

# Safety Data Sheet (SDS)

**Note:** For demonstration only. Please send an inquiry to obtain the official version of the SDS file.

## Section 1: Identification

### 1.1 Product Identification

**Product Name:** Guar Gum, 2-Hydroxypropyl Ether

**Product Number:** Sigma-1492025206

**Brand:** Sigma

**CAS Number:** 39421-75-5

**EC Number:** Not specified

**Molecular Formula:** C<sub>21</sub>H<sub>38</sub>O<sub>12</sub>

**Molecular Weight:** 446.52 g/mol

**Website:** [Sigma Chemical](#)

### 1.2 Supplier Details

**Company Name:** Sigma Chemical

**Address:** Room 2-1-2301, Jiahe Xinxing, No.130, Shandong Road, Shibei

District, Qingdao City, Shandong Province, China

**Phone Number:** +8618661891880

**Email:** [chemweb3@foxmail.com](mailto:chemweb3@foxmail.com)

**Business Hours:** Monday to Friday: 9:00AM - 6:00PM, Saturday: 9:00AM - 1:00PM, Sunday: Closed

### 1.3 Emergency Contact Number

**Emergency Contact:** +8618661891880

### 1.4 Recommended Use and Restrictions

**Recommended Use:** For research and development purposes only. Not for use as a drug, household product, or in any other unapproved applications.

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## Section 2: Hazard Identification

### 2.1 GHS Classification

**Acute Toxicity:**

Oral: Category 4, H302 (Harmful if swallowed)

Inhalation: Category 4, H332 (Harmful if inhaled)

**Specific Target Organ Toxicity (Repeated Exposure):**

Inhalation: Category 2, H373 (May cause damage to organs through prolonged or repeated exposure)

### 2.2 GHS Label Elements

**Pictogram:** Warning

**Signal Word:** Warning

**Hazard Statements:**

H302: Harmful if swallowed

H332: Harmful if inhaled

H373: May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements:**

Prevention:

P260: Do not breathe dust/fume/gas/mist/vapours/spray

P264: Wash thoroughly after handling

P270: Do not eat, drink, or smoke when using this product

Response:

P301+P312+P330: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

P304+P312: IF INHALED: Call a POISON CENTER/doctor if you feel unwell.

Disposal:

P501: Dispose of contents/container in accordance with  
local/regional/national/international regulations

**2.3 Physical and Chemical Hazards**

**Physical and Chemical Hazards:** Non-flammable. Ignition sources may release hazardous combustion products.

## 2.4 Health Hazards

### Health Hazards:

H302: Harmful if swallowed

H332: Harmful if inhaled

H373: May cause damage to organs through prolonged or repeated exposure

## 2.5 Environmental Hazards

**Environmental Hazards:** No significant environmental hazards identified based on current information.

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# Section 3: Composition/Information on Ingredients

## 3.1 Substance

**Synonyms:** Guar gum, 2-hydroxypropyl ether, Hydroxypropyl guar, Hydroxypropyl guar gum, Guaraplose

**Molecular Formula:** C<sub>21</sub>H<sub>38</sub>O<sub>12</sub>

**Molecular Weight:** 446.52 g/mol

**CAS Number:** 39421-75-5

**EC Number:** Not specified

## **Hazardous Components:**

**Component:** Guar gum, 2-hydroxypropyl ether

## **Classification:**

Acute Toxicity: Category 4 (Oral), H302

Acute Toxicity: Category 4 (Inhalation), H332

Specific Target Organ Toxicity (Repeated Exposure): Category 2, H373

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## **Section 4: First Aid Measures**

### **4.1 First Aid Measures**

**Inhalation:** Remove victim to fresh air. If feeling unwell, call a POISON CENTER/doctor.

**Skin Contact:** Immediately wash with plenty of water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Get medical attention if irritation persists.

**Eye Contact:** Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if eye irritation persists.

**Ingestion:** Do NOT induce vomiting. Rinse mouth with water. Call a POISON CENTER/doctor if feeling unwell.

## 4.2 Most Important Symptoms and Effects

**Symptoms:** Difficulty in breathing. Symptoms of overexposure may include headache, dizziness, tiredness, nausea, and vomiting.

## 4.3 Immediate Medical Attention and Special Treatment

**Medical Treatment:** Treat symptoms as they appear.

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# Section 5: Firefighting Measures

## 5.1 Extinguishing Media

**Suitable Extinguishing Agents:** Use fire extinguishing methods suitable for the surrounding environment. Solid water stream may be used.

## 5.2 Specific Hazards Arising from the Chemical

**Hazardous Combustion Products:** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

## 5.3 Firefighting Precautions

**Protective Equipment:** Wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective equipment.

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## Section 6: Accidental Release Measures

### 6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

**Personal Precautions:** Ensure adequate ventilation. Use personal protective equipment as required. Ground all equipment used when handling the product. Avoid contact with skin, eyes, or clothing. Remove all sources of ignition. Take precautionary measures against static discharge.

**Environmental Precautions:** Prevent seepage into sewage systems, workpits, and surface or ground water.

### 6.2 Methods and Materials for Containment and Clean-Up

**Containment:** For small leaks, absorb with inert absorbent material (e.g., sand, diatomite, acid binders, universal binders) or collect in a tightly sealable container. For large leaks, enclose with banks to prevent outflow and lead the leakage to a safe place for containment.

**Clean-Up:** Dispose of collected material in accordance with local/regional/national/international regulations.

### 6.3 Reference to Other Sections

**Other Sections:** See Section 8 for personal protection equipment and Section 13 for disposal.

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## Section 7: Handling and Storage

### 7.1 Handling Precautions

**Handling:** Ensure adequate ventilation. Wear personal protective equipment/face protection. Use spark-proof tools and explosion-proof equipment. Keep away from open flames, hot surfaces, and sources of ignition. Avoid contact with skin, eyes, or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid ingestion and inhalation. Take precautionary measures against static discharge.

### 7.2 Storage Conditions

**Storage:** Store in a dry, cool, and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks, and flame. Store in a flammable area. Keep container tightly closed in a dry and well-ventilated place. Incompatible materials include strong oxidizing agents, strong acids, strong bases, strong reducing agents, and water.

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## Section 8: Exposure Controls/Personal Protection

### 8.1 Control Parameters

**Exposure Limits:** No occupational exposure limits established by regional regulatory authorities.

### 8.2 Exposure Controls



**Engineering Measures:** Ensure adequate ventilation, especially in confined spaces.

### 8.3 Personal Protective Equipment

**Respiratory Protection:** Use self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) if exposure limits are exceeded.

**Hand Protection:** Wear nitrile gloves.

**Eye Protection:** Wear safety goggles or a face shield.

**Skin Protection:** Wear chemical-resistant clothing, such as lab coats or coveralls.

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## Section 9: Physical and Chemical Properties

**Appearance:** White to yellowish fine powder

**Odor:** Odorless

**Melting Point:** Not applicable

**Boiling Point:** Not applicable

**Solubility in Water:** Highly soluble in cold water, forming pseudoplastic (shear-thinning) gels

**Solubility in Organic Solvents:** Soluble in ethanol and other common organic solvents

**pH:** Slightly basic when dissolved in water

**Stability:** Stable under normal conditions, but may decompose upon heating to release CO<sub>2</sub> and revert to cyclohexylamine

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## Section 10: Stability and Reactivity

### 10.1 Reactivity

**Reactivity:** Stable under normal conditions. Avoid contact with strong oxidizing agents, strong acids, strong bases, and strong reducing agents.

### 10.2 Hazardous Decomposition Products

**Decomposition Products:** Carbon dioxide (CO<sub>2</sub>), cyclohexylamine

### 10.3 Conditions to Avoid

**Conditions to Avoid:** High temperatures, exposure to moisture

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## Section 11: Toxicological Information

### 11.1 Acute Toxicity

**Oral:** Category 4, H302 (Harmful if swallowed)

**Inhalation:** Category 4, H332 (Harmful if inhaled)

## **11.2 Specific Target Organ Toxicity (Repeated Exposure)**

**Inhalation:** Category 2, H373 (May cause damage to organs through prolonged or repeated exposure)

## **11.3 Other Toxicological Information**

**Irritation:** May cause irritation to skin, eyes, and respiratory tract.

**Sensitization:** Not known to be a sensitizing agent.

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# **Section 12: Ecological Information**

## **12.1 Ecotoxicity**

**Ecotoxicity:** No significant ecotoxicological hazards identified based on current information.

## **12.2 Persistence and Degradability**

**Persistence:** Not known to be persistent in the environment.

**Degradability:** Likely to degrade under normal environmental conditions.

## **12.3 Bioaccumulation Potential**

**Bioaccumulation:** Not known to bioaccumulate in organisms.

## **12.4 Mobility in Soil**

**Mobility:** Not known to have significant mobility in soil.

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## Section 13: Disposal Considerations

### 13.1 Disposal Methods

**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulations.

### 13.2 Contaminated Packaging

**Packaging:** Dispose of contaminated packaging in accordance with local/regional/national/international regulations.

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## Section 14: Transport Information

### 14.1 UN Number

**UN Number:** Not applicable

### 14.2 Transport Hazard Class

**Hazard Class:** Not classified for transport

### 14.3 Packing Group

**Packing Group:** Not applicable

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## Section 15: Regulatory Information

### 15.1 Regulatory Information

**Regulatory Information:** Complies with relevant national and international regulations for chemical substances.