

## GUANINE

### SECTION 1: PRODUCT IDENTIFICATION

**Product Name:** Guanine  
**Product Code:** TMB 038  
**CAS#:** 73-40-5  
**Synonym:** Not available.  
**Chemical Name:** 2-Amino-6-hydroxypurine  
**Chemical Formula:** C<sub>5</sub>H<sub>5</sub>N<sub>5</sub>O  
**Formula Weight:** 151.13

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

**Composition:**  
**Name:** Guanine  
**Toxicological Data on Ingredients:** Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335

### SECTION 3: HAZARDS IDENTIFICATION

**Classification of the substance or mixture**  
Classification according to Regulation (EC) No 1272/2008  
Skin irritation (Category 2), H315  
Eye irritation (Category 2), H319  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
**Potential Acute Health Effects:** Not available  
**Potential Chronic Health Effects:** Not available.  
**Carcinogenic Effects:** Not available.  
**Mutagenic Effects:** Not available.  
**Teratogenic Effects:** Not available.  
**Developmental Toxicity:** Not available.

### SECTION 4: FIRST AID MEASURES

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.  
**Skin Contact:** Wash off immediately with soap and plenty of water. Cover the irritated skin with emollient. Immediate medical attention is required.  
**Serious Skin Contact:** Not available.  
**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.  
**Serious Inhalation:** Not Available.  
**Ingestion:** Do Not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.  
**Serious Ingestion:** Not available.

### SECTION 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**  
Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder



**Special hazards arising from the substance or mixture**

Carbon oxides

Nitrogen oxides (NOx)

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

**Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions 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.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions  
Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

**Storage conditions:**

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

**Storage class:**

Not available

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Eye/face protection**

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.

**Respiratory protection**

Respiratory protection is not required. If protection from nuisance levels of dusts are desired, use type N95 or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

|                                      |   |                    |
|--------------------------------------|---|--------------------|
| <b>Physical state and appearance</b> | : | Crystalline Powder |
| <b>Odor</b>                          | : | Not available      |
| <b>Color</b>                         | : | White              |
| <b>Molecular Weight</b>              | : | Not available      |
| <b>pH</b>                            | : | Not available      |
| <b>Boiling Point</b>                 | : | Not available      |
| <b>Melting Point</b>                 | : | Not available      |
| <b>Critical Temperature</b>          | : | Not available      |



|                        |   |               |
|------------------------|---|---------------|
| Specific Gravity       | : | Not available |
| Vapor Pressure         | : | Not available |
| Vapor Density          | : | Not available |
| Volatility             | : | Not available |
| Odor Threshold         | : | Not available |
| Water/Oil Dist. Coeff. | : | Not available |
| Ionicity (in Water)    | : | Not available |
| Dispersion Properties  | : | Not available |
| Solubility             | : | Not available |

### SECTION 10: STABILITY AND REACTIVITY DATA

**Stability:** The product is chemically stable under standard ambient conditions (room temperature).

**Instability Temperature:** Not available

**Conditions of Instability:** Not available

**Incompatibility with various substances:** Not available

**Special Remarks on Corrosivity:** Non-corrosive.

**Special Remarks on Reactivity:** Not available

**Possibility of hazardous reactions:** Violent reactions possible with: Strong oxidizing agents B

**Hazardous decomposition products:** In case of fire.

### SECTION 11: TOXICOLOGICAL INFORMATION.

**Acute Toxicity:**

Oral: No data available

Inhalation: No data available

Dermal: No data available

**Inhalation:** No data available

**Dermal:** No data available

**Routes of Entry:** No data available

**Toxicity to Animals:**

LD50 Oral - Rat - female - 773,6 mg/kg

LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg

**Chronic Effects on Humans:** Not available

**Other Toxic Effects on Humans:** Not available

**Special Remarks on Toxicity to Animals:** Not available

**Special Remarks on other Toxic Effects on Humans:** Not available

**Potential Health :** Liver - Irregularities - Based on Human Evidence

### SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity:**

Toxicity to daphnia static test EC50 - Daphnia magna (Water flea) - 70,2 mg/l - 48 h  
invertebrates

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 33,5 mg/l - 72 h

Toxicity to bacteria static test EC10 - Pseudomonas putida - ca. 7.125 mg/l - 18 h

**BOD and COD:** Not available

**Products of Biodegradation:**

Not available.

**Toxicity of the Products of Biodegradation:** Not available

**Special Remarks on the Products of Biodegradation:** Not Available

### SECTION 13: DISPOSAL CONSIDERATIONS



**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**SECTION 14: TRANSPORT INFORMATION**

**UN number:**

**ADR/RID:**

**IMDG:**

**IATA:**

**UN proper shipping name**

**ADR/RID:** Not dangerous goods

**IMDG:** Not dangerous goods

**IATA:** Not dangerous goods

**Transport hazard class (es):**

**ADR/RID:**

**IMDG:**

**IATA:**

**Packaging group:**

**ADR/RID:**

**IMDG:**

**IATA:**

**Environmental hazards:**

**ADR/RID:** no

**IMDG Marine pollutant:** no

**IATA:** no

**SECTION 15: REGULATORY INFORMATION**

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

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

**Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16: OTHER INFORMATION**

**References: Full text of H AND R-Statements:** Not available.

**Other Special Considerations:** Not available

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