

Guanidine Carbonate, technical mixture

Empirical Formula: $C_3H_{12}N_6O_3$

Synonyms: Bisguanidinium carbonate, Carbonic acid, compound with guanidine (2:1)

CAS No.: 593-85-1

EINECS.No: 209-813-7

Molecular mass: 180.17 kg/kmol

Specification

Test Methods

Appearance:	White to slightly yellowish crystalline powder	301e
Assay:	> 99% (HPLC)	311e
Loss on drying:	max. 0,5%	303e
Sulfated Ash:	max. 0,1%	307e
Appearance of solution (25 g / 75 ml water): (visual examination)	clear to clear with traces of insoluble material	302e
Heavy metals:	max. 10 mg/kg	313e
Melamine content:	max. 1%	312e

Above LAT Nitrogen analysis methods are available upon request.

Physical properties

Density (20°C / 68°F):	1.251 kg/m ³
Bulk density:	abt. 500 kg/m ³
Melting Point:	Start of melting at 190°C (under decomposition)
Solubility in water:	(450 g/l (20°C / 68°F))

Application

Guanidine carbonate (GC) technical mixture consists mainly of a strongly alkaline, organic salt and small impurities of Melamine. Together with its derivatives, Guanidine carbonate is particularly used in the production of plastics, resins, flame retardants, photochemicals, disinfectants, and in the production of airbag inflators (guanidine nitrate).

Packaging

BB 1000kg

Storage and handling

- Store in dry areas only.
- Guanidine carbonate absorbs humidity from the air.
- Guanidine carbonate tends to form blocks when stored longer than two months.

Transport classification: RID/ADR: no restriction

Tarif NO: 2925 2900

Safety

If swallowed, GC is harmful. Causes serious eye damage. Do not breathe dust. Wear eye/face protection. GC is not classified as hazardous to the environment but the release into the environment (entering drains) needs to be prevented. For further information please refer to the Safety Data Sheet, which is available on the LAT Nitrogen homepage or can be sent on request.

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