention  
P362: Take off contaminated clothing and wash before reuse  
P405: Store locked up  
P501: Dispose of contents/container to an approved waste disposal plant

## **2.8 HMIS Classification**

Health Hazard:	2
Chronic Health Hazard:	*
Flammability:	1
Physical Hazards:	0

## **2.9 NFPA Rating**

Health Hazard:	2
Fire:	1
Reactivity Hazard:	0

# **Section 3: Composition/Information on Ingredients**

## **3.1 Composition**

Identity:	Methotrexate Sodium Salt
IUPAC:	disodium;(2S)-2-[[4-[(2,4-diaminopteridin-6-yl)methyl-methylamino]benzoyl]amino]pentanedioate
Synonyms:	(+)-Amethopterin, Methylaminopterin, Antifolan
CAS Number:	7413-34-5
Molecular Formula:	C <sub>20</sub> H <sub>20</sub> N <sub>8</sub> Na <sub>2</sub> O <sub>5</sub>
Molecular Weight:	498.40 g/mol

# **Section 4: First Aid Measures**

## **4.1 Detailed First Aid Measures**

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

<b>Skin:</b>	Immediately wash skin copiously with soap and water. Take victim immediately to hospital. Consult a physician.
<b>Eye:</b>	Immediately rinse out with water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.
<b>Ingestion:</b>	Wash out mouth with water. Drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person.
<b>Notes to Physician:</b>	Treat symptomatically and supportively.

#### **4.2 Most Important Symptoms And Effects, Either Acute Or Delayed**

The most important known symptoms and effects are described in the labeling (see section 2). And /or in section 11.

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

Not available

## **Section 5: Fire Fighting Measures**

### **5.1 Conditions of flammability:**

### **5.2 Suitable extinguishing media:**

Alcohol-resistant foam, dry chemical or carbon dioxide. Do not use water jet.

### **5.3 Specific hazards arising from the chemical**

During a fire, highly toxic gases may be generated by thermal decomposition or combustion – Carbon oxides, Nitrogen oxides (NOx)

### **5.4 Specific protective actions for fire-fighters:**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## **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.

### **6.2 Environmental precautions:**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up:**

Soak up with absorbent material, discard.

## **Section 7: Handling and Storage**

### **7.1 Precautions for safe handling:**

Always wear personal protective equipment (PPE, see section 8).

### **7.2 Conditions for safe storage, including and incompatibilities:**

Keep container tightly closed. Keep in a dry place. Product is light sensitive. Hygroscopic.

Store desiccated at 4°C. Protect from light.

## **Section 8: Exposure Controls / Personal Protection**

### **8.1 Control Parameters:**

Contains no substances with occupational exposure limit values.

### **8.2: Appropriate engineering controls:**

Contains no substances with occupational exposure limit values.

### **8.3 Personal Protective Equipment (PPE):**

**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 outer surface of glove - 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 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 full-face particle respirator type N100 (US) or type P3 (EN 143) 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).

**Other Protective Clothing or Equipment:** Wear appropriate protective clothing to prevent exposure.

## **Section 9: Physical and Chemical Properties**

### **9.1 General chemical and physical properties**

<b>Appearance:</b>	Yellow Powder
<b>Odor:</b>	Not Available
<b>Odor Threshold:</b>	Not Available
<b>pH:</b>	Not Available
<b>Melting Point:</b>	Not Available
<b>Freezing Point:</b>	Not Available
<b>Boiling Point/Range:</b>	Not Available
<b>Flash Point:</b>	Not Available

<b>Evaporation Rate:</b>	Not Available
<b>Lower Explosion Limit:</b>	Not Available
<b>Upper Explosion Limit:</b>	Not Available
<b>Vapor Pressure:</b>	Not Available
<b>Vapor Density:</b>	Not Available
<b>Relative Density:</b>	Not Available
<b>Solubility:</b>	Water Soluble
<b>Partition Coefficient n-octanol/water:</b>	Not Available
<b>Auto-Ignition Temperature:</b>	Not Available
<b>Decomposition Temperature:</b>	Not Available
<b>Viscosity:</b>	Not Available

## **Section 10: Stability and Reactivity Data**

### **10.1 Reactivity:**

Not available

### **10.2 Chemical Stability:**

Stable under recommended storage conditions.

### **10.3 Possibility of hazardous reactions:**

Not available.

### **10.4 Conditions to avoid:**

Incompatible materials, Moisture, Light

### **10.5 Incompatible materials:**

Strong oxidizing agents, Strong acids

### **10.6 Hazardous decomposition products:**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)

## **Section 11: Toxicological Information**

### **11.1 Toxicological effects**

#### **Acute toxicity:**

Methotrexate Sodium Salt    Intraperitoneal:    LD<sub>50</sub> (Mouse) =284 mg/kg

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

Not available.

**Respiratory or skin sensitization:**

Not available.

**Germ cell mutagenicity:**

Laboratory experiments have shown mutagenic effects

**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.
- ACGIH:** 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 ACGIH.
- NTP:** 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 NTP.
- OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:**

May cause congenital malformation in the fetus. Presumed human reproductive toxicant. Intraperitoneal TDLo (pre-mating) Mouse (male): 120 mg/kg, 60 days pre-mating; Remarks: Reproductive – Paternal Effects –Testes, epididymis, sperm duct. Reproductive –reduced male fertility index.

**STOT-single exposure:**

Not available.

**STOT-repeated exposure:**

Not available.

**Aspiration hazard:**

Not available.

**Likely routes of exposure:**

Respiratory organs, mouth, skin, and eyes.

**Symptoms of exposure:**

Nausea, dizziness, headache, changes in blood count, anemia, drowsiness, gastrointestinal disturbance, vomiting, diarrhea, fever, hair loss, mouth ulcers, fatigue, chills, anorexia, blurred vision, increases susceptibility to infections.

**Additional Information:**

RTECS: MA1232000

Potential Health Effects - Blood irregularities - based on human evidence

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

## **Section 12: Ecological Information**

**Gold Biotechnology**

St. Louis, MO

Ph: (314)890-8778

Web: [www.goldbio.com](http://www.goldbio.com)

Email: [contactgoldbio86@goldbio.com](mailto:contactgoldbio86@goldbio.com)

**12.1 Toxicity:**

Not available.

**12.2 Persistence and degradability:**

Not available.

**12.3 Bioaccumulative potential:**

Not available.

**12.4 Mobility in soil:**

Not available.

**12.5 Other adverse effects:**

None.

## **Section 13 Disposal Considerations**

Dispose of product in accordance with local rules and regulations.

## **Section 14: Transport Information**

**14.1 US Department of Transportation (DOT)**

**UN Number:** 1544  
**Proper shipping name:** Alkaloids, solid, n.o.s. (Methotrexate sodium)  
**Class:** 6.1  
**Packing Group:** III  
**Marine Pollutant:** No

**14.2 International Maritime Dangerous Goods (IMDG):**

**UN Number:** 1544  
**Proper shipping name:** ALKALOIDS, SOLID, N.O.S. (Methotrexate)  
**Class:** 6.1  
**Packing Group:** III  
**Marine Pollutant:** No

**14.2 International Air Transportation Association (IATA)**

**UN Number:** 1544  
**Proper shipping name:** Alkaloids, solid, n.o.s. (Methotrexate sodium)  
**Class:** 6.1  
**Packing Group:** III  
**Marine Pollutant:** No

## **Section 15: Regulatory Information**

**SARA 302 Components:**

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

**SARA 313 Components:**

SARA 313: 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:**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components:**

Methotrexate Sodium Salt

CAS - No.

7413-34-5

**Pennsylvania Right To Know Components:**

Methotrexate Sodium Salt

CAS - No.

7413-34-5

**New Jersey Right To Know Components:**

Methotrexate Sodium Salt

CAS - No.

7413-34-5

**California Prop. 65 Components:**

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Methotrexate Sodium Salt CAS-No. [7413-34-5] Revision Date: 09-28-2007

## **Section 16: Other Information**

While Gold Biotechnology, Inc. believes the information contained herein to be true and accurate, it has relied on information provided by others. Gold Biotechnology, INC. makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or with respect to the results to be obtained from the use of the product. Gold Biotechnology, Inc. disclaims all liability with respect to the use of this product, including without limitation, liability for injury to the user or third-party persons.

**Preparation Information**

Gold Biotechnology

Content/Marketing Department

(800) 248-7609

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**Gold Biotechnology**

St. Louis, MO

Ph: (314)890-8778

Web: [www.goldbio.com](http://www.goldbio.com)

Email: [contactgoldbio86@goldbio.com](mailto:contactgoldbio86@goldbio.com)