



Solufeed Signal UK

Soluble Silicon

A water soluble and biologically available source of silicon

Uses

Silicon is classed as quasi-essential and as such it is required by some plants and (apparently) not by others. Crops where silicon deficiency is of economic importance include rice, sugar cane, bamboo, cucumbers, roses, certain medicinal plants and grapes.

Despite silicon being the second most abundant element on earth and soils containing huge amounts, the vast majority is insoluble in water and so only very small amounts are available for root uptake. Sometimes deficiencies in susceptible crops occur. Similarly insufficient levels of silicon are often found in soil-less growing systems such as hydroponics and where artificial (eg peat or coir) growing media is used. Again sensitive crops can suffer detrimental effects.

The role of silicon in plants is mainly protective and where levels are inadequate then tolerance to fungal diseases such as powdery mildew (*Erysiph* spp) is decreased. Very specifically, Roses deficient in silicon are more prone to black spot (*Diplocarpon rosae*) attack.

Adequate silicon improves the structural strength of the plant and helps the plant to combat other stress. This in turn results in improved plant health, vigour quality and yields.

Chemical/physical data

Typical analysis **(w/v):** Silicon dioxide (SiO₂) soluble in water 48.7%(Si: 22.76%)
Potassium oxide (K₂O) soluble in water 33.8% (K: 28.0%)

(w/w): Silicon dioxide (SiO₂) soluble in water 30.4% (Si: 14.2%)
Potassium oxide (K₂O) soluble in water 21.1% (K: 17.5%)

Appearance: Free flowing liquid.

Density: 1.6 g/ml (at 20°C)

Solubility in water: Fully miscible with water.

Directions for use

Application rates: **Foliar, via knapsack sprayer:** 20 ml per 10 litres of water and spray to run-off.

Via irrigation system: To achieve a concentration of 1ppm Si add 4.3 mls of Signal per 1,000 litres of irrigation water.

Directions: Start foliar applications early in the life of the crop as soon as there is sufficient foliage to absorb the spray. Repeat at 2 week intervals up to harvest. Apply alone, not in tank mix.

Note use of Signal will reduce soil/irrigation water acidity.

General information

Packaging: 10 litre jerry can and 200 litre drums

**Harmonised
Tariff No:** 28399010

Technical service: For further information, assistance and access to the Solufeed Advisory Service, please contact Solufeed at the address below.

Precautions

Because of its high density packs of Signal are unexpectedly heavy and care should be taken when lifting.

Wear eye shields, gloves and overalls when handling the concentrate.

Protect from frost.

Detailed health and safety information may be found on the relevant Material Safety Data Sheet (MSDS) available on request from the address below.

Important

The information in this document has been prepared carefully and is provided in good faith. The application, use and processing of any material together with regulatory compliance is the absolute responsibility of the Buyer. All technical information or other advice provided by the Seller in any form is given without warranty to the full extent provided by law.

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