

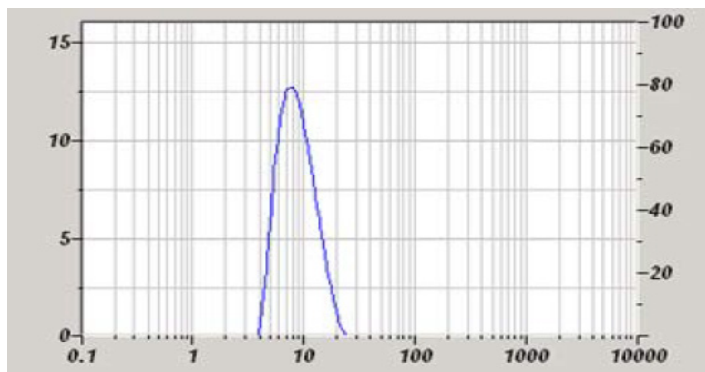
Particle Size Analysis of Antimony Trioxide

Introduction

Antimony trioxide, also called antimony white, has the formula Sb_2O_3 with a structure dependant on the temperature. It is used as a flame retardant, pigment, and catalyst. Antimony trioxide is mainly produced via the smelting of stibnite ore, which is oxidized to crude Sb_2O_3 using furnaces operating at approximately 850 to 1,000 °C.

Analytical Test Method

Measurement equipment:	SZ-100
Measurement temperature:	25 °C
Dispersion medium:	ethanol
Algorithm:	polydisperse, standard
Angle:	90°
Measurement duration:	90 seconds
Result format:	intensity distribution



Example data

Z-average: 8.6 nm

Results

This sample easily dispersed in ethanol and did not require additional sample preparation. The repeatability was excellent with a mean Z-average of 8.6 nm with a standard deviation of 0.37 nm.