



**PRODUCT INFO
& DATASHEET**

SICO-POTASNIT PRILLS
POTASSIUM NITRATE (KNO₃)
 13-0-46 (Prills)
 EC Origin

ANALYSIS	UNIT	TYPICAL	MIN.
N-Total	w/w %	13.2	13.0
NH ₄ -N	w/w %	None	
NO ₃ -N	w/w %	13.2	13.0
K	w/w %	38.2	37.9
K ₂ O	w/w %	46.0	45.6
Insol. in water	w/w %	0.05	
Bulk density	Kg/L	1.	
pH (10% solution)		9.0 - 11.0	
Moisture (1h, 105°C)	w/w %	0.04	
Toxic substances		N.D.	
Perchlorate		N.D.	
Hypochlorite		N.D.	
Nitrite		N.D.	
Heavy metals		N.D.	
Angle of repose		28°+/-2°	
Hardness	Kg F	2.0	

N.D. = Not Detected

MEAN SCREEN ANALYSIS, % Cumulative:

PRILLS

mm	U.S. mesh	% on sieve
3.36	16	3
2.38	8	40
2.00	10	68
1.41	14	97
1.00	18	99.5

SOLUBILITY

Potassium Nitrate solubility increases rapidly with the raise of temperature. Its dissolution is endothermic. Solubility of Potassium Nitrate at various water temperatures is as follows:

°C	°F	KNO ₃ g/100 g of water
0	32	13.3
10	50	21.9
20	68	27.9
50	122	85.5
70	158	138.0
100	212	246.0

Any information in this publication is believed to be accurate and is given in good faith, but is for the customer to satisfy himself of the suitability for his own particular purpose. No representation, warranty or guarantee is made to its accuracy, reliability or completeness.

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FILTRATION

To avoid possible clogging of nozzles by insolubles, filters are recommended to be used.

SOME THERMAL CHARACTERISTICS OF SOLID KNO₃:

Melting Point °C	333
Decomposition temp. °C	ca. 400
Specific Heat at 25°C, Cals/°C-g	0.22
Heat of Fusion, Kcals/kg	28
Heat of solution, Kcals/kg	- 85

HYGROSCOPICITY

Hygroscopicity of Potassium Nitrate in comparison to other fertilisers, is among the lowest, which is highly favourable for its storage and blending characteristics.

Hygroscopicity Number at 30°C (86°F) of some fertiliser materials is as follows:

Calcium Nitrate	53.3
Ammonium Nitrate	40.6
Sodium Nitrate	27.6
Urea	27.5
Ammonium Sulphate	20.8
Potassium Chloride	16.0
Potassium Nitrate	9.5

A low number equals to a low tendency to absorb moisture from the atmosphere. Low product moisture improves storage and blending characteristics.

STABILITY

Potassium Nitrate is stable at temperature below ca. 400°C (750°F). It is not combustible and does not explode. When intimately mixed with organic materials, the combustibility of the externally ignited mixture may be enhanced. The effect of potassium nitrate is similar to that of sodium nitrate, and can never be compared to ammonium nitrate.

SHIPMENT

Bulk or bagged in 50 kg woven polypropylene polyethylene bags or 25 kg polyethylene bags.

USES

Direct application, NPK and NK granulation or ammoniation, NPK and NK bulk blending, liquid and suspension fertilisers, fertigation (sprinkler, mini sprinklers and drip irrigation), foliar sprays, foliar NPK fertilisers, starter and transplant solutions, winter hardener, winter dormancy breaking sprays, flowering inducement sprays.

CROPS

Flowers, vegetables, strawberries, potted plants, soilless culture (indoor and outdoor), tobacco, _potatoes, fruit trees, grapes, citrus, pineapples, cotton, bananas, mango, olives, home gardens, lawns.

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SICO FERTILISERS
EVERY TIME THE *right* SOLUTION