



XI'AN FUNCTION MATERIAL GROUP CO., LTD  
Safety Data Sheet  
Magnesium Nitride

---

### 1. Product and Company Identification

---

Trade Name: Magnesium nitride  
Chemical Formula:  $Mg_3N_2$   
Recommended Use: Scientific research and development

Manufacturer/Supplier: XI'AN FUNCTION MATERIAL GROUP CO., LTD  
Street: No. 69, Gazelle Valley, High-Tech Zone  
City: XI'AN  
State: Shannxi  
Zip Code: 710077  
Country: China  
Tel #: +86-29-88993870/+86-13519132051

---

### 2. Hazards Identification

---

Signal Word:

Danger



Hazard Statements:

H315 Causes skin irritation  
H319 Causes serious eye irritation  
H228: Flammable solid  
H335: May cause respiratory irritation

Precautionary Statements:

P261 Avoid breathing dust/fume/vapor.  
P264: Wash face hands and any exposed skin thoroughly after handling.  
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.  
P241: Use explosion-proof electrical/ventilating/lighting/equipment  
P271: Use only outdoors or in a well-ventilated area.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P350: IF ON SKIN: Gently wash with plenty of soap and water.  
P304+P312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.  
P332+P313: If skin irritation occurs: Get medical advice/attention.  
P362: Take off contaminated clothing and wash before reuse.  
P370+P378: In case of fire: Use  $CO_2$  or dry chemical or foam for extinction.  
P403+P233: Store in a well ventilated place. Keep container tightly closed.  
P405: Store locked up.  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

HMIS Health Ratings (0-4):	
Health:	2
Flammability:	2
Physical:	2

---

### 3. Composition

---

Chemical Family:	Ceramic
Additional Names:	Trimagnesium dinitride

Magnesium nitride ( $Mg_3N_2$ ):	
Percentage:	100 wt%
CAS #:	12057-71-5
EC #:	235-022-1

---

### 4. First Aid Procedures

---

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None

Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult. Seek immediate medical attention.
-------------	--

Ingestion:	Clean mouth immediately with plenty of water. Seek immediate medical attention.
------------	---

Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention.
-------	--

Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.
-------	---

---

### 5. Firefighting Measures

---

Flammability:	Flammable
---------------	-----------

Extinguishing Media:	Do not use water for metal fires – use $CO_2$ , sand, extinguishing powder.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

---

### 6. Accidental Release Measures

---

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
----------------------------------	--

Environmental Precautions:	Isolate runoff to prevent environmental pollution.
----------------------------	--

---

## 7. Handling and Storage

---

Handling Conditions:	Handle under dry protective gas. Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store under dry protective gas. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

---

## 8. Exposure Controls and Personal Protection

---

Permissible Exposure Limits:	N/A
Threshold Limit Value:	N/A
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

---

## 9. Physical and Chemical Characteristics

---

Color	Beige
Form:	Powder, Pieces, Sputtering target
Odor:	N/A
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	800 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	2.712 g/cc
Molecular weight:	100.93 g/mol

---

## 10. Reactivity

---

Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents
Incompatible Conditions:	Air, Water/moisture
Hazardous Decomposition Products:	Metal oxide fume, Nitrogen oxides

---

## 11. Toxicological Information

---

### Potential Health Effects:

Eyes:	Causes serious eye damage
Skin:	Causes skin irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	Inhalation of magnesium compounds may cause metal fume fever. Metallic magnesium which perforates the skin may cause local lesions. Some magnesium salts have produced muscle weakness, cardiac arrhythmias, respiratory effects and changes in blood chemistry following ingestion.

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: N/A

---

## 12. Ecological Information

---

Aquatic Toxicity:	Low
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	N/A

---

## 13. Disposal Considerations

---

Dispose of in accordance with local, state, national, and international regulations.

---

## 14. Transportation Data

---

Hazardous: Hazardous for transportation.



Hazard Class: 4.1 Flammable solids, self-reactive substances and solid desensitized explosives

Packing Group: II

UN Number: UN3178

Proper Shipping Name: Flammable solid, inorganic, n.o.s. (Magnesium nitride)

---

## 15. Regulatory Information

---

Sec 302 Extremely Hazardous: No

Sec 304 Reportable Quantities: N/A

Sec 313 Toxic Chemicals: No

---

## 16. Other Information

---

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

Document Last Revised:

11/25/2019

UNCMATEL