

SUD-CHEMIE SILICA GEL CANISTERS

Chemwatch Independent Material Safety Data Sheet

Issue Date: 6-Nov-2009

NC317ECP

CHEMWATCH 22-4591

Version No:2.0

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

SUD-CHEMIE SILICA GEL CANISTERS

SYNONYMS

"Silica Gel Type: Non Indicating"

PRODUCT USE

Dessicant for moisture adsorption.

SUPPLIER

Company: Sud- Chemie Australia Pty Ltd

Address:

12 Peachtree Road

Penrith

NSW 2750

AUS

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Emergency Tel: +61 2 47 321 421 (9.00am to 5.00pm

Monday to Friday)

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Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

POISONS SCHEDULE

None

RISK

None under normal operating conditions.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
silica gel	7699-41-4	>90
water	7732-18-5	<6

Section 4 - FIRST AID MEASURES

SWALLOWED

- - Not considered a normal route of entry.
- Immediately give a glass of water.

- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

- If this product comes in contact with eyes:
 - Wash out immediately with water.
 - If irritation continues, seek medical attention.
 - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

- Brush off dust.

INHALED

- - If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

NOTES TO PHYSICIAN

- Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- - There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

FIRE FIGHTING

- - Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- - Non combustible.
- Not considered a significant fire risk, however containers may burn.

FIRE INCOMPATIBILITY

- None known.

HAZCHEM: None

PERSONAL PROTECTION

Glasses:
Gloves:
Respirator:
Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

Sweep up.

MAJOR SPILLS

- - Clean up all spills immediately.
- Secure load if safe to do so.
- Bundle/collect recoverable product.
- Collect remaining material in containers with covers for disposal.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- No special handling procedures required.

SUITABLE CONTAINER

- Plastic container.

STORAGE INCOMPATIBILITY

- No known incompatibility with normal range of industrial materials.
- Material is hygroscopic, i.e. absorbs moisture from the air. Keep containers well sealed in storage.

STORAGE REQUIREMENTS

- - Keep dry.
- Store under cover.
- Protect containers against physical damage.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA mg/m ³	Notes
Australia Exposure Standards	silica gel (Silica - Amorphous Silica gel (a))	10	(see Chapter 14)
Australia Exposure Standards	silica gel (Silica - Amorphous Precipitated silica (a))	10	(see Chapter 14)

The following materials had no OELs on our records

- water: CAS:7732-18-5

MATERIAL DATA

SUD-CHEMIE SILICA GEL CANISTERS:

- None assigned. Refer to individual constituents.

SILICA GEL:

- The concentration of dust, for application of respirable dust limits, is to be determined from the fraction that penetrates a separator whose size collection efficiency is described by a cumulative log-normal function with a median aerodynamic

diameter of 4.0 µm (+-) 0.3 µm and with a geometric standard deviation of 1.5 µm (+-) 0.1 µm, i.e. generally less than 5 µm.

For amorphous crystalline silica (precipitated silicic acid):

Amorphous crystalline silica shows little potential for producing adverse effects on the lung and exposure standards

should reflect a particulate of low intrinsic toxicity. Mixtures of amorphous silicas/ diatomaceous earth and crystalline silica

should be monitored as if they comprise only the crystalline forms.

The dusts from precipitated silica and silica gel produce little adverse effect on pulmonary functions and are not known

to produce significant disease or toxic effect

IARC has classified silica, amorphous as Group 3: NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

WATER:

- No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION

EYE

- No special equipment required due to the physical form of the product.

HANDS/FEET

- No special equipment required due to the physical form of the product.

OTHER

- No special equipment required due to the physical form of the product.
- Not applicable.

RESPIRATOR

- Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half-face Respirator	Full-Face Respirator
1000	10	-AUS P	-
1000	50	-	-AUS P
5000	50	Airline *	-
5000	100	-	-2 P
10000	100	-	-3 P
	100+		Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

- None under normal operating conditions.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

- Material is hygroscopic, absorbs moisture from surrounding air. White powder or granules or spherical beads with no odour. Insoluble in water. Supplied in small plastic canisters.

PHYSICAL PROPERTIES

Does not mix with water.

Molecular Weight: Not Applicable	Boiling Range (°C): Not Applicable	Melting Range (°C): Not Applicable
Specific Gravity (water=1): Not Applicable	Solubility in water (g/L): Immiscible	pH (as supplied): Not Applicable
pH (1% solution): 4-9 5% w/w in water	Vapour Pressure (kPa): Not Applicable	Volatile Component (%vol): Not Applicable
Evaporation Rate: Not Applicable	Relative Vapour Density (air=1): Not Applicable	Flash Point (°C): Not Applicable
Lower Explosive Limit (%): Not Applicable	Upper Explosive Limit (%): Not Applicable	Autoignition Temp (°C): Not Applicable
Decomposition Temp (°C): Not Available	State: Manufactured	Viscosity: Not Applicable

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Product is considered stable and hazardous polymerisation will not occur. Material is hygroscopic, absorbs moisture from surrounding air. For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

- Not normally a hazard due to physical form of product. Considered to be non toxic.

EYE

- Not normally a hazard due to physical form of product. Generated dust may be discomforting.

SKIN

- Not normally a hazard due to physical form of product. Generated dust may be discomforting.

INHALED

- Not normally a hazard due to physical form of product. Generated dust may be discomforting.

CHRONIC HEALTH EFFECTS

- Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray.

TOXICITY AND IRRITATION

- Not available. Refer to individual constituents.

SILICA GEL:

- unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY
Intravenous (Mouse) LD: 234 mg/kg

IRRITATION
Eye (Rabbit) : 8.3 mg/48hr

[RTECS]

WATER:

- No significant acute toxicological data identified in literature search.

CARCINOGEN

Silica, amorphous	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	3
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Section 12 - ECOLOGICAL INFORMATION

- DO NOT discharge into sewer or waterways.

SILICA GEL:

- For silica amorphous:

Amorphous silica is chemically and biologically inert. It is not biodegradable. Due to its insolubility in water there is a separation at every filtration and sedimentation process.]

Crystalline and/or amorphous silicas are ubiquitous on the earth in soils and sediments, and in living organisms

(e.g. diatoms), but only the dissolved form is bioavailable. On a global scale, the level of man-made synthetic amorphous silicas (SAS) represents up to 2.4% of the dissolved silica naturally present in the aquatic environment.

Ecotoxicity:

Based on available data, SAS is not toxic to environmental organisms (apart from physical desiccation in insects).

SAS presents a low risk for adverse effects to the environment.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
Sud-Chemie Silica Gel Canisters silica gel	HIGH	No data	LOW	HIGH

water LOW No data LOW HIGH

Section 13 - DISPOSAL CONSIDERATIONS

- - Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: None

REGULATIONS

Regulations for ingredients

silica gel (CAS: 7699-41-4,63231-67-4,112926-00-8) is found on the following regulatory lists;

"Australia - Western Australia Hazardous Substances Prohibited for Specified Uses or Methods of Handling", "Australia Inventory of Chemical Substances (AICS)"

water (CAS: 7732-18-5) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Sud-Chemie Silica Gel Canisters (CW: 22-4591)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
silica gel	7699-41-4, 63231-67-4, 112926-00-8

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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This is the end of the MSDS.