

***1. Identification of the substance/preparation and the company**

Orange Silica Gel

Application: Drying Agent

***2. Composition/Information on the components**

Chemical Description	Orange to Green Indicating Silica Gel
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Formula	$\text{SiO}_2 + \text{H}_2\text{O}$
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CAS (R Classification)	Phrase	112926-00-8 amorphous silica 98.2%, activated coloring agent 0.2% max
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***3. Health Hazard Identification**

Do not breathe dust or exceed the exposure limits

***4 First-aid measures**

Inhalation	Remove from source of exposure.
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Skin Contact	Wash spillage from skin with soap and water
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Eyes Contact	Wash immediately with copious amounts of water and obtain medical attention.
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Ingestion	Wash out mouth with water. If large amount swallowed or symptoms develop
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***5 Fire-fighting measures**

Extinguishing Media Not applicable. Inorganic compound. Not combustible.

***6. Accidental Release Measures**

Personnel Precautions

Do not inhale. Wear appropriate protective clothing. Dust mask essential if conditions are dusty. See section 8 for exposure limits.

Spillages

Contain spillage. Collect in suitable containers for recovery or disposal. During collection avoid creating dust.

***7. Handling and Storage**

Handling

Avoid creating any dust. Do not smoke. During handling electrostatic charges can accumulate (see BS 5958 for advice on the control of static.)

Storage

All containers must be closed air tight and kept in a dry place

***8. Exposure Controls/Personal Protection**

Occupational Exposure Standards:

Synthetic amorphous silica

Silica amorphous, total inhalable dust: UK EH40: OES 6mg/m³ 8h TWA.

Silica amorphous, respirable dust: UK EH40: OES 2.4mg/m³ 8h TWA.

Silica Gel: ACGIH: TLV 10mg/m³ 8h TWA.

Activation agent: ACGIH: 0.5mg/m³ 8h TWA.

Engineering Control Measures

Engineering methods to prevent or control exposure are preferred.

Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

Respiratory Protection

Avoid inhalation of dust. Wear suitable respiratory protective equipment if working in confined spaces with inadequate ventilation or whenever there is any risk of the exposure limits being exceeded

Hand Protection

Wear protective gloves.

Eyes Protection

Wear suitable eye protection.

Protection During Application

Handle in well ventilated conditions in accordance with good industrial hygiene and safety practices.

***9 Physical and chemical properties**

Aspect	Beads
Color	Dry: yellow/orange Saturated: Green
Odor	Odorless
PH	2-10 at 5% w/w in water
Melting Point (oC)	>1000
Boiling Point	Not Applicable
Flash Point	Not Applicable
Explosion Limits	Not Applicable
Bulk Density	720kg per cu meter (typical)
Solubility in Water	less 2% in weight
Thermal Decomposition	Stable except when saturated water released during regeneration

***10 Stability and reactivity**

Stability	Hygroscopic
Conditions to Avoid	High temperatures in excess of 155°C
Materials to Avoid	None known
Hazardous Decomposition	Hygroscopic material

***11 Toxicological information**

Toxicological Data:

Toxicity The lethal dose for humans for synthetic amorphous silica is estimated at over 15,000mg/kg.

Health Effects Inhalation

Synthetic amorphous silica gel has little adverse effect on lungs and does not produce significant disease or toxic effect when exposure is kept below the permitted limits. However existing medical conditions (eg asthma, bronchitis) may be aggravated by exposure to dust. Effects of dust may be greater, and occur at lower levels of exposure in smokers compared to non-smokers.

Eye Contact Dust may cause discomfort and mild irritation.

Skin Contact Dust may have a drying effect on the skin.

Carcinogenicity Amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3).

***12. Ecological Information**

Ecotoxicity Synthetic amorphous silica is virtually inert and has no known adverse effect on the environment.

***13. Disposal**

Product Disposal

Product can be reactivated in an oven for re-use.

This material is not classified as hazardous waste under EEC Directive 91/689/EEC.

Dispose of in accordance with all applicable local and national regulations.

This material is not classified as special waste under UK Special Waste Regulations 1996 and can be disposed of by landfill at an approved site.

***14. Transport Information**

UN Class Not classified as dangerous goods under the United Nations Transport Recommendations

***15. Information on Regulation**

EC Classification	This product is not classified as dangerous.
S phrases	Handle in accordance with good industrial hygiene and safety practices. Avoid inhalation of dust.
EINECS Listing	Preparation – all components listed
TSCA Listing	Mixture – all components listed
AICS Listing	Mixture – all components listed
DSL/NDSL (Canadian) Listing	Mixture – all components listed

MSDS According to EEC 91/155

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