



Health	0
Fire	0
Reactivity	0
Personal Protection	

## Material Safety Data Sheet

### GOT/AST enzymes, R1

#### 1: Chemical Product and Company Identification

**Product Name:** GOT/AST enzymes, R1

**Contact information:**

**Catalog Code:** 21560013

**bioWORLD**

4150 Tuller Rd

**CAS#:** Not available.

Suite 228, Dublin, OH 43017, USA

**RTECS:** Not available.

For information, call: 614-792-8680

Fax Number: 614-792-8685

**TSCA:** TSCA 8(b) inventory : No products were found.

Order Online: [www.bio-world.com](http://www.bio-world.com)

**CI#:** Not available.

E-mail : [save@bio-world.com](mailto:save@bio-world.com)

**Synonym:** Not available.

**In case of a chemical emergency, contact local hospital.**

**Chemical Name:** GOT/AST enzymes, R1

**For non-emergency assistance, call: 1-800-860-9729**

**Chemical Formula:** Not available.

#### 2: Composition and Information on Ingredients

##### Composition:

Name	CAS#	% by Weight
Sodium azide		
Fillers	26628-22-8	1-2%
Additives-non-hazardous substances		

##### Toxicological Data on Ingredients:

###### Sodium azide

LD<sub>50</sub> (Oral, Rat): 27 mg/kg

LD<sub>50</sub> (Dermal, Rabbit): 20 mg/kg

LD<sub>50</sub> (Oral, Human): 143 mg/kg.

#### 3: Hazards Identification

**Potential Acute Health Effects:** Irritating to eyes, respiratory system and skin.

Toxic if swallowed.

Over exposure to sodium azide will lead to headache, nausea, blurred vision, dizziness, vomiting and low blood pressure.

Large dosage will lead to severe injury and death.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

#### 4: First Aid Measures

**Eye Contact:** In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

**Skin Contact:** In case of contact, immediately wash skin with soap and copious amounts of water.

**Serious Skin Contact:** In case of contact, immediately wash skin with soap and copious amounts of water.

**Inhalation:** If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**Serious Inhalation:** Not available.

**Ingestion:** If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Serious Ingestion:** Not available.

#### 5: Fire and Explosion Data

**Flammability of the Product:** Non-combustible.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Product of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Will produce irritating, toxic and/or corrosive gases.

**Explosion Hazards in Presence of Various Substances:**  
Not available.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Dry chemical powder.

LARGE FIRE: Water spray. Carbon dioxide or appropriate foam.

**Special Remarks on Fire Hazards:** Wear self-contained breathing apparatus and protective clothing to Prevent contact with skin and eyes.  
Use water spray to cool fire-exposed containers.

**Special Remarks on Explosion Hazards:** Not available.

**6: Accidental Release Measures**

**Small Spill:** Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pick up is complete.  
Any liquid residues should be absorbed by use of kitty litter or similar and placed into a labeled container for disposal.

**Large Spill:** Not available.

**7: Handling and Storage**

**Precautions:** Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage:** Store in a cool place and out of direct sunlight.

Store away from strong mineral acids, lead, copper, mercury, silver and oxidizing agents.

Store in original packages as approved by manufacturer. The unopened reagents are stable until the expiration date stated on the label when stored at 2 - 8°C.

**8: Exposure Controls/Personal Protection**

**Engineering Controls:** Toxic material. Single significant exposure may cause severe injury. Maintain adequate ventilation at all times.

**Personal Protection:** Respiratory : Government approved respirator.

Hand: Chemical resistant gloves.

Eye: Safety glasses.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Boots. Dust respirator. Gloves.

**Exposure Limits:** Not available.

**9: Physical and Chemical Properties**

**Physical State and Appearance:** Powder.

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** Not available.

**Color:** White to off-white.

**pH(1% soln/water):** 7.77 - 7.99 @ 19-22 ° c.

**Boiling Point:** Not available.

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** Not available.

**Vapour 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:** Completely miscible in water.

#### 10: Stability and Reactivity Data

**Stability:** Stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Strong acids.

**Incompatibility with various substances:** Strong mineral acids (Sulfuric, Nitric and Hydrochloric) and oxidizing agents.

Lead, copper, mercury, silver and other heavy metals salts, when mixed with sodium azide (in solution), will produce highly unstable and explosive compounds.

**Corrosivity:** Not available.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

#### 11: Toxicological Information

**Routes of Entry:** Skin contact. Eye contact. Ingestion. Inhalation.

**Toxicity to Animals:**

**Sodium azide**

LD<sub>50</sub> (Oral, Rat): 27 mg/kg

LD<sub>50</sub> (Dermal, Rabbit): 20 mg/kg

LD<sub>50</sub> (Oral, Human): 143 mg/kg.

**Chronic Effects on Humans:** Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

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

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

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:** Systemic effects: CNS disorders, cardiovascular failure, tachycardia, drop in blood pressure, coughing, dyspnoea, spasms, headache, dizziness, nausea, vomiting, collapse, unconsciousness and ultimately death. Several gram dose of sodium azide ingested produced collapse and death within 40 minutes in an adult.

Pathologic findings were limited to swelling of the brain, lungs and mild fatty degeneration of liver.

## 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Product of Biodegradation:** Not available.

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

**Special Remarks on the Products of Biodegradation:** Dissipation of azides in soil is accelerated by increased acidity and elevated temperatures. This reaction appears to occur rapidly in soils by oxidation or by reaction of hydrazoic acid with soil organic acids to form azides of these acids which then decompose by Curtius Rearrangement.

Sodium azide appears to be stable in water in the absence of light, but is susceptible to photo-decomposition by UV radiation.

Photolysis of sodium azide may result in metal nitrides initially, with the eventual formation of the free metal and nitrogen gas.

## 13: Disposal Considerations

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

#### 14: Transport Information

**DOT Classification:** Class:6.1.

**Identification:** UN#:2811

Packing group:III.

**Special Provisions for Transport:** Not available.

#### 15: Other Regulatory Information

**Federal and State Regulations:** Not available.

**Other Regulations:** EU ADDITIONAL CLASSIFICATION

R: 25

Toxic if swallowed.

R: 32

Contact with acids liberates very toxic gas.

S: 28

After contact with skin, wash immediately with plenty of soap and water.

**Other Classifications:**

**WHMIS(Canada):** Not available.

**DSCL(EEC):** Not available.

**HMIS(U.S.A):**

**Health Hazard:** 0

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:**

**National Fire Protection Association (U.S.A):**

**Health:** 0

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:** Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety goggles.

#### 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

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### **Disclaimer**

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