

# **Safety Data Sheet**

Revision Date: 2/23/2024

# **Section 1: Chemical Identification**

# **1.1 Chemical Identification**

Product Name:Terbinafine hydrochlorideAlternative Name:T-265

# **1.2 Relevant Uses and Uses Advised Against**

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

# **<u>1.3 Supplier Contact Information</u>**

1 4 Fmergency Contact Information	
Email:	contactgoldbio86@goldbio.com
Fax:	(314) 890-0503
Phone:	(314) 890-8778
	St. Louis, MO 63132
	1328 Ashby Rd.
Distributed by:	Gold Biotechnology, Inc.

### **<u>1.4 Emergency Contact Information</u>**

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

# Section 2: Hazardous Information

# **2.1 GHS Classification**

Skin Irritation (Category 2) Eye Irritation (Category 2A) Specific Target Organ Toxicity, Single Exposure (Category 3) Acute Aquatic Toxicity (Category 1) Chronic Aquatic Toxicity (Category 1)

# 2.2 GHS Label Elements, Including Precautionary statements



Warning

# **2.3 Hazard Statements**

H315: Causes skin irritation

H319: Causes serious eye irritation

H335: May cause respiratory irritation

H410: Very toxic to aquatic life with long lasting effects

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### 2.4 Precautionary Statements

P261: Avoid breathing dust/fume/gas/mist/vapours/spray

P264: Wash skin thoroughly after handlingP271: Use only outdoors or in a well-ventilated areaP273: Avoid release to the environment

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P280: Wear protective gloves/protective clothing/eye protection/face protection P302+352: IF ON SKIN: Wash with soap and water

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

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

P391: Collect spillage

P403+233: Store in a well ventilated place. Keep container tightly closed 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:	0
Physical Hazards:	0
2.9 NFPA Rating	
Health Hazard:	2

#### Health Hazard: Fire: Reactivity Hazard:

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

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# **3.1 Composition**

Identity:	Terbinafine hydrochloride
IUPAC:	(E)-N,6,6-trimethyl-N-(naphthalen-1-ylmethyl)hept-2-en-4-yn-1-amine; hydrochloride
Synonyms:	Lamisil
CAS Number:	78628-80-5
Molecular Formula:	C <sub>21</sub> H <sub>26</sub> CIN
Molecular Weight:	327.89 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.
Skin:	Immediately wash skin copiously with soap and water. Take victim

	immediately to hospital. Consult a physician.
Eye:	Immediately rinse out with water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.
Ingestion:	Wash out mouth with water. Drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person.
Notes to Physician:	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 section2). 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:

Combustible.

### 5.2 Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 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), Hydrogen chloride gas.

### 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.

Store at room temperature.

# 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

Appearance:	White powder
Odor:	Not Available
Odor Threshold:	Not Available
pH:	Not Available
Melting Point:	Not Available
Freezing Point:	Not Available
Boiling Point/Range:	Not Available
Flash Point:	Not Available

Not Available
Not Available
log Pow: 5.342
Not Available
Not Available
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.

**10.5 Incompatible materials:** 

Strong oxidizing agents.

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

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

# Section 11: Toxicological Information

### **11.1 Toxicological effects**

Acute toxicity:

Terbinafine hydrochloride Skin:

Rat - >2,000 mg/kg

Skin corrosion/irritation:

Not available.

#### **Respitory or skin sensitization:**

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Ptosis

#### Germ cell mutagenicity:

Not 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.
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:**

Not available.

#### **STOT-single exposure:**

Inhalation - May cause respiratory irritation.

#### **STOT-repeated exposure:**

Not available.

#### **Aspiration hazard:**

Not available.

#### Likely routes of exposure:

Respiratory organs, mouth, skin, and eyes.

#### Symptoms of exposure:

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

#### **Additional Information:**

Behavioral: Ataxia. Blood: Changes in spleen.

# **Section 12: Ecological Information**

12.1 Toxicity:

Not available.

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

Inherent biodegradability.

**12.3 Bioacumulative potential:** 

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Does not bioaccumulate.

#### 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)

This material is considered to be non-hazardous for transport.

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

UN Number:	3077
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Terbinafine hydrochloride)
Class:	9
Packing Group:	III
Marine Pollutant:	Yes

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

UN Number:	3077
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Terbinafine hydrochloride)
Class:	9
Packing Group:	III
Marine Pollutant:	Yes

#### **Further Information**

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods >5L for liquids or >5kg for solids. Packages smaller than or equal to 5 kg / L, not dangerous goods of Class 9.

# 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: No SARA Hazards. Massachusetts Right To Know Components: CAS - No. Terbinafine hydrochloride 78628-80-5 Pennsylvania Right To Know Components: CAS - No. Terbinafine hydrochloride 78628-80-5 **New Jersey Right To Know Components:** CAS - No. Terbinafine hydrochloride 78628-80-5 California Prop. 65 Components: This product does not contain any chemical known to the State of California to cause

cancer, birth, or any other reproductive defects.

# 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.

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