

SAFETY DATA SHEET



Polar Ion APP Kit - 500Mg - 30/Pk, Part Number 12102057

SECTION 1: Identification of the substance/mixture and of the company/undertaking

This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article.

1.1 Product identifier

Product name	:	Polar Ion APP Kit - 500Mg - 30/Pk, Part Number 12102057
CAS number	:	Silica gel 112926-00-8 Organosilane bonded silica gel - Organosilane bonded silica gel - Organosilane bonded silica gel - Organosilane bonded silica gel - Organosilane bonded silica gel - Organosilane bonded silica gel - Organosilane bonded silica gel -
Part no. (chemical kit)	:	12102057
Part no.	:	Silica gel 30511001 Organosilane bonded silica gel 32531010 Organosilane bonded silica gel 32531014 Organosilane bonded silica gel 32531015 Organosilane bonded silica gel 32531017 Organosilane bonded silica gel 32531018

1.2 Relevant identified uses of the substance or mixture and uses advised against

Material uses	:	Analytical chemistry. cartridge
		Silica gel 250 mg
		Organosilane bonded silica gel 250 mg
		Organosilane bonded silica gel 250 mg
		Organosilane bonded silica gel 250 mg
		Organosilane bonded silica gel 250 mg
		Organosilane bonded silica gel 250 mg

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

2.1 Classification of the substance or mixture

Product definition	:	Silica gel	Mono-constituent substance (encapsulated in article)
		Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)
		Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)
		Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)
		Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)
		Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word	:	Silica gel	No signal word.
		Organosilane bonded silica gel	No signal word.
		Organosilane bonded silica gel	No signal word.
		Organosilane bonded silica gel	No signal word.
		Organosilane bonded silica gel	No signal word.
		Organosilane bonded silica gel	No signal word.
		Organosilane bonded silica gel	No signal word.
Hazard statements	:	Silica gel	No known significant effects or critical hazards.
		Organosilane bonded silica gel	No known significant effects or critical hazards.
		Organosilane bonded silica gel	No known significant effects or critical hazards.
		Organosilane bonded silica gel	No known significant effects or critical hazards.
		Organosilane bonded silica gel	No known significant effects or critical hazards.
		Organosilane bonded silica gel	No known significant effects or critical hazards.
Precautionary statements	:	Silica gel	Not applicable.
Prevention	:	Organosilane bonded silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.

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SECTION 2: Hazards identification

Response	:	Silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Storage	:	Silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Disposal	:	Silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Supplemental label elements	:	Silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel Organosilane bonded silica gel	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

Special packaging requirements

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SECTION 2: Hazards identification

Tactile warning of danger	:	Silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.
		Organosilane bonded silica gel	Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

	PBT	P	B	T	vPvB	vP	vB
Silica gel Not applicable (Inorganic)		N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A
Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Other hazards which do not result in classification	:	Silica gel	None known.
		Organosilane bonded silica gel	May form combustible dust concentrations in air.
		Organosilane bonded silica gel	May form combustible dust concentrations in air.
		Organosilane bonded silica gel	May form combustible dust concentrations in air.
		Organosilane bonded silica gel	May form combustible dust concentrations in air.
		Organosilane bonded silica gel	May form combustible dust concentrations in air.
		Organosilane bonded silica gel	May form combustible dust concentrations in air.

SECTION 3: Composition/information on ingredients

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

3.1 Substances	: Silica gel	Mono-constituent substance (encapsulated in article)
	Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)
	Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)
	Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)
	Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)
	Organosilane bonded silica gel	Mono-constituent substance (encapsulated in article)

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Silica gel Silica Gel	CAS: 112926-00-8	100	Not classified.	[A]
Organosilane bonded silica gel Organosilane bonded silica gel	-	100	Not classified.	[A]
Organosilane bonded silica gel Organosilane bonded silica gel	-	100	Not classified.	[A]
Organosilane bonded silica gel Organosilane bonded silica gel	-	100	Not classified.	[A]
Organosilane bonded silica gel Organosilane bonded silica gel	-	100	Not classified.	[A]
Organosilane bonded silica gel Organosilane bonded silica gel	-	100	Not classified.	[A]

Note: The hazard information listed is based on unbonded silica gel CAS Number 112926-00-8. To the best of our knowledge, the acute and chronic toxicological properties of bonded silica gels have not been investigated. This product contains synthetic amorphous silica, and should not be confused with crystalline silica such as quartz, cristobalite, or tridymite, or with diatomaceous earth or other naturally occurring forms of amorphous silica that frequently contain crystalline forms of silica.

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy
- [A] Constituent
- [B] Impurity
- [C] Stabilising additive

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Silica gel	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Organosilane bonded silica gel	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Organosilane bonded silica gel	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Organosilane bonded silica gel	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Organosilane bonded silica gel	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Organosilane bonded silica gel	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Silica gel	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Silica gel	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

SECTION 4: First aid measures

Ingestion	: Silica gel	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Organosilane bonded silica gel	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	: Silica gel	No action shall be taken involving any personal risk or without suitable training.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: Silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
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	Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

SECTION 4: First aid measures

Inhalation	: Silica gel	eyes. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Skin contact	: Silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
Ingestion	: Silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Silica gel	Adverse symptoms may include the following: irritation redness
	Organosilane bonded silica gel	Adverse symptoms may include the following: irritation redness
	Organosilane bonded silica gel	Adverse symptoms may include the following: irritation redness
	Organosilane bonded silica gel	Adverse symptoms may include the following: irritation redness
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	silica gel	irritation redness
Inhalation	: Silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
	Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
	Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
	Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
	Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
	Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
	Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
Ingestion	: Silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.
	Organosilane bonded silica gel	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Silica gel	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Organosilane bonded silica gel	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Organosilane bonded silica gel	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Organosilane bonded silica gel	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
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SECTION 4: First aid measures

Specific treatments	: Silica gel	No specific treatment.
	Organosilane bonded silica gel	No specific treatment.
	Organosilane bonded silica gel	No specific treatment.
	Organosilane bonded silica gel	No specific treatment.
	Organosilane bonded silica gel	No specific treatment.
	Organosilane bonded silica gel	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Silica gel	Use an extinguishing agent suitable for the surrounding fire.
	Organosilane bonded silica gel	Use dry chemical powder.
	Organosilane bonded silica gel	Use dry chemical powder.
	Organosilane bonded silica gel	Use dry chemical powder.
	Organosilane bonded silica gel	Use dry chemical powder.
	Organosilane bonded silica gel	Use dry chemical powder.

Unsuitable extinguishing media	: Silica gel	None known.
	Organosilane bonded silica gel	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	Organosilane bonded silica gel	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	Organosilane bonded silica gel	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	Organosilane bonded silica gel	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	Organosilane bonded silica gel	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Silica gel	No specific fire or explosion hazard.
	Organosilane bonded silica gel	May form explosible dust-air mixture if dispersed.
	Organosilane bonded silica gel	May form explosible dust-air mixture if dispersed.
	Organosilane bonded silica gel	May form explosible dust-air mixture if dispersed.
	Organosilane bonded silica gel	May form explosible dust-air mixture if dispersed.
	Organosilane bonded silica gel	May form explosible dust-air mixture if dispersed.
Hazardous combustion products	: Silica gel	Decomposition products may include the following materials: metal oxide/oxides
	Organosilane bonded silica gel	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
	Organosilane bonded silica gel	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides

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SECTION 5: Firefighting measures

Organosilane bonded silica gel	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
Organosilane bonded silica gel	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
Organosilane bonded silica gel	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters

: Silica gel	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Organosilane bonded silica gel	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Organosilane bonded silica gel	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Organosilane bonded silica gel	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Organosilane bonded silica gel	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Organosilane bonded silica gel	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Silica gel	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Organosilane bonded silica gel	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Organosilane bonded silica gel	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a

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Organosilane bonded silica gel	basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Organosilane bonded silica gel	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Organosilane bonded silica gel	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Silica gel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing dust. Put on appropriate personal protective equipment.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
	Organosilane bonded silica gel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.

SECTION 6: Accidental release measures

For emergency responders

: Silica gel	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Organosilane bonded silica gel	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Organosilane bonded silica gel	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
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Organosilane bonded silica gel	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Organosilane bonded silica gel	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Silica gel	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Organosilane bonded silica gel	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Organosilane bonded silica gel	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Organosilane bonded silica gel	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Organosilane bonded silica gel	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Organosilane bonded silica gel	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up

: Silica gel	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Organosilane bonded silica gel	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Organosilane bonded silica gel	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

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SECTION 6: Accidental release measures

Organosilane bonded silica gel	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Organosilane bonded silica gel	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Organosilane bonded silica gel	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: Silica gel	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust.
	Organosilane bonded silica gel	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
	Organosilane bonded silica gel	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
	Organosilane bonded silica gel	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
	Organosilane bonded silica gel	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust

SECTION 7: Handling and storage

when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

Organosilane bonded silica gel

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

Advice on general occupational hygiene

: Silica gel

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Organosilane bonded silica gel

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Organosilane bonded silica gel

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Organosilane bonded silica gel

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Organosilane bonded silica gel

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Organosilane bonded silica gel

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

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SECTION 7: Handling and storage

Storage

: Silica gel

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Organosilane bonded silica gel

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Organosilane bonded silica gel

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Organosilane bonded silica gel

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Organosilane bonded silica gel

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Organosilane bonded silica gel

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition

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SECTION 7: Handling and storage

sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations	: Silica gel	Industrial applications, Professional applications.
	Organosilane bonded silica gel	Industrial applications, Professional applications.
	Organosilane bonded silica gel	Industrial applications, Professional applications.
	Organosilane bonded silica gel	Industrial applications, Professional applications.
	Organosilane bonded silica gel	Industrial applications, Professional applications.
	Organosilane bonded silica gel	Industrial applications, Professional applications.
Industrial sector specific solutions	: Silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.

SECTION 8: Exposure controls/personal protection

Since the hazardous ingredient in this article is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

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SECTION 8: Exposure controls/personal protection

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	Silica gel	Solid. [Powder.]
		Organosilane bonded silica gel	Solid. [Powder.]
		Organosilane bonded silica gel	Solid. [Powder.]
		Organosilane bonded silica gel	Solid. [Powder.]
		Organosilane bonded silica gel	Solid. [Powder.]
		Organosilane bonded silica gel	Solid. [Powder.]
		Organosilane bonded silica gel	Solid. [Powder.]
		Organosilane bonded silica gel	Solid. [Powder.]
Colour	:	Silica gel	White.
		Organosilane bonded silica gel	White.
		Organosilane bonded silica gel	White.
		Organosilane bonded silica gel	White.
		Organosilane bonded silica gel	White.
		Organosilane bonded silica gel	White.

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SECTION 9: Physical and chemical properties

Odour	: Silica gel	Odourless.
	Organosilane bonded silica gel	Odourless.
	Organosilane bonded silica gel	Odourless.
	Organosilane bonded silica gel	Odourless.
	Organosilane bonded silica gel	Odourless.
	Organosilane bonded silica gel	Odourless.
	Organosilane bonded silica gel	Odourless.
Odour threshold	: Silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
Melting point/freezing point	: Silica gel	>1700°C
	Organosilane bonded silica gel	>1700°C
	Organosilane bonded silica gel	>1700°C
	Organosilane bonded silica gel	>1700°C
	Organosilane bonded silica gel	>1700°C
	Organosilane bonded silica gel	>1700°C
	Organosilane bonded silica gel	>1700°C
Initial boiling point and boiling range	: Silica gel	2230°C (4046°F)
	Organosilane bonded silica gel	2230°C (4046°F)
	Organosilane bonded silica gel	2230°C (4046°F)
	Organosilane bonded silica gel	2230°C (4046°F)
	Organosilane bonded silica gel	2230°C (4046°F)
	Organosilane bonded silica gel	2230°C (4046°F)
	Organosilane bonded silica gel	2230°C (4046°F)
Flammability (solid, gas)	: Silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.

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SECTION 9: Physical and chemical properties

Upper/lower flammability or explosive limits	: Silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
Flash point	: Silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
Auto-ignition temperature	: Silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
Decomposition temperature	: Silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
pH	: Silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.

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SECTION 9: Physical and chemical properties

Viscosity	: Silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
Solubility(ies)	: Silica gel	Insoluble in the following materials: cold water and hot water.
	Organosilane bonded silica gel	Insoluble in the following materials: cold water and hot water.
	Organosilane bonded silica gel	Insoluble in the following materials: cold water and hot water.
	Organosilane bonded silica gel	Insoluble in the following materials: cold water and hot water.
	Organosilane bonded silica gel	Insoluble in the following materials: cold water and hot water.
	Organosilane bonded silica gel	Insoluble in the following materials: cold water and hot water.
	Organosilane bonded silica gel	Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Silica gel	Not available.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
Vapour pressure	: Silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
Evaporation rate	: Silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.

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SECTION 9: Physical and chemical properties

Relative density	: Silica gel	2.5 to 3.5
	Organosilane bonded silica gel	2.5 to 3.5
	Organosilane bonded silica gel	2.5 to 3.5
	Organosilane bonded silica gel	2.5 to 3.5
	Organosilane bonded silica gel	2.5 to 3.5
	Organosilane bonded silica gel	2.5 to 3.5
	Organosilane bonded silica gel	2.5 to 3.5
	Organosilane bonded silica gel	2.5 to 3.5
Vapour density	: Silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
Oxidising properties	: Silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.

Particle characteristics

Median particle size	: Silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.
	Organosilane bonded silica gel	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Silica gel	No specific test data related to reactivity available for this product or its ingredients.
	Organosilane bonded silica gel	No specific test data related to reactivity available for this product or its ingredients.
	Organosilane bonded silica gel	No specific test data related to reactivity available for this product or its ingredients.
	Organosilane bonded silica gel	No specific test data related to reactivity available for this product or its ingredients.
	Organosilane bonded silica gel	No specific test data related to reactivity available for this product or its ingredients.
	Organosilane bonded silica gel	No specific test data related to reactivity available for this product or its ingredients.
	Organosilane bonded silica gel	No specific test data related to reactivity available for this product or its ingredients.
	Organosilane bonded silica gel	No specific test data related to reactivity available for this product or its ingredients.

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SECTION 10: Stability and reactivity

silica gel product or its ingredients.

10.2 Chemical stability

- : Silica gel The product is stable.
- Organosilane bonded silica gel The product is stable.
- Organosilane bonded silica gel The product is stable.
- Organosilane bonded silica gel The product is stable.
- Organosilane bonded silica gel The product is stable.
- Organosilane bonded silica gel The product is stable.

10.3 Possibility of hazardous reactions

- : Silica gel Under normal conditions of storage and use, hazardous reactions will not occur.
- Organosilane bonded silica gel Under normal conditions of storage and use, hazardous reactions will not occur.
- Organosilane bonded silica gel Under normal conditions of storage and use, hazardous reactions will not occur.
- Organosilane bonded silica gel Under normal conditions of storage and use, hazardous reactions will not occur.
- Organosilane bonded silica gel Under normal conditions of storage and use, hazardous reactions will not occur.
- Organosilane bonded silica gel Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

- : Silica gel No specific data.
- Organosilane bonded silica gel Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
- Organosilane bonded silica gel Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
- Organosilane bonded silica gel Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
- Organosilane bonded silica gel Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.

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SECTION 10: Stability and reactivity

10.5 Incompatible materials	: Silica gel	May react or be incompatible with oxidising materials.
	Organosilane bonded silica gel	Reactive or incompatible with the following materials: oxidising materials
	Organosilane bonded silica gel	Reactive or incompatible with the following materials: oxidising materials
	Organosilane bonded silica gel	Reactive or incompatible with the following materials: oxidising materials
	Organosilane bonded silica gel	Reactive or incompatible with the following materials: oxidising materials
10.6 Hazardous decomposition products	: Silica gel	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Organosilane bonded silica gel	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Organosilane bonded silica gel	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Organosilane bonded silica gel	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Organosilane bonded silica gel	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Organosilane bonded silica gel	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Silica gel Silica Gel	LC50 Inhalation Dusts and mists LD50 Oral	Rat Rat - Male, Female	>58.8 mg/l >5000 mg/kg	4 hours -

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

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SECTION 11: Toxicological information

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

: Silica gel	Routes of entry anticipated: Oral, Dermal, Inhalation.
Organosilane bonded silica gel	Not available.
Organosilane bonded silica gel	Not available.
Organosilane bonded silica gel	Not available.
Organosilane bonded silica gel	Not available.
Organosilane bonded silica gel	Not available.

Potential acute health effects

Inhalation

: Silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Ingestion

: Silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.

Skin contact

: Silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.
Organosilane bonded silica gel	No known significant effects or critical hazards.

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Eye contact	:	Silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
		Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
		Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
		Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
		Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
		Organosilane bonded silica gel	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	:	Silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
		Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
		Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
		Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
		Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing
		Organosilane bonded silica gel	Adverse symptoms may include the following: respiratory tract irritation coughing

Ingestion	:	Silica gel	No specific data.
		Organosilane bonded silica gel	No specific data.
		Organosilane bonded silica gel	No specific data.
		Organosilane bonded silica gel	No specific data.
		Organosilane bonded silica gel	No specific data.
		Organosilane bonded silica gel	No specific data.

Skin contact	:	Silica gel	No specific data.
		Organosilane bonded silica gel	No specific data.
		Organosilane bonded silica gel	No specific data.
		Organosilane bonded silica gel	No specific data.
		Organosilane bonded silica gel	No specific data.

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SECTION 11: Toxicological information

	silica gel	No specific data.
	Organosilane bonded silica gel	
Eye contact	: Silica gel	Adverse symptoms may include the following: irritation redness
	Organosilane bonded silica gel	Adverse symptoms may include the following: irritation redness
	Organosilane bonded silica gel	Adverse symptoms may include the following: irritation redness
	Organosilane bonded silica gel	Adverse symptoms may include the following: irritation redness
	Organosilane bonded silica gel	Adverse symptoms may include the following: irritation redness
	Organosilane bonded silica gel	Adverse symptoms may include the following: irritation redness

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Silica gel	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	Organosilane bonded silica gel	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	Organosilane bonded silica gel	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	Organosilane bonded silica gel	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	Organosilane bonded silica gel	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	Organosilane bonded silica gel	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Carcinogenicity	: Silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.

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SECTION 11: Toxicological information

	Organosilane bonded silica gel	No known significant effects or critical hazards.
Mutagenicity	: Silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
Reproductive toxicity	: Silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.
	Organosilane bonded silica gel	No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Silica gel Silica Gel	-	-	Not readily
Organosilane bonded silica gel Organosilane bonded silica gel	-	-	Not readily
Organosilane bonded silica gel Organosilane bonded silica gel	-	-	Not readily
Organosilane bonded silica gel Organosilane bonded silica gel	-	-	Not readily
Organosilane bonded silica gel Organosilane bonded silica gel	-	-	Not readily
Organosilane bonded silica gel Organosilane bonded silica gel	-	-	Not readily

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SECTION 12: Ecological information

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Organosilane bonded silica gel Organosilane bonded silica gel	-	<500	low
Organosilane bonded silica gel Organosilane bonded silica gel	-	<500	low
Organosilane bonded silica gel Organosilane bonded silica gel	-	<500	low
Organosilane bonded silica gel Organosilane bonded silica gel	-	<500	low
Organosilane bonded silica gel Organosilane bonded silica gel	-	<500	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Silica gel Silica Gel	Not applicable (Inorganic)	N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A
Organosilane bonded silica gel Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organosilane bonded silica gel Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organosilane bonded silica gel Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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SECTION 12: Ecological information

Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organosilane bonded silica gel							
Organosilane bonded silica gel	N/A	N/A	N/A	N/A	N/A	N/A	N/A

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

This Safety Data Sheet is written based on the encapsulated substance or mixture in this article. Since the hazardous ingredient is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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SECTION 14: Transport information

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Label	: Silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.
	Organosilane bonded silica gel	Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

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SECTION 15: Regulatory information

Europe	: All components are listed or exempted.
Japan	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
New Zealand	: All components are listed or exempted.
Philippines	: Not determined.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: All components are listed or exempted.
United States	: All components are active or exempted.
Viet Nam	: Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

[Procedure used to derive the classification according to Regulation \(EC\) No. 1272/2008 \[CLP/GHS\]](#)

Classification	Justification
Not classified.	

[Full text of abbreviated H statements](#)

Not applicable.

[Full text of classifications \[CLP/GHS\]](#)

Not applicable.

Date of issue/ Date of revision : 17/05/2022

Date of previous issue : No previous validation

Version : 1

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