

**FINE SPODUMENE CONCENTRATE**

**MATERIAL SAFETY DATA SHEET**

Date issued: November 1999

**Section 1 - General**

Product: Fine Spodumene Concentrates

Trade Name: Fine Spodumene Concentrates

Producer: Sons of Gwalia Ltd  
16 Parliament Place  
West Perth 6005  
Western Australia

Telephone: (61 8) 9263 5555  
Facsimile: (61 8) 9481 1271

**Section 2 - Chemical and Physical Data**

Description of Material: Mixture of naturally occurring silicates and quartz.

Major Constituents: Spodumene [ $\text{LiAl}(\text{Si}_2\text{O}_6)$ ] 92%  
Quartz ( $\text{SiO}_2$ ) <8%

Appearance: Very fine dry white sand

Colour: White to beige

Smell: Odourless

Specific Gravity: 3.1

Bulk Density: 1.5 tonnes/m<sup>3</sup>

Molecular Weight: Not applicable, complex mixture of minerals

Melting Point: Incipient fusion at 1375°C

Boiling Point: N/A

Solubility: Insoluble in water and common dilute acids.  
Soluble in Hydrofluoric Acid.

### Section 3 - Physical Hazards

Material is non-combustible, non-reactive, stable.

### Section 4 - Health Hazard Data

Toxicity:	Material is inert and non-toxic.
Dust:	Should be treated as other products containing quartz. TLV Total Dust 10 mg/m <sup>3</sup> , TLV Respirable Dust 5 mg/m <sup>3</sup> . TLV Silica Dust 0.2 mg/m <sup>3</sup> . Prolonged and repeated exposure to dust may cause silicosis.
First Aid:	<b>Eyes:</b> Flush with water for at least 15 minutes with eyelids open.  <b>Skin:</b> Wash well with water and soap.  <b>Inhalation:</b> Remove person to fresh air. Consult with physician.
Potential for Carcinogenicity:	Spodumene is not listed as a carcinogen or potential carcinogen by the National Toxicology Program of the US Public Health Service, nor has it been found to be a carcinogen or potential carcinogen by OSHA or the International Agency for Research for Cancer. There are low levels of quartz in this product and silica/quartz is classified as carcinogenic to humans (IARC Group 1). With levels of silica quartz below 8%, potential for adverse health effects are minimised.

### Section 5 - Spill or Leak Procedures

Should be cleaned up by methods appropriate for dusty materials and disposed of in compliance with federal, provincial/state and local laws as they apply to non-hazardous material.

### Section 6 - Handling Precautions

Respiratory Protection:	NIOSH/MSHA approved respirator is recommended when working in dusty conditions.
Eyes and Face:	Safety glasses are recommended when any possibility of dust particles entering the eyes exists.
Other Protective Clothing:	Gloves and other protective clothing may be worn if contact is appreciable.

**Section 7 - Hazard Rating Summary**

Health:	Slight
Flammability:	Minimal
Reactivity:	Minimal
Personal Protection:	Dust Respirator and Safety Glasses

**Section 8 - Use of this Data**

The data in this material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information set forth herein is based on technical data that Sons of GwaliaLtd believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside our control, we make no warranties, expressed or implied, and assume no liability in connection with any use of this information. Nothing herein is to be taken as a licence to operate under or a recommendation to infringe any patents. Any use of these data and information must be determined by the user to be in accordance with Federal, State and Local laws and regulations.