



Material Safety Data Sheet

UNIMIN MILLED SILICA PRODUCTS

Infosafe No. LPVNE **Issue Date** July 2006 **Status** ISSUED by UNIMINAU

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name UNIMIN MILLED SILICA PRODUCTS

Product Code

Company Name

Unimin Australia Limited (ABN 20 000 971 844)

Address

49-55 Woodlands Drive Braeside
Victoria 3195

Emergency Tel.

1800 638 556

Telephone/Fax Number Tel: (03) 9586 5400
Fax: (03) 9586 5413

Recommended Use

Functional filler in ceramics, adhesives, cleaning powders, paints and enamels.

Other Names

Name

Product Code

60G
100G
200G
200/85
300G
350G
400G
100WQ
200WQ
300WQ
200 MESH
SUPERFINE
FERRO 400

2. HAZARDS IDENTIFICATION

Hazard Classification

Classified as Hazardous according to criteria of Australian National Occupational Health & Safety Commission (NOHSC), Australia.
Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Undertake health and safety risk assessment on safe methods of handling and use appropriate to your workplace.

Risk Phrase (s)

R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.

Safety Phrase(s)

S22 Do not breathe dust.
S38 If insufficient ventilation, wear suitable respiratory equipment.
S45 In case of accident or if you feel unwell seek medical advice immediately
S37/39 Wear suitable gloves and eye/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
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	Quartz	14808-60-7	99 %
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Other Information

Contains >20% respirable free crystalline silica in the form of quartz.

4. FIRST AID MEASURES

Inhalation Move the affected person to fresh air. Ensure airways are clear. Keep at rest. Seek medical attention.

Ingestion Do not induce vomiting. Wash out mouth with water. If symptoms develop seek medical attention.

Skin Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye If contact with the eyes occurs, wash with running water for several minutes holding eyelids open. If irritation develops seek medical attention.

First Aid Facilities

Eye wash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable

Extinguishing Media Use appropriate fire extinguishing media for surrounding combustible materials involved in the fire.

Specific Methods Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) and full protective clothing to prevent exposure to vapours, fumes, dust or products of combustion.

Specific Hazards The product is not combustible.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures Wear sufficient respiratory protection and clothing to minimise exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust. Seal all wastes in labelled containers for subsequent recycling or disposal. If the spillage enters the waterways inform the Environmental Protection Authority, or your local Waste Management Authority. The disposal must be done in accordance with the applicable local and national regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling Prevent the creation of dust concentration higher than the occupational exposure limit. Wear appropriate protective equipment to prevent inhalation, skin and eye contact. Keep containers closed when not in use. Ensure a high level of personal hygiene is maintained when using the product.

Conditions for Safe Storage Store in a cool, dry, well-ventilated area. Protect containers/bags from damage. Avoid generation of dust.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Name	STEL (mgm3)	STEL (ppm)	TWA (mgm3)	TWA (ppm)	FootNote
	Quartz			0.1		

Other Exposure Information No exposure standard is established for this material by the National Occupational Health & Safety Commission (NOHSC, Australia, however the exposure standard for respirable crystalline silica, in the form of quartz, as set by NOHSC is given above.
 Note: The exposure limit for dust otherwise not specified is TWA 10 mg/m³ (inspirable fraction).
 TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Engineering Controls Good ventilation adequate to maintain the concentration below exposure standards is required. The use of a local exhaust ventilation system (drawing dusts away from workers breathing zone) is recommended. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn.

Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable particulate filter should be used. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.
Eye Protection	Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments.
Body Protection	Suitable protective workwear should be worn when working with this material, e.g. cotton overalls buttoned at neck and wrist.
Hygiene Measures	Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking or using the toilet facilities.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Odourless white to off white powder.
Melting Point	1700°C
Boiling Point	Not applicable
Solubility in Water	Insoluble
Specific Gravity	2.64-2.66
pH Value	4.0-5.0 (20% aqueous slurry).
Vapour Pressure	Not applicable
Flash Point	Not applicable (Non-combustible solid).
Flammability	Non-combustible solid.
Auto-Ignition Temperature	Not applicable
Flammable Limits - Lower	Not applicable
Flammable Limits - Upper	Not applicable

10. STABILITY AND REACTIVITY

Chemical Stability Stable

Hazardous Polymerization Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information Respirable crystalline silica (particle size smaller than 7 micrometres), is regarded as a danger to health by prolonged exposure through inhalation. Repeated, prolonged or concentrated inhalation of respirable crystalline silica dust may lead to silicosis, a serious lung disease.

Inhalation Breathing of dust may cause shortness of breath, and aggravate asthma and inflammatory or fibrotic pulmonary disease. Inhalation may cause delayed lung disease. Acute aspiration may cause drying and irritation of the respiratory tract, cough, dyspnea, sneezing, vomiting, cyanosis, and pulmonary edema which may be delayed by up to several hours.

Ingestion Ingestion of large amounts may irritate the gastric tract causing nausea and vomiting.

Skin Skin contact may cause dryness. May cause mild irritation in the case of some individuals with sensitive skin.

Eye Eye contact may cause mechanical irritation.

Chronic Effects Toxic, danger of serious damage to health by prolonged exposure through inhalation. The product contains respirable free crystalline silica. Repeated, prolonged or concentrated inhalation of respirable crystalline silica dust may lead to silicosis, a serious lung disease. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased, and may also lead to other diseases including heart disease and scleroderma.

Carcinogenicity The product contains >20% respirable crystalline. Crystalline silica has been classified by International Agency for Research on Cancer (IARC) as carcinogenic to humans by inhalation (Group 1) Furthermore, crystalline silica can cause silicosis or other lung diseases on prolonged exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity Not available

Persistence / Degradability Not available

Mobility Not available

Bioaccumulative Potential Not available

13. DISPOSAL CONSIDERATIONS

Disposal Considerations The disposal of the waste or spilled material must be done in accordance with the applicable local, state and federal government regulations.

14. TRANSPORT INFORMATION

Transport Information The product is not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Storage and Transport Not classified as dangerous goods.

15. REGULATORY INFORMATION

Regulatory Information Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Poisons Schedule Not Scheduled

Hazard Category Toxic

AICS (Australia) All constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Date of preparation or last revision of MSDS MSDS created: July 2006

Contact Person/Point Emergency Advice: ACOHS ERS - 1800 638 556 (24 Hours)

PLEASE NOTE:
The information contained herein is based on data available to Unimin Australia Limited from both our own technical sources and from recognised published references and is believed to be both accurate and reliable. Unimin Australia Limited has made no effort to censor nor to conceal deleterious aspects of this product. Since we cannot anticipate or control the many different conditions under which this information and our products may be used, each user should review these recommendations in the specific context of the intended application and confirm whether they are appropriate. It is therefore recommended that you undertake your own risk assessment in relation to your method of handling and proposed use of this product. Unimin Australia Limited accepts no liability whatsoever for damage or injury caused from the use of this information or of suggestions contained herein.

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