



Special Aluminum Hydroxide Al(OH)₃

1. Product Overview

The chemical formula of aluminum hydroxide is Al(OH)₃, also known as alumina trihydrate 2Al₂O₃·3H₂O. It is an inorganic flame retardant suitable for various plastics. During heating, aluminum hydroxide can release crystal water, which will absorb a large amount of heat. At the same time, the water vapor generated by the reaction can dilute the combustible gas, slow down the combustion speed, and play a flame retardant role.

The newly generated alumina Al₂O₃ is also active, which can catalyze the thermal crosslinking of polymers, and form a carbonized layer on its surface. The carbonized layer can reduce the heat and mass transfer effects of combustion, thereby further achieving the flame retardant effect.

2. Product Specifications

	Al(OH) ₃	99.811
Chemical Composition	SiO ₂	0.031
	Fe ₂ O ₃	0.005
	Na ₂ O	0.153
	Loss on Ignition	34.56
	Moisture	0.20
Bulk Density	g/cm ³	0.34
Tap Density	g/cm ³	0.57
Oil Absorption	mL/100g	34
Specific Surface Area	m ² /g	4.57
Conductivity	us/cm	36
Particle Size μm	D[4.3]	2.147
	D(0.5)	1.990
	D(0.9)	4.288

*Execution Approval: Q/CHALCO ZZ18B1-2021

3. Application Fields

- Flame retardant filler for polyethylene, epoxy resin, polyester resin and other products
- Artificial marble filler
- Toothpaste filler
- Catalyst and carrier
- Artificial agate etc.