

Material Safety Data Sheet

Section 1 - Chemical Product And Company Identification

Sample Name: **HYG04C MOLECULAR SIEVE TYPE 4A**

Company: Y. S. Engineering & Design Co., Ltd.

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Section 2 - Composition Information on Ingredients

Chemical Name	Percent (by weight)	CAS No.
Silicon Oxide (Synthetic)	< 60%	7631-86-9
Sodium Oxide	< 40%	1313-59-3
Aluminum Oxide	< 40%	1344-28-1
Magnesium Oxide	< 5%	1309-48-4

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Non-flammable. Safe under normal use. If contacted with grinding dust, may cause eyes and skin irritation. If inhaled grinding dust, may cause upper respiratory system irritation.

Target organs: Eye, skin and respiratory system.

Hazards sorts: Not available.

Potential Health Effects:

- Eye: If contacted with grinding dust, may cause eyes irritation.
- Skin: If contacted with grinding dust, may dry skin.
- Ingestion: Product is not intended to be ingested or eaten under normal

conditions for use. If ingested, it may cause temporary irritation to the gastrointestinal (GI) tract, especially the stomach.

- Inhalation: May cause respiratory tract irritation if inhaled grinding dust. Repeated or prolonged exposure may cause lung injury.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes.

Skin: Wash exposed skin with soap and water. If irritation develops, seek medical attention.

Ingestion: If the material is swallowed, get immediate medical attention or advice. Never give anything by mouth to an unconscious person. If conscious and alert, give several glasses of water or milk.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if necessary.

Section 5 – Fire Fighting Measures

General Information: The material is not flammable. As in any fire, wear a self-contained breathing apparatus in pressure-demand and full protective gear.

Extinguishing Media: Use agent most appropriate to extinguish surrounding fire. Use CO₂, sand, extinguishing powder.

Section 6 – Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Ventilate area of leak or spill. Collect material then place in suitable container. Recycle if possible. Avoid generating dust.

Section 7 – Handling and Storage

Storage: Keep in a tightly closed container. Store in a cool, dry, ventilated area.

Handling: Protect against physical damage. Avoid contacting with eyes. Wash hands thoroughly after handling.

Section 8 – Exposure Controls, Personal Protection

Exposure Limit:

CAS# 1344-28-1

- PEL-TWA 15mg/m³ (OSHA, total) 5mg/m³ (OSHA, resp)

CAS# 7631-86-9

- PEL-TWA 15mg/m³ (OSHA, total) 5mg/m³ (OSHA, resp) 5mg/m³ (OSHA, fume)
- TLV-TWA 6mg/m³ (ACGIH)

Monitoring Methods: No information found.

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Equipped with safety shower and eyes bath.

Personal Protective Equipment:

- Eyes: Wear appropriate protective eyeglasses or chemical safety goggles.
- Skin: Wear appropriate protective gloves to prevent skin exposure.
- Clothing: Working clothing is suggested.
- Respirators: It is suggested to use an appropriate respirator if dust in the air or if irritation or other symptoms are experienced.

Section 9 – Physical and Chemical Properties

Form:	Solid
Color:	Tan
Odor:	None
pH:	8~11 (AS)
Boiling Point/range:	N/A
Melting Point/range:	N/A
Decomposition Temperature:	N/A
Density:	0.5~0.9 g/mL
Ignition Temperature:	N/A
Solubility:	Soluble in acid or soda, insoluble in water

Section 10 – Stability and Reactivity

Chemical Stability: Stable under normal condition.

Conditions to Avoid: The addition of the moisture (water) without flooding can cause rise in temperature from heat of adsorption, and contact with skin might result in burns.

Incompatibilities materials: Sudden contact with high concentrations of chemicals

having high heats of adsorption such as olefins, HCl, etc.
Hazardous Decomposition Products: Na/A
Hazardous polymerization: Will not occur.

Section 11 – Toxicological Information

Toxicological Information:

CAS# 1344-28-1

- LD50: >5000 mg/Kg (oral, rat)

CAS# 7631-86-9

- LD50: >5510 mg/Kg (oral, rat)
- LD50: >5000 mg/Kg (dermal, rabbit)

Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Sensitization Rate: Not available.

Teratogenicity: Not available.

Section 12 – Ecological Information

Ecological Toxicity:	Not available.
Ecological Degradation:	Not available.
Abiology Degradation:	Not available.
Aquatic Toxicity:	Not available.

Section 13 – Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Section 14 – Transport Information

Not regulated as a hazardous material for transportation. (D.O.T; TDG; IMDG; IATA; DGR)

UN:	N/A
Classification:	N/A
Packaging Sign:	N/A
Shipping Name:	N/A
Packaging Category:	N/A
Packaging Method:	N/A

Shipping Notice: N/A

Section 15 – Regulatory Information

Regulatory Information: Reference to the local, national and EU / international regulations.

TSCA: All compounds are listed.

DSL: All compounds are listed.

OSHA: No compounds are listed.

California Prop 65: No compounds are listed.

Hazard Symbols: N/A

Safety Description:

S22: Do not breathe dust

S25: Avoid contact with eyes

Risk Codes: N/A

Section 16 – Additional Information

Issue Time: 2015-2-1

Issue Department: Technical Department

Date review unit:

Modification record:

Other Information:

Regional representation: This information is given on the authorized Material Safety Data Sheet for your country.