TECHNICAL SPECIFICATION

EAST HARBOUR GROUP

ALUMINUM POWDER

1. Basic Information

Product Name	Aluminum (Al) Nanopowder/Nanoparticles, Metal Basis
Structural Formula	
Molecular Formula	Al
CAS No.	7429-90-5
EINECS	231-072-3
Size	110 nm
Purity	99.9+%

2. Specifications

Characteristics	Specification
Bulk Density (g/cm^3)	0.22
True Density (g/cm^3)	2.7
Colour	Black
Shape	Spherical
Crystal Structure	Cubic
Average Particle Size (nm)	110
Specific Surface Area (m^2/g)	15-20

Elemental Analysis

Si	0.050%
Fe	0.070%
Cu	0.005%
Ca	0.020%
Mg	0.010%
Zn	0.025%
Mn	0.000%
Other	0.010%

3. Additional Information

Aluminum nanoparticles are highly reactive and flammable, therefore they should be handled with care and rapid moves, and vibrations should be avoided. Nano powder should avoid sunlight, heating,

TECHNICAL SPECIFICATION

EAST HARBOUR GROUP

moisture, and impacts. Coagulation of the particles is a serious problem, so, nano powder should be sealed under vacuum and kept in cool and dry conditions. Air contact should be avoided.
Aluminum nano powder can be used in catalysis applications as well as biomedical research.
It can be added to heat transfer fluids, composite materials, package materials, transparent conductive fluids, and wear-resistant parts to strengthen their properties