

MOLYSULFIDE®
Technical Grade, Technical Fine Grade
Super Fine Grade

DESCRIPTION

Molysulfide® is a lubricant grade of molybdenum disulfide (MoS₂) available in three grades – Technical, Technical Fine, and Super Fine. Typical MoS₂ content (calculated average) is 98%.

CHEMICAL SPECIFICATIONS

	Maximum % by wt Technical	Maximum % by wt Technical Fine	Maximum % by wt Super Fine
Acid Insoluble	0.50	0.50	0.50
Iron	0.25	0.25	0.25
Molybdenum Trioxide	0.05	0.05	0.15
Water	0.02	0.05	0.15
Oil	0.05	0.40	0.40
Carbon	1.50	1.50	1.50
Acid Number*	0.05	0.25	3.0

* Acid number is determined at time of production. Prolonged storage will result in slight oxidation, which will produce an increase in acid number. The smaller particle size grades are more susceptible to surface oxidation. Acid number is expressed as an absolute value and is the mg of KOH required to neutralize the acid in a one-gram sample.

PARTICLE SIZE SPECIFICATIONS BY Microtrac®:

Molysulfide® Grade	D50**	D99 (Maximum)**
Technical	16.0 – 30.0 µm	190 µm
Technical Fine	4.0 – 6.0 µm	36.0 µm
Super Fine	0.9 – 1.6 µm	7.0 µm

** L&N Microtrac®

TYPICAL PARTICLE SIZE BY FISHER SUB-SIEVE SIZER AND BULK DENSITY:

Molysulfide® Grade	Fisher Number, µm	Bulk Density (Scott)
Technical	3 to 4	1.3 g/cm ³
Technical Fine	0.65 to 0.80	0.4 g/cm ³
Super Fine	0.40 to 0.45	0.3 g/cm ³

PACKAGING

Molysulfide® Grade	US Packaging Fiber Drum	Units per pallet	Pallet weight
Technical	200 lb net	9	1800 lb net
Technical Fine	250 lb net	4	1000 lb net
Super Fine	200 lb net	4	800 lb net
Molysulfide® Grade	Metric Packaging	Units per pallet	Pallet weight
Technical	100 kg Steel drum (lined)	9	900 kg
Technical Fine	100 kg Steel drum (lined)	4	400 kg
Technical Fine	25 kg Valve sack	40	1000 kg
Super Fine	75 kg Steel drum (lined)	4	300 kg

CAS No: 1317-33-5 / EINECS No: 2152639