

Material Safety Data Sheet



MSDS No. : 3000E
 Revision : 5
 Prepared Date : January 18, 2013

1. Product and company identification

Product name **Packing material for HPLC**

YMC * GEL	YMC-Pack series YMC-CS series	ODS-A, ODS-AM, ODS-AQ, ODS-AL, C₈, C₄, TMS, Ph, CN, YMCbasic, FA, CA, CN, Diol-NP, Polyamine , NH₂, PA-G, PROTEIN-RP, Diol, K, PVA-SIL
	Pro series	Pro C18, Hydrosphere C18, Pro C18 RS, Pro C8, Pro C4
	YMC-UltraHT series	UltraHT Pro C18, UltraHT Hydrosphere C18
	J'sphere series	J'sphere ODS-H80, J'sphere ODS-M80, J'sphere ODS-L80
	YMC CHIRAL CD BR series	YMC CHIRAL α-CD BR, YMC CHIRAL β-CD BR, YMC CHIRAL γ-CD BR
	HG series	ODS-A-HG, ODS-AQ-HG, C8-HG, C4-HG, TMS-HG, Ph-HG, CN-HG, Diol-HG, NH₂-HG
	Others	YMC-Exphere C18, YMC Carotenoid, YMC CHIRAL NEA, YMC CHIRAL PREP CD ST, YMC CHIRAL PREP CD PM

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Material Uses **Research & Development, Industry use**

2. Hazards identification

GHS Classification **N/E**
 Hazard symbol **N/E**
 Emergency overview **Low hazard and toxic under usual usage. If contact with skin or eyes, physical stimulation may occur.**
 Note; This product contains synthetic amorphous silica, not to be confused with crystalline silica. Amorphous silica may cause irritation to skin, eye and respiratory tract. These information are based on non-synthesis silica gel. Synthesis silica gel has not been investigated for health effects.

Remarks
 <Personal precaution>
 Avoid exposure - obtain and understand special instructions before use. Keep away from heat, sparks and open flame. Wear appropriate protective equipment such as gloves, safety glasses, lab coat. Avoid prolonged contact with skin and breathing of vapor or spray mist. Do not eat, drink or smoke before handling the product. Wash hands thoroughly after handling the product.
 <First-aid>
 EYE CONTACT: Immediately flush eyes with plenty of water for at least 10 minutes, lifting the lids occasionally. Check for and remove contact lenses, if possible./SKIN CONTACT: Remove contaminated clothing and shoes. Wash with plenty of water.
 /EXPOSURE OR POSSIBLE EXPOSURE: Seek medical attention.
 <Storage>
 Store in a cool dry place. Keep tightly closed. Protect from sunlight, high temperature and moisture.
 <Disposal>
 Dispose of the product and containers via a licensed waste disposal contractor.

Other toxicity **N/A**

3. Composition/Information on ingredients

Chemical Name **Silica gel with chemically bonded phase ligands**

Ingredient	Chemical Name	Chemical Formula	% by weight	CAS No
	Silica gel with chemically bonded phase ligands (Organic constituent: up to ca. 30%)	SiO ₂ *	100*	7631-86-9*

*As a silica gel

4. First-aid measures	
INHALATION	Remove victim to fresh air and lay in position to secure breathing. Seek medical attention immediately.
EYE CONTACT	Immediately flush eyes with plenty of water for at least 10 minutes, lifting the lids occasionally. Check for and remove contact lenses, if possible. Seek medical attention immediately.
SKIN CONTACT	Flush thoroughly with a large amount of water. Immediately remove contaminated clothing. Seek medical attention if needed.
INGESTION	Wash mouth with plenty of water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical attention immediately.
First Aid Instructions	Wear appropriate protective equipment such as gloves, safety glasses, etc. when administering first aid.
Notes to Physician	None
5. Fire-fighting measures	
Extinguishing media	This material is non-flammable. If surrounding is firing, follow appropriate fire fighting procedures.
Extinguishing media to be avoided	None
Unusual hazards	None
Special fire-fighting procedures	Keep personnel removed and upwind of any fire and isolate the area. Cool surrounded area with water spray to prevent increasing temperature of equipment and containers. Take appropriate measures to avoid discharging the effluent into the environment.
Protection of fire-fighters	Use appropriate protection wear and glasses while fire fighting.
6. Accidental release measures	
Personal precaution / Personal protective equipment and Emergency measures.	Handling equipment should be designed to keep airborne dust to minimum. Shovel up or sweep with a lot of water. It should be cleaned from the windward, and should be evacuated from the leeward. Under dusty conditions wear dust mask to avoid inhalation.
Environmental precautions	Avoid dispersal of spilled material and runoff into the soil, waterways and drains.
Method of containment and cleanup	Stop discharge. Transport containers from the area after confirming their safe handling. Dilute spill with water and wipe, or absorb with incombustible material such as sand or diatom earth, and collect in suitable containers (e.g. stainless steel or plastic). Use appropriate procedures to dispose the spilled material. See section 13.
7. Handling and storage	
Handling	<p><General handling precautions> Always wear proper protective equipment such as protective gloves and goggles/mask when handling. Avoid eye, skin, mucous membrane and clothing contact. Avoid breathing vapor or mist. Do not eat, drink or smoke in areas handling the product including storage, work areas. Keep away from all sources of ignition such as sparks, flame and heat. Wash thoroughly after handling.</p> <p><Ventilation> Use only in a well-ventilated area equipped with local exhaust ventilation.</p> <p><Other precautions> Users of this product must be properly trained for safety measures.</p>
Storage	<p><Storage requirement> Store in a cool dry place. Keep tightly closed. Protect from sunlight, high temperature and moisture.</p> <p><Container> Keep tightly closed to protect quality with shipping bottle, polyethylene or glass bottles.</p>

8. Exposure control /Personal protection

Engineering controls	Use process enclosures or well-ventilated facilities with adequate general or local exhaust ventilation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use antistatic device and explosion proof equipment to prevent fire or explosion.								
Concentration limits	Not determined								
Exposure limits	<table border="0"> <tr> <td>OSHA</td> <td>PEL-TWA</td> <td>6mg/m³ (as a particle. No regulation except for particles.)</td> <td></td> </tr> <tr> <td>ACGIH</td> <td>TLV-TWA</td> <td>10mg/m³ (as a particle.)</td> <td>6mg/m³ (as silica gel.)</td> </tr> </table>	OSHA	PEL-TWA	6mg/m ³ (as a particle. No regulation except for particles.)		ACGIH	TLV-TWA	10mg/m ³ (as a particle.)	6mg/m ³ (as silica gel.)
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ACGIH	TLV-TWA	10mg/m ³ (as a particle.)	6mg/m ³ (as silica gel.)						
Personal protective equipment	<p><Respiratory protection> Dust mask. Respirator selection must be based on known or anticipated exposure levels.</p> <p><Protective Gloves> Vinyl gloves</p> <p><Eye protection> Goggle</p> <p><Skin protection> Vinyl protective clothing, lab coat or antistatic protective clothing.</p>								

9. Physical and chemical properties

Physical state	powder
Color	White or off-white
Odor(threshold)	Odorless
pH	N/A
Melting Point	N/A
Boiling Point	N/A
Flash Point	N/A
LEL/UEL	(Upper)N/A (Lower)N/A
Vapor Pressure	N/A
Vapor Density	N/A
Specific Gravity (relative density)	Approx. 1.4-1.7mg/mL
Solubility	Negligible (< 0.1%)
Partition Coefficient octanol/water	N/A
Autoignition temperature	N/A
Decomposition Temperature	N/A
Evaporation Rate	N/A
Flammability (Solid, gas)	N/A
Viscosity	N/A
Other data	None

10. Stability and reactivity

Stability	Stable at normal handling and storage conditions.
Hazardous polymerization	Will not occur to produce hazardous substance at normal handling and storage conditions.
Conditions to Avoid	Sunlight, high temperature, humidity, shock, friction.
Incompatibilities	None
Hazardous Decomposition Products	Will not occur at normal handling and storage conditions.

11. Toxicological information

Acute Toxicity Data	<p>Silica dust ("Registry of toxic effect of chemical substances").</p> <p>Oral mouse LD₅₀ 3000mg/kg</p> <p>In case of excess inhalation or handling long time may affect lungs due to accumulation. Recommend to wear appropriate dust mask while using material.</p>
Irritancy (corrosive) Data	Physical stimulation may occur.
Eye effects	No information available.
Respiratory/Skin effects	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive Effects	No information available.
Single exposure	No information available.
Repeated exposure	No information available.

12. Ecological information	
Ecotoxicity	No information available.
Environmental	No information available.
Physical	No information available.
Other information	The ecological effects of this product have not been evaluated. Avoid release to the environment.
13. Disposal considerations	
Waste disposal	Dispose in accordance with all applicable regulations. Dispose of its contents and waste via a licensed waste disposal contractor.
Contaminated containers and packaging	Dispose in accordance with all applicable regulations. Dispose after cleaning up the containers and packaging until no residual of contents can be observed. Use a licensed waste disposal contractor.
14. Transport information	
International transport regulations	<Maritime Transport> IMO : Not Regulated. <Air Transport> ICAO: Not Regulated. IATA: Not Regulated.
Special safety practice	Load the containers holding the product securely to prevent drop, fall or damage. Transport such containers carefully to prevent significant wear or agitation. See Section 7. Handling and storage for reference when loading/unloading and transporting the product.
15. Regulatory information	
U.S.	TSCA / Silicon dioxide listed. R&D Exemption: For laboratory use only. SARA Codes / None.
EU	None.
16. Other information	
NFPA Ratings	Health: 1 Flammability: 0 Reactivity: 0
Notice to reader Disclaimer	<p>The information above is believed to be accurate and represents the best information currently available to us. It is provided in good faith without warranty to assist in the proper handling and storage of this product. YMC Co., Ltd. makes no representations as to the accuracy or completeness of the information contained herein. Information is supplied on condition that persons receiving such information will make their own determination as to its suitability for their purposes prior to use. In no event will YMC Co., Ltd. be responsible for damages of any nature whatever resulting from the use of or reliance upon the information contained herein.</p> <p>N/E=Not established. Not included in classification or can not designate due to no data. N/A=Not applicable.</p>
Reference	OSHA (1994) ACGIH (1999)
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