



# SAFETY DATA SHEET SILICA GEL WHITE REVISION 3, DATE 16 JUN 20

## 1. IDENTIFICATION

Product Name	Silica Gel White
Other Names	Silica - Amorphous
Uses	Desiccant.
Chemical Family	No Data Available
Chemical Formula	SiO <sub>2</sub>
Chemical Name	Silicon dioxide
Product Description	Non-Indicating.

### Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

### Emergency Contact Details

*For emergencies only; DO NOT contact these companies for general product advice.*

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

## 2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled



## Globally Harmonised System

<b>Hazard Classification</b>	NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
<b>Signal Word</b>	None

## National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

<b>Dangerous Goods Classification</b>	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Silicon dioxide	SiO <sub>2</sub>	7631-86-9	>99 - 100 %

## 4. FIRST AID MEASURES

## Description of necessary measures according to routes of exposure

<b>Swallowed</b>	IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting unless directed to do so by medical personnel. Get medical advice/attention if large amounts are ingested or if you feel unwell. Never give anything by mouth to an unconscious person.
<b>Eye</b>	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.
<b>Skin</b>	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.
<b>Inhaled</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
<b>Advice to Doctor</b>	Treat symptomatically. Show this data sheet (SDS) to the doctor in attendance.
<b>Medical Conditions Aggravated by Exposure</b>	Existing medical conditions (e.g. asthma, bronchitis) may be aggravated by exposure to dust and lower levels of exposure are less likely to affect smokers compared to non-smokers.

## 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	Move containers from fire area if you can do it without risk. Cool containers with water spray until well after fire is out.
<b>Flammability Conditions</b>	Non-combustible.
<b>Extinguishing Media</b>	If material is involved in a fire, use extinguishing media suitable for surrounding environment.
<b>Fire and Explosion Hazard</b>	Not considered to be a fire hazard. Not considered to be an explosion hazard.
<b>Hazardous Products of Combustion</b>	Oxides of carbon and silicon may be formed when heated to decomposition.

<b>Special Fire Fighting Instructions</b>	Contain runoff from fire control or dilution water - Runoff may cause pollution.
<b>Personal Protective Equipment</b>	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
<b>Flash Point</b>	No Data Available
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	No Data Available

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	Ensure adequate ventilation. Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Vacuum spilled material and place in closed plastic bags for disposal (see SECTION 13). Avoid raising dust.
<b>Containment</b>	Stop leak if you can do it without risk. Prevent dust cloud. Cover powder spill with plastic sheet or tarp to minimise spreading.
<b>Decontamination</b>	Ventilate and clean the affected area.
<b>Environmental Precautionary Measures</b>	Do not discharge into drains/surface waters/groundwater.
<b>Evacuation Criteria</b>	Immediately isolate spill or leak area. Keep unauthorised personnel away.
<b>Personal Precautionary Measures</b>	Use personal protective equipment (see SECTION 8).

## 7. HANDLING AND STORAGE

<b>Handling</b>	Safety showers and eyewash facilities should be prevented from entering drains and watercourses. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment (see SECTION 8). Take precautionary measures against electrostatic discharges. When pouring into a container of flammable liquid, ground both containers electrically to prevent a static electric spark. Use appropriate containment to avoid environmental contamination.
<b>Storage</b>	Store in a cool, dry and well-ventilated place, out of direct sunlight. Protect from moisture - Hygroscopic. Keep container tightly closed. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect against physical damage. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10).
<b>Container</b>	Store in original container. Do not store in unlabelled containers. *Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	For Silica - Amorphous (CAS No. 7631-86-9): - Safe Work Australia Exposure Standard: TWA = 2 mg/m3 (respirable dust).
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available.
<b>Engineering Measures</b>	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

<b>Personal Protection Equipment</b>	<ul style="list-style-type: none"><li>- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Dust mask/particulate respirator (refer to AS/NZS 1715 &amp; 1716).</li><li>- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses or chemical safety goggles.</li><li>- Hand protection: Handle with gloves. Recommended: Protective gloves (cloth, leather, rubber).</li><li>- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls, safety shoes.</li></ul>
<b>Special Hazards Precautions</b>	No information available.
<b>Work Hygienic Practices</b>	Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take off contaminated clothing and wash it before reuse. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Powder, granules, beads
<b>Odour</b>	Odourless
<b>Colour</b>	White
<b>pH</b>	6.0 - 7.5 (10 % slurry)
<b>Vapour Pressure</b>	No Data Available
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	No Data Available
<b>Melting Point</b>	>1,700 °C (at 1013 hPa)
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	15 - 68 mg SiO <sub>2</sub> /L water (20 °C) - 76 - 166 mg SiO <sub>2</sub> /L water (37 °C)
<b>Specific Gravity</b>	1.9 - 2.2
<b>Flash Point</b>	No Data Available
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	No Data Available
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	No Data Available
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	LogPow < 0.5
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	No information available.
<b>Potential for Dust Explosion</b>	No information available.

<b>Fast or Intensely Burning Characteristics</b>	No information available.
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No information available.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No information available.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	Non-combustible.
<b>Reactions That Release Gases or Vapours</b>	Oxides of carbon and silicon may be formed when heated to decomposition.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	Substance can explode when wet and heated with magnesium.
<b>Chemical Stability</b>	Stable under normal conditions of use.
<b>Conditions to Avoid</b>	Avoid generating dust. Protect from moisture.
<b>Materials to Avoid</b>	Incompatible/reactive with Strong bases, oxidizers, hydrogen fluoride, fluorine, xenon hexafluoride, oxygen difluoride, and chlorine trifluoride.
<b>Hazardous Decomposition Products</b>	Oxides of carbon and silicon may be formed when heated to decomposition.
<b>Hazardous Polymerisation</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	<p>Toxicological characteristics:</p> <ul style="list-style-type: none"><li>- Ingestion: No adverse effects expected. May cause gastrointestinal discomfort if consumed in large amounts.</li><li>- Eye contact: Slight transient irritation to the eye conjunctivae. Dust contact with the eyes can lead to mechanical irritation.</li><li>- Skin contact: Not irritating to skin, but may produce skin dryness following prolonged and repeated exposure due to the desiccative and defatting property of amorphous silica.</li><li>- Inhalation: Dust may irritate respiratory system. Prolonged inhalation may be harmful.</li></ul> <p>Chronic effects: Silica, amorphous (CAS No. 7631-86-9) is Classified by the IARC Monographs as "Not classifiable as to its carcinogenicity to humans" (Group 3).</p>
<b>Carcinogen Category</b>	None

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	This material is not expected to be toxic to aquatic life.
<b>Persistence/Degradability</b>	The product solely consists of inorganic compounds which are not biodegradable.
<b>Mobility</b>	No information available.
<b>Environmental Fate</b>	Avoid contaminating drains, sewers and waterways.
<b>Bioaccumulation Potential</b>	Does not bioaccumulate.
<b>Environmental Impact</b>	No Data Available

**13. DISPOSAL CONSIDERATIONS**

<b>General Information</b>	Dispose of contents/container in accordance with local/regional/national regulations.
<b>Special Precautions for Land Fill</b>	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing or use contamination of this product may change the waste management options.

**14. TRANSPORT INFORMATION****Land Transport (Australia)**

ADG Code

<b>Proper Shipping Name</b>	Silica Gel White
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (China)**

<b>Proper Shipping Name</b>	Silica Gel White
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (Malaysia)**

ADR Code

<b>Proper Shipping Name</b>	Silica Gel White
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (New Zealand)**

NZS5433

<b>Proper Shipping Name</b>	Silica Gel White
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (United States of America)**

US DOT

<b>Proper Shipping Name</b>	Silica Gel White
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Sea Transport**

IMDG Code

<b>Proper Shipping Name</b>	Silica Gel White
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>EMS</b>	No Data Available
<b>Marine Pollutant</b>	No
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for SEA transport.

**Air Transport**

IATA DGR

<b>Proper Shipping Name</b>	Silica Gel White
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for AIR transport.

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

**Dangerous Goods Classification**

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

**15. REGULATORY INFORMATION****General Information**

No Data Available

**Poisons Schedule (Aust)**

Not Scheduled

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

**Approval Code**

Not Hazardous

**National/Regional Inventories****Australia (AIC)**

Listed

**Canada (DSL)**

Listed

**Canada (NDSL)**

Not Determined

**China (IECSC)**

Listed

**Europe (EINECS)**

231-545-4

**Europe (REACH)**

Not Determined

**Japan (ENCS/METI)**

Listed

**Korea (KECI)**

Listed

**Malaysia (EHS Register)**

Not Determined

**New Zealand (NZIoC)**

Listed

**Philippines (PICCS)**

Not Determined

**Switzerland (Giftliste 1)**

Not Determined

**Switzerland (Inventory of Notified Substances)**

Not Determined

**Taiwan (NCSR)**

Not Determined

**USA (TSCA)**

Listed

**16. OTHER INFORMATION**



# SAFETY DATA SHEET SILICA GEL WHITE REVISION 3, DATE 16 JUN 20

<b>Related Product Codes</b>	SILGEL1600, SILGEL1610, SILGEL1802, SILGEL2200, SILGEL2800, SILGEL8000, SILGEL9900
<b>Revision</b>	3
<b>Revision Date</b>	16 Jun 2020
<b>Key/Legend</b>	<p>&lt; Less Than</p> <p>&gt; Greater Than</p> <p><b>AICS</b> Australian Inventory of Chemical Substances</p> <p><b>atm</b> Atmosphere</p> <p><b>CAS</b> Chemical Abstracts Service (Registry Number)</p> <p><b>cm<sup>2</sup></b> Square Centimetres</p> <p><b>CO<sub>2</sub></b> Carbon Dioxide</p> <p><b>COD</b> Chemical Oxygen Demand</p> <p><b>deg C (°C)</b> Degrees Celcius</p> <p><b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand</p> <p><b>deg F (°F)</b> Degrees Farenheit</p> <p><b>g</b> Grams</p> <p><b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre</p> <p><b>g/l</b> Grams per Litre</p> <p><b>HSNO</b> Hazardous Substance and New Organism</p> <p><b>IDLH</b> Immediately Dangerous to Life and Health</p> <p><b>immiscible</b> Liquids are insoluable in each other.</p> <p><b>inHg</b> Inch of Mercury</p> <p><b>inH<sub>2</sub>O</b> Inch of Water</p> <p><b>K</b> Kelvin</p> <p><b>kg</b> Kilogram</p> <p><b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre</p> <p><b>lb</b> Pound</p> <p><b>LC<sub>50</sub></b> LC stands for lethal concentration. LC<sub>50</sub> is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.</p> <p><b>LD<sub>50</sub></b> LD stands for Lethal Dose. LD<sub>50</sub> is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.</p> <p><b>ltr or L</b> Litre</p> <p><b>m<sup>3</sup></b> Cubic Metre</p> <p><b>mbar</b> Millibar</p> <p><b>mg</b> Milligram</p> <p><b>mg/24H</b> Milligrams per 24 Hours</p> <p><b>mg/kg</b> Milligrams per Kilogram</p> <p><b>mg/m<sup>3</sup></b> Milligrams per Cubic Metre</p> <p><b>Misc or Miscible</b> Liquids form one homogeneous liquid phase regardless of the amount of either component present.</p> <p><b>mm</b> Millimetre</p> <p><b>mmH<sub>2</sub>O</b> Millimetres of Water</p> <p><b>mPa.s</b> Millipascals per Second</p> <p><b>N/A</b> Not Applicable</p> <p><b>NIOSH</b> National Institute for Occupational Safety and Health</p> <p><b>NOHSC</b> National Occupational Heath and Safety Commission</p> <p><b>OECD</b> Organisation for Economic Co-operation and Development</p> <p><b>Oz</b> Ounce</p> <p><b>PEL</b> Permissible Exposure Limit</p> <p><b>Pa</b> Pascal</p> <p><b>ppb</b> Parts per Billion</p> <p><b>ppm</b> Parts per Million</p> <p><b>ppm/2h</b> Parts per Million per 2 Hours</p> <p><b>ppm/6h</b> Parts per Million per 6 Hours</p> <p><b>psi</b> Pounds per Square Inch</p> <p><b>R</b> Rankine</p> <p><b>RCP</b> Reciprocal Calculation Procedure</p> <p><b>STEL</b> Short Term Exposure Limit</p> <p><b>TLV</b> Threshold Limit Value</p> <p><b>tne</b> Tonne</p> <p><b>TWA</b> Time Weighted Average</p> <p><b>ug/24H</b> Micrograms per 24 Hours</p> <p><b>UN</b> United Nations</p> <p><b>wt</b> Weight</p>

