

Safety Data Sheet

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DESICCANT™ SILICA GEL-QP™

1. Product and Company Information

Product name : Desiccant SILICAGEL-QP
Company : Ohe Chemicals Inc.
 2-2-15 Houshin, Higashiyodogawa, Osaka, Japan
 TEL +81-6-6329-6651
 FAX +81-6-6321-2252

Information on Ingredients

This desiccant bag is packing transparent and spherical silica gel by using plastic multilayer film composed polyester and polyethylene. Polyethylene layer is heat sealant material.

2. Hazardous Ingredients

Silica gel packed by plastic film do not touch it directly. In the case of contents spilling from the desiccant bag due to some causes, the fundamental information on content substances is applied.

GHS CLASSIFICATION: Not classified, Not applicable.

DANGEROUSNESS Eye contact: May cause irritation with dryness and pain.

HAZARDS No information is available. Neutral red may be harmful if swallowed. May cause deteriorate feeling, vomiting.

ENVIRONMENTAL No information is available.
INFLUENCE

3. Composition / Information on ingredients

	Adsorbent	Packing Material
MONOTYPE/MIXTURE	Mixture	Multilayer Film
CHEMICAL NAMES & SYNONYMS	Silica Gel SiO ₂ 99wt%over Neutral Red C ₁₅ H ₁₇ ClN ₄ 20ppm	Low Density Polyethylene Polyester
CHEMICAL FAMILY	Silica Gel	LLDPE/PET
FORMULA	SiO ₂ · nH ₂ O	(-CH ₂ -CH ₂ -) _n /(-CO-(C ₆ H ₄)-COO-(CH ₂) ₂ -O-) _n
CAS NO.	Silica Gel 7631-86-9 Neutral Red 553-24-2	Polyethylene 9002-88-4 Polyester 25038-59-9
REFERENCE NO. IN GAZETTED LIST IN JAPAN	Silica Gel 1-548 Neutral Red None	Polyethylene 6-1 Polyester 7-1022

4. First and Measure

The risks of direct contact with silica gel and ingestion of silica gel etc., are very low because of being packed into plastic bag. In the case of contents spilling from the desiccant bag due to some causes, followed measures are applied.

EYE CONTACT: Wash eyes immediately with large amounts of water or normal saline,

occasionally lifting upper and lower lids, until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.

SKIN CONTACT: Remove contaminated clothing and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains.

INHALATION: Remove from exposure area to fresh air immediately. Perform artificial respiration if necessary. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

INGESTION: If vomiting occurs, keep head lower than hips to help prevent aspiration. Treat symptomatically and supportively. Get medical attention.

5. Fire fighting measure

Case packaging : Corrugated cardboard case and polyethylene bag as protective moisture barrier liner are used for the packaging of desiccant. They are flammable. Steel jerrican packaging: Steel jerrican and polyethylene bag as protective moisture barrier liner are used for the packaging of desiccant. Can is not flammable but polyethylene bag are flammable.

Silica gel is nonflammable inorganic adsorbent. In a fire, the enclosed silica gel might spill from the package.

(Silicagel NFPA rating (LEVEL0~4) Health=1, Fire=0, Reactivity=0)

FIRE AND EXPLOSION HAZARD: Negligible fire hazard when exposed to heat or flame.

FIREFIGHTING: No acute hazard. Move container from fire area if possible. Avoid breathing vapors or dusts; keep upwind.

EXTINGUISHING MEDIA: Extinguish using agent suitable for type of surrounding fire. Prohibit to directly contacting with silica gel and water if possible.

6. Accidental release measure

Desiccant bag is perforated as like pinhole in order to secure suitable value of water vapor transmission rate. The dusting from desiccant bag is none or low level. In case of large spill, sweep up with a minimum of dusting and place into suitable clean, dry containers for reclamation or later disposal. Residue should be cleaned up using a high-efficiency particulate filter vacuum. Wear suitable protective equipment and work keeping upwind if possible as split and scatter occur contacting with water.

7. Handling and Storage

Observe all national, and local regulations when storing this substance.

HANDLING: Observe the notes are marked in outside of packaging, 「No Lay Down」 「Handle with care」 「avoid exposure to water」

STRAGE: Keep in a tightly closed container. Store in a cool, dry, ventilated area. Store away from humid materials. Always reseal container and protective moisture barrier liner after use.

8. Exposure controls/Personal protection

In the silica gel desiccant, even if a large amount of contents spill from desiccant bags, is not possible to work under the dust of silica gel. Therefore the exposure prevention measures do not need to be taken.

EXPOSURE LIMITS	Notice of Japan Association on Industrial Health(1992)	
	No.3 Class dust Inhalation	2 mg/m ³
	Total dust	8 mg/m ³

	ACGIH(1991)TLV-TWA 10 mg/m ³
VENTILATION	Provide local exhaust or process enclosure ventilation to meet published exposure limits.
RESPIRATION	The specific respirator selected must be based on contamination levels found in the work place.
EYE PROTECTION	Employee must wear splash-proof or dust-resistant safety goggles to prevent eye contact with this substance.
GLOVES	Employee must wear appropriate protective gloves to prevent contact with this substance.
CLOTHING	Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

9. Physical and Chemical properties

PROPERTIES	Silica Gel	Neutral Red	Polyethylene	Polyester
DESCRIPTION	Transparent Colorless, or White crystal No taste Odorless	Dark green Powder Odorless	Transparent Hard Polymer Odorless	Transparent Hard Polymer Odorless
BOILING POINT	2,230°C	--	--	--
VAPOR PRESSURE	None	--	None	None
VAPORIZATION	None	Decomposition (290°C)	None	None
MELTING POINT	1,710°C	None	85-110°C	255°C
TRUE DENSITY	2.1g/ml	None	0.92g/ml	1.4g/ml
BALK DENSITY	0.70-0.75(g/ml)	Decomposition	--	--
WATER SOLUBILITY	Insoluble	Slightly soluble	Insoluble	Insoluble
PH	4-8	---	--	--

10.Stability and Reactivity

REACTIVITY	: Stable under normal temperatures and pressures. Neutral red contain in indicator silica gel begin decomposition at over 140°C.
CONDITIONS TO AVOID	: None
INCOMPATIBILITIES	: None
FLASH POINT	: None EXPLOSION LIMIT: None
IGNITION POINT	: None
COMBUSTIBILITY	: None
OXIDIZING	: None
SELF REACTIVITY	: None
DUST EXPLOSIVE	: None
OTHERS	: Adsorption

11.Toxicology information

The problem is not caused if packed silica gel do not spill from desiccant bags.

TOXICITY DATA	: Silica Gel-----Oral – rat LD50>31600mg/kg In halation – rat LC50>2mg/L Skin - rabbit LD50>2000mg/kg
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	: Neutral Red-----Oral: No information is available Rat Vein LD50=112mg/kg
CARCINOGEN STATUS	: Silica Gel---No(OSHA=N,NTP=N,IARC=N, ACGIH=N, NIOSH=N)
SKIN CONTACT	: Neutral Red-----No information is available : Prolonged skin contact with dry particulate may cause drying of the skin. One fumed silica, particle size 0.5-10 μ m considered inert to mildly irritating when rabbit skin.
EYE CONTACT	: Dusts may cause irritation with redness and pain. One fumed silica, particle size 0.5-10 μ m considered inert to mildly irritating when rabbit skin.
INGESTION	: ACUTE EXPOSURE- The effects of ingestion are purely mechanical as the substance is inert chemically and biologically by this route.

12. Ecological information

ENVIRONMENTAL IMPACT RATING (0-4)	: No data available
ACUTE AQUATIC TOXICITY	: No data available
DEGRADABILITY	: No data available
LOG BIOCONCENTRATION FACTOR (BCF)	: No data available

13. Disposal information

Observe all national and local regulations when disposing of this substance.
This substance is disposed as nonflammable material. In case of large contents disposing, the manifest of industrial waste trader is required.

14. Transportation information

No classification currently assigned. Avoid to directly contacting with water.
Protect container from physical damage. Keep in tightly closed container.

15. Regulatory information

Food Sanitation Law in Japan: Silica Gel – Food additive for manufacturing substance (Insoluble inorganic material)= below 0.5% in food.
Federal regulation: code 21 parts 182.1711 (Multiple Purpose GRAS Food Substances).
The following laws are not applied.

1. PRTR (Pollutant Release and Transfer Register).
2. Labor Standards Law.
3. Industrial Safety & Health Law.
4. Poisonous and deleterious Substances Control Law.
5. Fire Service Law.
6. Enforcement regulations concerning prevention of Marine pollution and Maritime Disaster.
7. Water pollution control law.
8. Air pollution control law.

16. Others

The information contained herein is based upon data considered true and accurate, However, OhE Chemicals Inc. makes no warranties expressed or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof.

This Safety Data Sheet (SDS) complies with the United Nations Globally Harmonized System (GHS) of Classification and Labeling.

CONTACT: OhE Chemicals Inc. Planning & Development Division TEL 06-6329-6651, Fax 06-6321-2252