

Identification of the substance: Calcium carbonate

Substance name	Calcium carbonate
EC	207-439-9
CAS	471-34-1
IUPAC	Calcium carbonate
Molecular formula	CH ₂ O ₃ Ca
Forms in the market	Powder

Physical and chemical properties

Shape	Cubic
Size (nm)	80 nm (average)

Toxicological information

Inhalation acute toxicity	No data
Dermal acute toxicity	LD50 = > 2000 mg/kg bw (Nontoxic)
Oral acute toxicity	NOAEL = 1000 mg/kg bw (Nontoxic)
Genotoxicity	Negative
Cytotoxicity	Negative

Ecotoxicological information

Freshwater Acute toxicity (Daphnia)	EC50 = > 1000 mg/l (Nontoxic) LC50 = 159 mg/l (Practically nontoxic)
Freshwater Acute toxicity (Alga)	EC50 = > 100 mg/l (Practically nontoxic) EC50 = > 14 mg/l (Toxic)
Freshwater Acute toxicity (Fish)	LC50 = > 100% v/v (Nontoxic)
Soil invertebrates (worms)	EC50 value >> 0,07 g/ml (Nontoxic)
BAF-Bioaccumulation	No data

Application

Industrial uses	Plastic Additives
Improved properties	Rheological properties Tensile properties Lower costs Strength Thermal properties Hardness
Polymeric matrix	Polyethylene (PE), polypropylene (PP), polyethylene terephthalate (PET), poly(lactic acid) (PLA)