



## Product Data Sheet

### ALUMINA HYDRATE

Alumina hydrate also known as hydrated alumina or aluminum hydroxide  $[Al(OH)_3$  or  $Al_2O_3 \cdot nH_2O$ ], is a white non-combustible powder used as flame retardant and filler in cosmetics, plastics, inks and ceramics

S. NO.	PARAMETERS	VALUE	
1	Product Code		
2	Chemical Formula		
3	Appearance		
4	Physical Properties	Typical	Range
	*LOI(110-1000 Deg.C]	34-36	36 max
	*Moisture (5)	3-6	8 max
	Granulometry		
	*-45 Micron (%)	3-6	7 max
	Chemical Properties		
	Al <sub>2</sub> O <sub>3</sub> (%)	65+/-0.5	64.5 min
	Na <sub>2</sub> O(%) Total	0.23 – 0.30	0.33 max
	Fe <sub>2</sub> O <sub>3</sub>	0.005 – 0.008	0.016 max
	SiO <sub>2</sub> [%]	0.007 – 0.010	0.016 max
	CaO [%]	0.026 – 0.030	0.033 max
	Na <sub>2</sub> O [%] Soluble	0.015 – 0.025	0.030 max
	Hydrate content [%]	99.0	98.5 min

### Usage:

- **Flame Retardant:** Acts as water repellent and flame retardant material.
- **Filler:** Used as a filler in various products, including solid surfaces, cosmetics, plastics, inks, ceramics and detergents.
- **Ceramics:** Improves suspension and viscosity in glazes, enhancing texture and controlling drying properties
- **Paper Coating :** Used as a coating material for paper.
- **Solid Surface Materials :** Can make up a significant portion [up to 70%] of solid surface products.

### Key properties:

- **Non-combustible :** Alumina hydrate does not burn.
- **Adhesive Qualities :** Exhibits good adhesive properties.
- **High melting point:** Possesses a high melting temperature.
- **Opacity:** Promotes the opacity of enamels.