

SMOKE DEFENSE SERIES

SDAOM

Typical Properties

Formula	$(\text{NH}_4)_4\text{M}_0\text{O}_{26}$
Analysis (theoretical)	M ₀ 61.10% NH ₃ 5.43%
Specific gravity	3.18
Bulk density(lb/ft ³)	35
Median particle size (microns)	1.5-2.5
99% less than (microns)	15
Solubility in water (g/100ml)	5
Decomposition temp. (°F)	>480
Loss on ignition (%)	8.5

SDAOM ammonium octamolybdate is an ultra-fine white to off-white powder of exceptionally high purity used as a flame retardant synergist and smoke suppressant in polymers.

NBS Smoke Chamber Data (flaming mode)

Material was tested at 15 parts by weight in a PVC plenum formulation.

Test	ADM
Optical density	228, 294
Time to max smoke (sec)	523, 440
Avg. optical density +/- 95%*	261 +/- 66
Avg. time to max smoke +/- 95%*	481 +/- 248
Limiting oxygen index (%)	41.5 +/- 0.8

*95% confidence limits - 2x pooled standard deviation calculated from a set of duplicate measurements on several similar formulations containing different smoke suppressants.

APPLICATIONS: SDAOM is available to help formulators achieve reduced levels of smoke with high levels of flame retardancy in rigid and flexible PVC, alloys and adhesives. Specific applications have also been developed in urethanes, elastomers, and other polymers. Products made with SDAOM are used in transportation, construction, and wire & cable markets, where stringent smoke and flammability standards, such as UL 910 and ASTM #E-84, must be met. Typical uses include jacketing and insulation for plenum and riser; profiles, wall coverings and upholstery for high-risk buildings; and extrusions for subways and aircraft interiors.

HEALTH AND SAFETY: Refer to the Safety Data Sheet

PACKAGING: 50 lb paper bags; pallet weight 2,500 lbs. or 2000 lb bulk bags.

December 2019