

CALCIUM ACETATE

$C_4H_6CaO_4 \cdot xH_2O$ where x is ≤ 0.5

Calcium Acetate is available as white powder or agglomerate. These two versions are chemically identical and differ only in physical form. The agglomerate offers the properties on non-dustiness, improved wettability, higher reactivity, higher bulk density and improved free-flowability.

COMMERCIAL INFORMATION

Calcium Acetate is available in pure and pharmaceutical grades

Specifications

Grade		Pure	Pharmaceutical
Appearance		white powder or agglomerate	white powder or agglomerate
Assay on dried material			
As calcium acetate	% mass min.	99.0	99.5
Water	% mass max.	6	6
Insoluble in water	% mass max.	0.05	0.01
Chloride (Cl)	% mass max.	0.05	0.005
Sulphate (SO ₄)	% mass max.	0.05	0.04
Iron (Fe)	ppm max.	10	5
Arsenic (As)	ppm max.	2	2
Heavy metals (as Pb)	ppm max.	5	2
Lead	ppm max.	5	2
Mercury	ppm max.	1	1
Oxidisable.Imp. (as H.Form)	ppm max.	1000	1000
Alkalimetals and Magnesium (as SO ₄)	% mass max.		0.3
pH of 1% solution		7.0 – 8.0	7.0 – 8.0

Pharmaceutical grade conforms to: BP 1980
 USP 21 (reagent spec)

Both grades conform to: US Food chemicals codex 5
 the criteria of purity of the EC (E263)
 WHO 1964 (spec for identity and purity food additives)

On request: USP 28 and BP 2004.

Method of analyses

Details of test methods can be supplied on request

Packing

Calcium Acetate is supplied in polyethylene lined paper bags

Storage and handling

Calcium Acetate should be stored and handled in its original packing or in suitable sealed containers and kept in a clean dry place.

Under normal conditions of use, Calcium Acetate does not present any undue health hazard. Precautions should be taken to prevent entry in the eyes and prolonged or repeated skin contact with the solid or its solutions. Exposure to the dust at high concentrations should be prevented by provision of suitable ventilation.

First aid.

Eye contact: In the event of eye contact occurring, immediately irrigate with copious quantities of clean water, holding the eye open if necessary. Obtain medical attention.

Skin contact: Wash with water, remove contaminated clothing and wash before re-use.

Ingestion: Wash mouth with water. Obtain medical attention.

Fire hazard

Calcium Acetate presents little fire hazard

Applications.

Calcium Acetate is used in a wide variety of different applications. Calcium Acetate is an effective growth inhibitor of certain bacteria. It is widely employed in bread to prevent rope formation thus extending the shelf life of the product. High moisture content of bread encourages the growth of bacteria causing rope. These bacteria are heat resistant and survive at temperatures attained during the baking process. This means that conditions conducive to rope development, adequate measures must be taken to prevent rope formation. Calcium Acetate is an effective anti-rope agent and does not effect the fermentation process, baking results or taste of the bread. Concentration levels of 0.2 – 0.5% based on the amount of flour is recommended.

Calcium Acetate also finds its application in the production of resins for printing inks. Calcium Acetate can be used to increase the milk fat production of dairy cows. Furthermore, it is used in Calcium soap manufacturing, in the production of high temperature lubricating grease and as catalyst for polyester production.

PROPERTIES**Physical properties**

Molecular mass (anhydrous)		158.17
Flash point	C°	>250 (decompose)
Solubility in water: at 0°	g/100 ml	37.4
at 25°	g/100 ml	35.3
at 100°	g/100 ml	29.7

Physiological properties

The solid or solutions may cause irritation to the eye. Prolonged or repeated skin contact may cause slight irritation. Exposure to the dust at high concentrations or ingestion may cause irritation to the nose, throat and upper respiratory tract.

LIABILITY

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CERTIFICATION

Kemira ChemSolutions b.v. has an ongoing quality system certified according ISO 9001:2000

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