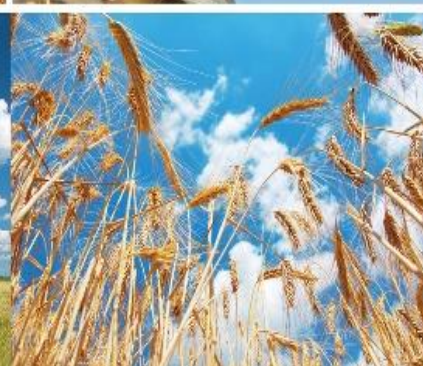




PINNACLE PARTNERS
FERTILIZER PRODUCTS





Nurturing Growth & Prosperity

Pinnacle Partners is a trusted supplier to private, corporate and government clients around the world. We are a group of synergistic companies strategically aligned to provide our clients with exceptional service and support.

PINNACLE PARTNERS FERTILIZER PRODUCTS

UREA

Physical & Chemical Characteristics

Chemical Name:	UREA
Category	Fertilizers
Presentation	Granulated solid in bags of 50kg and/or Bulk Bags of 1,000 kg
Formula of Relation	$\text{CO}(\text{NH}_2)_2$
	46-0-0

DETAIL OF PHYSICOCHEMICAL PROPERTIES

Nitrogen	46% Minimum
Humidity	0.45% Maximum
Biuret	1% Maximum
Formaldehyde	0.55% Maximum
Free Ammonia	100 ppm Max
Size	90% Between 2 to 4 mm

ORGANOLEPTIC CHARACTERISTICS

Color	White
Aspect	Solid / Round in form

USES IDENTIFIED

Urea is an organic compound with chemical formula $\text{CO}(\text{NH}_2)_2$ used as a fertilizer in the production of annual crops, vegetables, fruits trees, pastures, and ornamentals. It allows to increase yield and generate higher economic income for the farmer, encourages food productions and contributes to food security. The main function of Urea fertilizer is to provide the plant with nitrogen to promote green leafy growth and make the plants look lush. Urea also aids the photosynthesis process of plants. Since urea fertilizer can provide only nitrogen and not phosphorus or potassium, its primarily used for bloom growth.





POTASSIUM CHLORIDE

Physical & Chemical Characteristics

Type	Standard
Chemical Name:	Potassium Chloride (Potash)
Category	Fertilizers
Presentation	Granulated solid in bags of 50kg and/or Bulk Bags of 1,000 kg
Formula of Relation	N – P – K 0 – 0 – 60
	Mg – S – Ca 0 – 0 – 0
DETAIL OF PHYSICOCHEMICAL PROPERTIES	
Total Potassium K20 (K)	60% Potassium Oxide (w/w)
Magnesium (Mg)	≤ 0.6
Sulfur (S)	--
As Sulfate ion	--
Humidity	≤ 1 %
Granulometry	≤ 2.0 mm
Solubility [g/100g]	32.0 – 34.2
pH in 10% solution	5.3 – 8.8
Density [g/cm³]	1.93 – 2.30
Insoluble Solids	≤ 0.1 %
ORGANOLEPTIC CHARACTERISTICS	
Color	Variability according to scale 1-3 
Taste	Strong Saline Taste
Aspect	Solid in the form of crystals
Smell	Oderless

Type	1
Chemical Name:	Potassium Chloride (Potash)
Category	Fertilizers
Presentation	Granulated solid in bags of 50kg and/or Bulk Bags of 1,000 kg
Formula of Relation	N – P – K 0 – 0 – 60
	Mg – S – Ca 0.6 – 5 – 0
DETAIL OF PHYSICOCHEMICAL PROPERTIES	
Total Potassium K20 (K)	58 - 60% Potassium Oxide (w/w)
Magnesium (Mg)	≤ 0.6%
Sulfur (S)	2.0 – 5.0 %
As Sulfate ion	7 – 15%
Humidity	≤ 1 %
Granulometry	≤ 2.0 mm
Solubility [g/100g]	16 – 25
pH in 10% solution	6.4 – 8.8
Density [g/cm³]	2.00 – 2.50
Insoluble Solids	≤ 0.1 %
ORGANOLEPTIC CHARACTERISTICS	
Color	Variability according to scale 1-3 
Taste	Strong Saline Taste
Aspect	Solid in the form of crystals
Smell	Oderless

USES IDENTIFIED: A fertilizer presents nutrients that are assimilated by plants, this is added to the soil to maintain, supply, and increase certain essential elements necessary for plant nutrition and growth. Potassium (K) is an essential nutrient along with phosphorus (P) and nitrogen (N) being primary nutrients. Sulfur (S), Magnesium (Mg) and Calcium (Ca) are secondary nutrients applied in all crops. K+ is absorbed ionically by the roots. In the plant does not form organic compounds. It is fundamental for protein synthesis, helps regulate water and ionic balance. It improves plant disease resistance and helps tolerate periods of drought. It improves the quality of the fruit delivering aroma, color and helps withstand the adversity of the climatic weather.



POTASSIUM CHLORIDE

Physical & Chemical Characteristics

Type	2
Chemical Name:	Potassium Chloride (Potash)
Category	Fertilizers
Presentation	Granulated solid in bags of 50kg and/or Bulk Bags of 1,000 kg
Formula of Relation	N – P – K 0 – 0 – 57.99
	Mg – S – Ca 0.6 – 5 – 0
DETAIL OF PHYSICOCHEMICAL PROPERTIES	
Total Potassium K20 (K)	56 – 57.99% Potassium Oxide (w/w)
Magnesium (Mg)	0.5 – 1.1%
Sulfur (S)	4.0 – 7.0 %
As Sulfate ion	12 – 20%
Humidity	≤ 1.5 %
Granulometry	≤ 2.0 mm
Solubility [g/100g]	15 – 21
pH in 10% solution	6.4 – 8.8
Density [g/cm³]	2.00 – 2.50
Insoluble Solids	≤ 0.1 %
ORGANOLEPTIC CHARACTERISTICS	
Color	Variability according to scale 1-3 
Taste	Strong Saline Taste
Aspect	Solid in the form of crystals
Smell	Oderless

Type	4
Chemical Name:	Potassium Chloride (Potash)
Category	Fertilizers
Presentation	Granulated solid in bags of 50kg and/or Bulk Bags of 1,000 kg
Formula of Relation	N – P – K 0 – 0 – 48.5
	Mg – S – Ca 7 – 14 – 0
DETAIL OF PHYSICOCHEMICAL PROPERTIES	
Total Potassium K20 (K)	≥ 32 < 48.5% Potassium Oxide (w/w)
Magnesium (Mg)	≥ 5 - 7%
Sodium (On)	≤ 0.5% ± 0.5%
Sulfur (S)	≤ 6 – 14 %
As Sulfate ion	≤ 18 – 42%
Humidity	≤ 1.5 %
Granulometry	≤ 3 mm
Solubility [g/100g]	15 – 23
pH in 10% solution	-
Density [g/cm³]	-
Insoluble Solids	≤ 0.1 %
ORGANOLEPTIC CHARACTERISTICS	
Color	Variability according to scale 1-3 
Taste	Strong Saline Taste
Aspect	Solid in the form of crystals
Smell	Oderless



Pinnacle Partners Global Logistics Solutions



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