



## ZINC HYDROXYSTANNATE & ZINC STANNATE

Zinc Hydroxystannate and Zinc Stannate are active smoke suppressants as well as flame-retardants. Their superior performance is because of their dual phase mechanism. In addition to exhibiting vapor phase action, similar to Antimony Trioxide, they also exhibit condensed phase action during which they act as excellent char promoters. The condensed phase action of Zinc Hydroxystannate and Zinc Stannate enhances the formation of a thermally stable carbonaceous layer at the expense of aromatic, volatile and flammable products. These products exhibit synergy with Zinc Borate, Ammonium Octamolybdate and Antimony Trioxide.

Zinc Hydroxystannate and Zinc Stannate are effective in halogen free and halogen containing systems. Although generally, there is little difference in the effectiveness of Zinc Hydroxystannate and Zinc Stannate, the latter is the preferred additive for polymers that are processed at temperatures above 200°C.

Ever since 1996, the experience gained in the synthesis of these products has enabled us to transform these specialty chemicals into high performance chemicals. Zinc Hydroxystannate and Zinc Stannate produced by us are of very fine particle size that provides high surface area. The particles have organophilic surface that enables them to get easily disperse in polymer matrix.

	Zinc Hydroxystannate	Zinc Stannate
Chemical Formula	ZHS / ZnSn(OH) <sub>6</sub> ZnO.SnO <sub>3</sub> H <sub>2</sub> O	ZnSnO <sub>3</sub>
Physical Form	White powder	White powder
Median Particle Size, D <sub>50</sub>	1 µm	1 µm
Particle Size, D <sub>90</sub>	10 µm	10 µm
Surface Area	7 cm <sup>2</sup> /gm	7 cm <sup>2</sup> /gm
Specific Gravity	3.3	3.9
Bulk Density	0.6 gm/cm <sup>3</sup>	0.8 gm/cm <sup>3</sup>
Refractive Index	1.9	1.9
pH, (5% aqueous slurry)	10	10
Free Moisture	0.5 %	0.5 %
Tin	41.5 - 43 %	51 - 52 %
Zinc	22 - 24 %	28 - 29 %
Loss on Ignition	17 - 19 %	2 %
Decomposition Temperature	200 °C	400 °C

Material Safety Data Sheet is available on request. Kindly contact our product team at [info@medshieldindia.net](mailto:info@medshieldindia.net)