CLAIMS

[Claim 1]

A lubricant comprising molybdenum sulfide particles, wherein

the molybdenum sulfide particles contain molybdenum disulfide having a 3R crystal structure,

the molybdenum sulfide particles have a specific surface area of 10 m^2/g or more, the specific surface area being measured by a BET method,

primary particles of the molybdenum sulfide particles have a ribbon shape or a sheet shape,

the shape of 50 primary particles of the molybdenum sulfide has a size in a range of length (vertical) × width (horizontal) = 50 nm to 1,000 nm × 3 nm to 100 nm on average, and

the molybdenum sulfide particles have a median diameter D_{50} determined by the dynamic light scattering type particle diameter distribution measuring device of 400 nm or less.

[Claim 2]

The lubricant according to claim 1, wherein

the molybdenum sulfide particles contain molybdenum disulfide having a 2H crystal structure and a 3R crystal structure.

[Claim 3]

The lubricant according to claim 2, wherein

in a spectrum of the molybdenum sulfide particles obtained from powder X-ray diffraction (XRD) using Cu-Kα rays as an X-ray source, both a peak in a vicinity of 39.5° and a peak in a vicinity of 49.5° include a synthetic peak of the 2H crystal structure and the 3R crystal structure, and a half width is 1° or more.

[Claim 4]

The lubricant according to any one of claims 1 to 3, wherein

the specific surface area of the molybdenum sulfide particles is 30 m^2/g to 300 m^2/g, the specific surface area being measured by a BET method.

[Claim 5]

The lubricant according to any one of claims 1 to 4, wherein

the molybdenum sulfide particles have a median diameter D_{50} of 10 nm to 400 nm, the median diameter D_{50} being determined by a dynamic light scattering type particle

diameter distribution measuring device.

[Claim 6]

The lubricant according to any one of claims 1 to 5, wherein

in a radial distribution function of the molybdenum sulfide particles obtained from an extended X-ray absorption fine structure (EXAFS) spectrum of a K absorption edge of molybdenum, a ratio (I/II) of peak intensity I caused by Mo-S to peak intensity II caused by Mo-Mo is more than 1.0

[Claim 7]

A lubricating composition comprising:

the lubricant according to any one of claims 1 to 6; and

a base oil which is a mineral oil, a synthetic oil, or a partially synthetic oil.

[Claim 8]

The lubricating composition according to claim 7, wherein

the molybdenum sulfide particles constituting the lubricant are contained in an amount of 0.0001% by mass to 50% by mass with respect to 100% by mass of the total mass of the lubricating composition.