

# TECHNICAL DATA SHEET

Date of Issue: 2023/08/02

## Spodumene Concentrate, SC 7.2 standard

CAS-No. 1302-37-0

Molecular Formula  $\text{AlLi}(\text{SiO}_3)_2$

Product Number 402201

### APPLICATION

Spodumene is used in glasses, glass-ceramics, porcelain enamels, whitewares, and glazes due to the powerful fluxing properties of lithia. It possesses a very low thermal expansion and reduces the viscosity of the glass mass. It contributes to brilliancy and strength of the glass. Spodumene is also used in metallurgical applications, i.a. in continuous casting powders, anti-veining agents, and as additive in foundry feeder production.

### FURTHER INGREDIENTS

Feldspar

CAS-No. 68476-25-5

EC-No. 270-666-7

Quartz ( $\text{SiO}_2$ ) - Alveolar dust fraction

CAS-No. 14808-60-7

EC-No. 238-878-4

### SPECIFICATION

	Specification	Method of Analysis
$\text{Li}_2\text{O}$	min. 7.2 %	AAS
$\text{Al}_2\text{O}_3$	min. 25.0 %	XRF
$\text{SiO}_2$	min. 62.5 %	XRF
$\text{Fe}_2\text{O}_3$	max. 0.17 %	XRF
$\text{Na}_2\text{O}$	max. 0.35 %	XRF
$\text{K}_2\text{O}$	max 0.40 %	XRF
$\text{P}_2\text{O}_5$	max. 0.35 %	XRF
CaO	max. 0.10 %	XRF
LOI (1000 °C)	max. 0.5 %	gravimetric

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## PHYSICAL PROPERTIES

Appearance	granular
Color	white to beige
Melting point/ range	from 1,375 °C
Density	3.1 g/cm <sup>3</sup>
Bulk density	1,500 kg/m <sup>3</sup>
Water solubility	(immiscible)

Grain Size	Grain Size	Guaranteed
	< 500 µm	100 %
	> 212 µm	max. 18 %
	> 75 µm	min. 60 %

Additional Physical Properties	Spodumene is a mineral with the general formula [LiAl(Si <sub>2</sub> O <sub>6</sub> )]	
	Major Composition	Weight %
	Spodumene	~ 94 %
	Quartz	~ 5 %
	Feldspar	~ 1 %

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## HANDLING & STORAGE

Handling	Observe official safety regulations
Storage	Store in dry conditions as material is produced and consumed as a dried product. Do not store together with volatile chemicals as they may be absorbed into the product.

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## TRANSPORT & PACKAGING

ADR  
Not regulated as a dangerous good

### Packaging

- bulk in silo trucks / tipping trucks / trailers
  - big bags (1000 kg) on pallet
  - 25 kg paper bags on pallets of 1000 kg
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## OTHER INFORMATION

Further Related  
Documents

Safety Data Sheet

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