



**LEONID CHEMICALS PVT. LTD.,  
BANGALORE**

An ISO-9001:2008 Certified Company

Quality Assurance Department

(CODE) DOCUMENT : WI

(CODE) SECTION : WI/SM

(DATE) : 01.04.2013

Issue : 02

Rev.: 00

Title: MATERIAL SAFETY DATA SHEET (MSDS): SILICA GEL

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## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Silica gel

Catalog Numbers: S001, S199, S006, S004, S002, S005

Synonyms: None

CAS-No. : 63231-67-4

Company Information:

**LEONID CHEMICALS Pvt Ltd,**  
62/A2, 1<sup>st</sup> Stage,  
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## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. This substance is not classified as dangerous according to Directive 67/548/EEC.

### 2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

### 2.3 Other hazards - none

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Molecular Weight : 60,09 g/mol

No components need to be disclosed according to the applicable regulations.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

General advice



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Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

no data available

**SECTION 5: FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture**

silicon oxides

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

no data available

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Avoid breathing dust.

For personal protection see section 8.

**6.2 Environmental precautions**



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Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.  
For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use(s)

A part from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

Appropriate engineering controls  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.  
Personal protective equipment  
Eye/face protection  
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.



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The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

### Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Do not let product enter drains.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- a) Appearance Form : solid
- b) Odour :no data available
- c) Odour Threshold :no data available
- d) pH :3,6 - 4,3 at 40 g/l
- e) Melting point/freezing point :Melting point/range: > 1.600 °C
- f) Initial boiling point and boiling range :2.200 °C at 1.013 hPa
- g) Flash point :not applicable
- h) Evapouration rate :no data available
- i) Flammability (solid, gas) :no data available
- j) Upper/lower flammability or explosive limits :no data available
- k) Vapour pressure :no data available



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- l) Vapour density :no data available
- m) Relative density :2,200 g/cm<sup>3</sup>
- n) Water solubility :insoluble
- o) Partition coefficient:  
n-octanol/water :no data available
- p) Auto-ignition  
temperature :no data available
- q) Decomposition  
temperature :no data available
- r) Viscosity :no data available
- s) Explosive properties :no data available
- t) Oxidizing properties :no data available

**9.2 Other safety information**  
no data available

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity**

no data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

no data available

**10.4 Conditions to avoid**

Exposure to moisture may affect product quality.

**10.5 Incompatible materials**

Strong acids, Strong bases, Hydrogen fluoride, Oxidizing agents, Ammonia, Oxygen difluoride, Chlorine trifluoride

**10.6 Hazardous decomposition products**

In the event of fire: see section 5

**SECTION 11: TOXICOLOGICAL INFORMATION**



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## 11.1 Information on toxicological effects

### Acute toxicity

no data available

### Skin corrosion/irritation

no data available

### Serious eye damage/eye irritation

no data available

### Respiratory or skin sensitisation

no data available

### Germ cell mutagenicity

rat

Lungs

Body fluid assay

rat

Unscheduled DNA synthesis

### Carcinogenicity

Carcinogenicity - rat - Inhalation

Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or  
Respiration: Tumors.

This product is or contains a component that is not classifiable as to its  
carcinogenicity based on its IARC,  
ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Pyrogenic  
colloidal silica)

3 - Group 3: Not classifiable as to its carcinogenicity to humans (Pyrogenic  
colloidal silica)

### Reproductive toxicity

no data available

### Specific target organ toxicity - single exposure

no data available

### Specific target organ toxicity - repeated exposure

no data available

### Aspiration hazard

no data available

### Additional Information





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RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

no data available

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 UN number

ADR/RID:

IMDG:

IATA:

### 14.2 UN proper shipping name

ADR/RID:

IMDG:

IATA:

### 14.3 Transport hazard class(es)



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- ADR/RID:                      IMDG:                                      IATA:
- 14.4 Packaging group
- ADR/RID:                      IMDG:                                      IATA:
- 14.5 Environmental hazards
- ADR/RID:                      IMDG Marine pollutant:                      IATA:
- 14.6 Special precautions for user
- no data available

**SECTION 15: REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- no data available
- 15.2 Chemical Safety Assessment
- For this product a chemical safety assessment was not carried out

**SECTION 16 - ADDITIONAL INFORMATION**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Leonid Chemicals Pvt. Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Leonid Chemicals Pvt. Ltd. has been advised of the possibility of such damages.

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	<b>LEONID CHEMICALS PVT. LTD.,</b> <b>BANGALORE</b> An ISO-9001:2008 Certified Company <b>Quality Assurance Department</b>	(CODE) DOCUMENT : R/QPM/8.2.4/06	
		(CODE) SECTION : S002	
Title: SPECIFICATION MANUAL - SILICA GEL100-200 MESH			Issue : 02 Rev.: 00 1   Page of 1

**Specification manual - Silica gel 100-200 mesh**

**SiO<sub>2</sub>**

**MW: 60.08**

**Product** : Silica gel 100-200 mesh LR Grade  
**Description** : White to off-white powder  
**Cat No** : S002  
**Cas No** : 63231-67-4  
**Prepared Date** : 07.03.2005  
**Approved Date** : 07.03.2005

REVISION HISTORY			
Issue/Rev	Description of Change	Author	Effective Date
01/00	Initial Release	S. Paul Joshua	07.03.2005
02/00	Reviewed no changes	S. Paul Joshua	01.04.2011
Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		

Sl. No.	Tests	Specification
		LR
1	Particle size 100 - 200 mesh	
2	Passing through 100 mesh	Min 95 %
3	Passing through 200 mesh	Min 15 %
4	pH of 10% suspension	6.8
5	Activity	36 ml

Approved By: S.Paul Joshua, Head Quality Control and Quality Assurance

	<b>LEONID CHEMICALS PVT. LTD.,</b> <b>BANGALORE</b> An ISO-9001:2008 Certified Company <b>Quality Assurance Department</b>	(CODE) DOCUMENT : R/QPM/8.2.4/06	
		(CODE) SECTION : S001	
Title: SPECIFICATION MANUAL - SILICA GEL60-120 MESH			Issue : 02 Rev.: 00 1   Page of 1

**Specification manual - Silica gel 60-120 mesh**

SiCl<sub>2</sub>

MW: 141.93

**Product** : Silica gel 60-120 mesh LR Grade  
**Description** : White to off-white powder  
**Cat No** : S001  
**Cas No** :  
**Prepared Date** : 07.03.2005  
**Approved Date** : 07.03.2005

REVISION HISTORY			
Issue/Rev	Description of Change	Author	Effective Date
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02/00	Reviewed no changes	S. Paul Joshua	01.04.2011
Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		

Sl. No.	Tests	Specification
		LR
1	Particle size	60 - 120mesh
2	Percentage 60	Min 95%
3	Percentage 120	Max 20%
4	pH of 10% solution	Abt 7.0
5	Activity	36ml

Approved By: S.Paul Joshua, Head Quality Control and Quality Assurance



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(CODE) DOCUMENT :  
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(CODE) SECTION :  
S001

(DATE) : 17.06.2013



Issue : 02

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Title: SPECIFICATION MANUAL - SILICA GEL60-120 MESH

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## Specification manual - Silica gel 60-120 mesh

SiO<sub>2</sub>

MW: 141.93

**Product** : Silica gel 60-120 mesh LR  
**Description** : White powder.  
**Cat No** : S001  
**Cas No** : 63231-67-4  
**Prepared Date** : 07.03.2005  
**Approved Date** : 07.03.2005

### REVISION HISTORY

Issue/Rev	Description of Change	Author	Effective Date
01/00	Initial Release	S. Paul Joshua	07.03.2005
02/00	Reviewed no changes	S. Paul Joshua	01.04.2011
02/01	Included "Description" in the Tests	S. Paul Joshua	17.06.2013
Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		

Sl. No.	Tests	Specification
		LR
1	Description	White powder
2	Particle size	60 - 120 mesh
3	Percentage 60	Min 95 %
4	Percentage 120	Max 20 %
5	pH of 10% solution	Abt 7.0
6	Activity	36 ml

**Approved By: S. Paul Joshua, Head Quality Control and Quality Assurance**

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(CODE) SECTION :  
S005

(DATE) : 17.06.2013



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Rev.: 01

Title: SPECIFICATION MANUAL - SILICA GEL230-400 MESH

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## Specification manual - Silica gel 230-400 mesh

SiO<sub>2</sub>

MW: 141.93

**Product** : Silica gel 230-400 mesh LR Grade  
**Description** : White powder  
**Cat No** : S005  
**Cas No** : 63231-67-4  
**Prepared Date** : 07.03.2005  
**Approved Date** : 07.03.2005

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02/01	Included "Description" in the Tests	S. Paul Joshua	17.06.2013
Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		

Sl. No.	Tests	Specification
		LR
1	Description	White powder
2	Particle size	230 – 400 mesh
3	Percentage 230	Min 85%
4	Percentage 400	Max 25%
5	pH of 10% suspension at 20°C	Abt 7
6	Activity	35ml

**Approved By: S. Paul Joshua, Head Quality Control and Quality Assurance**

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