Product information

POTASSIUM HYDROGEN CARBONATE

Technical Grade

GENERAL INFORMATION

Chemical Identity	Potassium Hydrogen Carbonate Potassium Bicarbonate $KHCO_3$
CAS No.	298-14-6
EINECS No.	206-059-0
Molar Mass	100.2 g/mol
Appearance	white crystals

PHYSICAL PROPERTIES

Property	Value (approx.)	Unit
Density (20 °C)	2.17	g/cm^3
Bulk density (20 °C)	1.20 - 1.35	g/cm^3
Decomposition temperature	198	°C
Solubility in 100 g water (20 °C)	33	g
Solubility in 100 g water (60 °C)	67	g
Particles > 500 µm (Sieving)	max. 5	%
Particles < 100 µm (Sieving)	10 - 20	%

PACKAGING

- 25 kg PE bags on pallets
- Big bags on pallets
- Special packaging on request

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STORAGE AND HANDLING

For consistent product quality, Potassium Hydrogen Carbonate is recommended to be stored under specific conditions: (i) tightly sealed (packaging), (ii) dry (exclusion of humidity) and (iii) at mild temperature.

Storage under tightly sealed and dry conditions is very important due to the hygroscopic property of Potassium Hydrogen Carbonate. When exposed to humidity the material will absorb water molecules from the surrounding environment and even by diffusion through a tightly sealed foil packaging. This effect leads to an increase of water content over time causing a slight decrease of the total alkalinity. The water uptake can lead to caking effects influencing the flowability of the product. However, the chemical composition remains unchanged as no chemical reaction is taking place.

The recommended storage temperature is a constant temperature of around 20 °C (68 °F). At least at temperatures above 100 °C, chemical decomposition of the product will start under the release of carbon dioxide. At 198 °C Potassium Hydrogen Carbonate is completely chemically decomposed.

To be aware of the current product quality under recommended storage conditions and irrespective of the contractual warranty period, a retest of total alkalinity and water content is suggested prior to use - in particular if Potassium Hydrogen Carbonate has been stored under the recommended storage conditions for a period of more than 2 years.

Please feel free to contact your customer service representative in case of additional questions regarding storage conditions and stability.

CERTIFICATES AND REGULATORY AFFAIRS

- ISO 9001
- ISO 14001
- HACCP
- Kosher & Halal
- Vegan, no allergens

The status per country can be viewed online at www.potassium-derivatives.com.

SAFETY AND ENVIRONMENT

Potassium Hydrogen Carbonate has numerous common applications e.g. in food, pharma and agriculture. According to EC chemicals legislation, it is not classified as a hazardous substance. However, the information provided in the Safety Data Sheet concerning safety and handling must be observed.

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CHEMICAL PROPERTIES

Property	Value	Unit	Method
Total alkalinity as $KHCO_3$	99 - 102	%	Titration
Potassium carbonate	≤ 3.5	%	Titration
Loss on drying	≤ 0.2	%	Gravimetry
Sodium	≤ 0.025	%	AES
Water-insoluble substances	≤ 50	mg/kg	Gravimetry
Sulfate	≤ 20	mg/kg	IC
Ammonium	≤ 20	mg/kg	Photometry
Calcium	≤ 20	mg/kg	ICP - OES
Chloride	≤ 10	mg/kg	Turbidity
Iron	≤ 10	mg/kg	ICP - OES
Heavy metals as lead	≤ 3	mg/kg	ASV
Arsenic	≤ 1	mg/kg	ICP - OES
Mercury	≤ 1	mg/kg	AAS
Lead	≤ 1	mg/kg	ASV

All chemical and physical properties provided are no specification items and for informational purposes only.

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