



# Material Safety Data Sheet

roVa™ Guard

Revision Date : 09/11/2019

## 1. Product and Company Identification

**Product Name:** roVa™ Guard

**Material Description:** Opacified silica aerogel blanket

**Use of the Substance/Preparation:** Material, Industrial Products, Various  
High performance insulation material  
Biochemical carriers

**Chemical Family:** Silica Aerogel Material

**Formula:** Proprietary

**Manufacturer:** roVa Corporation  
**Address:** 382, Gangnam-daero, Gangnam-gu, Seoul, Korea - 06232

**Telephone:** +82 2 796 8440  
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## 2. PRODUCT INGREDIENTS

Ingredient	CAS Number	Percent	EINECS number
Silica gel Tremethylsilylated	7631-86-9	40~50	262-373-8
Polyester Fiber	80595-68-2	40~50	Not assigned
Etc.	NA	<=5	Not assigned

*No exposure limits established for this specific material; values reported are for Silica 7631-86-9*

## 3. PHYSICAL/CHEMICAL CHARACTERISTICS

<b>APPEARANCE:</b>	White blanket
<b>ODOR:</b>	None
<b>SPECIFIC GRAVITY:</b>	< 0.16g/cc

## 4. FIRE AND EXPLOSION HAZARD DATA

**Flash Point:** Not applicable

**Extinguishing Media:**

Use media suitable for surrounding fire and that are appropriate to the surrounding environment; normal fog nozzle water application and/or exclusion of air is suitable for extinguishing this product in blanket form.

**Special Fire Fighting Prec:**

Wear NIOSH/MSHA approved SCBA and full protective equipment.

**Unusual Fire And Explosion Hazards:**

Rapid exposure of the product to excessive heat or flame can generate local concentrations of combustible vapors.

Product is a super-insulation material. Rolls of material can retain heat within internal layers causing re-ignition in the presence of oxygen if heat is not removed.

**Dust Explosion Potential:**

Surface treated silica gel materials are not a readily combustible or explosive substance. If dust clouds of particulates are generated from aggressive handling of the product, caution should be taken to avoid static discharges; ground all metal parts of cutting/processing equipment.

**5. Reactivity Data**

**Stability:** Stable

**Conditions To Avoid:**

Prolonged exposure to temperatures above the recommended use temperature. Avoid contact with fluorinating agents.

Avoid conditions that produce large quantities of dust dispersed in air.

**Hazardous Decomposition Products:**

PAN fibers can generate gaseous products on heating to temperatures higher than 650°F and It's recommended that the PAN fibers be used with ventilation. Depending on the temperature you can generate different proportions of the following, nitrogen-containing products; NH<sub>3</sub> (ammonia), HCN (hydrogen cyanide), N<sub>2</sub>, and monomeric acrylonitrile.

May release small amounts of ammonia, NO<sub>x</sub>, carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) when heated to the decomposition point. Amorphous silicon dioxide can crystallize into hazardous respirable materials (i.e. cristobalite) after prolonged exposure to temperatures above 1200°C.

**Hazardous Polymerization Indicator:** None

**6. Health Hazard Data****ROUTE OF EXPOSURE-INHEALATION****Acute Effects of Exposure:**

Excessive, short-term exposure to airborne dusts may cause irritation of the upper respiratory tract.

**Chronic Effects of Exposure:**

Silica: This product is composed of amorphous silicon dioxide, often referred to as silica gel or amorphous precipitated silica. Amorphous silica should not to be confused with crystalline silica. Epidemiological studies indicate low potential for adverse health effects. Silica gel is considered by NIOSH/OSHA to be a nuisance dust. There is inadequate evidence in humans for the carcinogenicity of amorphous silica. There is inadequate evidence in experimental animals for the carcinogenicity of amorphous silica. Amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3). (Amorphous Silica Gel).

**Route Of Exposure-Skin/Eye:****Acute effects of exposure:**

Dessicant action of activated silica gels can produce drying and irritation of the skin and mucous membranes.

**Chronic Effects of Exposure:**

None known for product

**Route Of Exposure-Ingest:****Acute effects of exposure:**

May produce mechanical irritation and blockage

**Chronic Effects of Exposure:**

None known for product

**Carcinogenicity:**

See discussion above

**Sings/Symptoms Of Overexposure:**

Tearing of eyes, irritation of throat, cough

**Medical Condition Aggravated By Exposure:**

Excessive inhalation of dust may aggravate pre-existing chronic lung conditions including, but not limited to, bronchitis, emphysema, asthma

**Emergency/First Aid Procedure:**

Eye: Immediately wash with large amounts of water for at least 15 minutes, occasionally lifting lids. If irritation occurs and persists, get medical treatment.

**Skin:** Wash with soap and water immediately.

**Ingest:** Material will pass through the body normally.

**Inhale:** Remove to fresh air.

<b>7. Precautions For Safe Handling And Use</b>
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**Steps If Material Is Released/Spill:**

Not known to have any adverse affects on the aquatic environment. Material is insoluble and nontoxic. Sweep or vacuum up.



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**Wasted Disposal Method:**

Dispose in an approved landfill IAW federal, state, and local regulation. Cover promptly to avoid blowing of dust.

**Precautions-Handling/Strong:**

Avoid conditions that generate large quantities of dust. Ground metal containers and tools used to handle the product.

**Other Precautions Handling/Storing:**

Avoid breathing of dust, contact of dust with skin. Drying action can cause irritation of mucous membranes of nose and throat and irritation of skin. If use requires material handling, wear long sleeves and nitrile gloves. Hands should be washed thoroughly after handling.

## 8. Control Measures

**Respiratory Protection:**

If conditions are present involving dust evolution, wear properly fitted NIOSH/MSHA approved respirator with P100 cartridge or cannister. A respiratory protection program that meets OSHA 29 CFR Part 1910.134 and ANSI Z88.2 requirements whenever workplace conditions warrant use of a respirator.

**Ventilation:** Local exhaust to control dust

**Protective Gloves:** Nitrile, latex or other impermeable gloves to control dermal exposure

**Eye Protection:** Chemical goggles

**Other Protective Equipment:** Long sleeves

**Work Hygienic Practices:**

Keep materials packaged until just prior to use. Die cut in preference to rotary or other cutting methods. Dry vacuum with proper filtration preferred to sweeping. Wash thoroughly after using the product. Wash clothing if dust conditions present. Wash hands before eating or drinking.

## 9. Transportation Data

**DOT PROPER SHIPPING NAME:** Not regulated by this mode of transportation.

**IMO PROPER SHIPPING NAME:** Not regulated by this mode of transportation.

**IATA PROPER SHIPPING NAME:** Not regulated by this mode of transportation.

**AFI PROPER SHIPPING NAME:** Not regulated by this mode of transportation.

## 10. Toxicological Information

**Acute Oral Toxicity:**

No data available



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**Acute Dermal Toxicity:**

No data available

**Acute Inhalational Toxicity:**

No data available

**Skin Corrosion/ Irritation:**

No data available

**Serious eye damage/ Irritation:**

No data available

**Other information:**

The information was derived from products of similar composition.

## 11. Other Regulatory Information

**MSDS Creation Date:** 09/11/2019

**Revision number and date**

Number of Revision : 0  
Revision Date : / /

Date format : mm/dd/yyyy

## 12. Disclaimer

The Data set forth in these sheets are based on the information provided by the suppliers of the raw materials and chemicals used in the manufacturing of the aforementioned product. roVa corporation makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereon.

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