

MATERIAL SAFETY DATA SHEET

Magnesium Metal Based DS Reagent

1. **General Information :**

Company Name : M/s Pentaphos Industries Private Limited
Address : 830/4, GIDC Estate, Jhagadia, Dist – Bharuch, 393110

2. **Composition :**

Chemical Characterization : Magnesium Metal Granule 97% with passivation ingredients
Hazardous Components : None

CAS number	Designation	Content Unit	Key	R-sets
7439-95-4	Magnesium	max. 99.95 %	F	15

3. **Potential Hazards :**

Hydrogen formation under influence of moisture, acids and lyes.
Magnesium granule > 149 µm is ignitable.

4. **First Aid Measures :**

General Instructions :
Remove soiled clothing and wash prior to reusing.
Consult a doctor in case of indisposition.

Upon Inhaling :

Go out into the fresh air. consult a doctor.

Upon Coming Into Contact With The Skin :

Rinse immediately with plenty of water. If discomfort continues, consult a doctor.

Upon Coming Into Contact With The Eyes :

Rinse carefully with plenty of water, including under the eyelids. Visit a doctor immediately.
Upon Swallowing: Drink plenty of water. Consult a doctor immediately. The doctor will decide whether to induce vomiting.
Instructions For Attending Physician :
Restorative poisoning unlikely. If magnesium fragments have penetrated the skin, surgical removal will be necessary to prevent necrosis.

5. **Fire-Fighting Measures :**

Suitable Extinguishing Substances : Dry sand, gray-iron chips, special extinguishing Substances in inflammable class D, Argon
Unsuitable Extinguishing Substances For Safety Reasons : foam , water, extinguishing substances In inflammable class A, B, C, Carbon dioxide, Nitrogen.

Special Protective Fire-Fighting Equipment : Protective clothing, protective gloves, protective glasses. In case of hazardous smoke, wear gas mask.

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6. Measures for Accidental Release :

Precautions For Person :

Provide adequate ventilation. Avoid dust formation. Wear protective clothing.

Environmental Protection Measures : Prevent from reaching the surface water or sewage system.

Procedure For Cleaning/Absorption :

Absorb mechanically and dispose in suitable containers. Protect from humidity and water.

Keep away from sources of ignition. Do not smoke. If material is wet, place dust and chips in container which allows hydrogen to escape. Do not use sparking castings.

7. Handling and Storage :

HANDLING : Insure adequate ventilation in places where dust formation is possible. Observe general precautions for handling chemicals.

INSTRUCTIONS FOR FIRE AND EXPLOSION PROTECTION :

Protect from humidity and water. Avoid dust formation. Keep away from sources of ignition. Do not smoke.

STORAGE : Protect from humidity and store and transport in non-combustible, closed containers. Do not store together with inflammable substances.

Suitable material for container : Steel

8. Other Information, Handling and Storage :

Constituents With Maximum Exposure Limit : CAS NO. Designation Of Substance Type Value Unit 7439-95-4 Mg MAC 6.0 mg*m-3

General Safety Precautions :

Do not eat, drink or smoke when using. Shower after finishing work.

Respirator :

In case of dust formation wear gas mask.

Hand Protection :

Wear impermeable gloves.

Eye Protection :

Wear protective glasses with side shield. Keep eye-wash bottle with clean water nearby.

Body Protection :

Wear long-sleeved jacket. Wash soiled clothing immediately.

9. Physical and Chemical Properties :

Form : Granule COLOR : Grey odour : N/A Melting point : Approx. 650°C

Flammability : Reacts with water by forming Hydrogen gas.

Boiling Point : 1100°C

Heat of Vaporization : 128 kJ·mol⁻¹

Density : Approx. 1783 kg*m⁻³

Heat of Fusion : 8.48 kJ·mol⁻¹

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10. **Stability and Reactivity :**

Substances To be Avoided : Humidity, water, acids, bases and oxidation agents.
Hazardous Decomposition Products : Hydrogen

11. **Toxicology :**

Dust slightly irritating to eyes and respiratory tract.

12. **Ecology :**

After reaction, toxic effect on fish. Lethal effect to fish between 100 and 400 mg/l, alkalinity harms water organisms.

13. **Disposal :**

The wastes should be collected in small containers and placed apart at safe gap. Safest method for disposal of magnesium waste is probably wetting & burying.

14. **Additional Information :**

Chemical Name : Magnesium, passivation ingredients
Chemical Identity : Mg, Others
Product Use : Hot Metal Desulphurisation

NOTE

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