



TECHNICAL INFORMATION

Reducing Agents

BRUGGOLITE[®] CH

Reducing agent for titanium dioxide production via the sulphate process

Chemical Characterization

BRUGGOLITE[®] CH is the sodium salt of a sulfinic acid, stabilized for application under acidic conditions.

Properties

Appearance	White, crystalline substance
Melting point	app. 65°C
Solubility in water	680 g/l (20°C)
Alkaline resistance	Good
Acid resistance	Decomposition
Odour	slight product specific odour

General Description

BRUGGOLITE[®]CH is a reducing agent for the bleaching of titanium dioxide produced by the sulfate process. It is applied after the precipitation of Titaniumdioxidehydrate and reduces the heavy metal impurities, being present in higher oxidation states (e.g. Iron, Manganese, Vanadium or Chromium). In addition to the transition metals also part of the tetravalent Titanium is reduced to trivalent Titanium. This prevents the re-oxidation of the reduced transition metals and significantly increases the whiteness.

Compared to the application of reducing metals like Zinc or Aluminum BRUGGOLITE[®]CH provides a number of advantages:

- Optimal process-steering and control due to simple handling and convenient dosing
- No additional metal impurities like Aluminum or Zinc
- Increased process safety due to no generation of hydrogen
- Lower consumption of sulfuric acid

Application

Normally a dosage of 0,5 – 1 g BRUGGOLITE[®]CH per 1 kg of Titaniumdioxide is recommended. Die exact dosage can only be determined by respective trials, since it depends on the applied conditions and raw material qualities.

Normally BRUGGOLITE[®]CH is added to the slurry as 15% solution. The optimal reaction time is normally between 60 and 120 minutes. For best results access of oxygen to the reaction should be avoided. The reaction temperature should be between 60 – 80°C.

Health and Safety Data

Safety data and information can be derived from the current Material Safety Data Sheet

Package and Storage

Standard packing: 25 kg polyethylen bags

If properly stored (25°C/dry) the shelf life of BRUGGOLITE® CH is at least 12 months. Storage together with oxidizing substances or with acids is not permitted.

Technical Information Bruggolite CH

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