

Product Information

LUDOX® AS-40

Colloidal Silica (made in USA)

Product Description

LUDOX® AS-40 Colloidal Silica (made in USA) contains synthetic amorphous silica of nominal 22 nanometer particle size. The aqueous colloidal dispersion contains 40% silica and is stabilized with ammonium hydroxide.

Product Characteristics

The following specification parameters will be stated in our Certificate of Analysis.

Property	UOM	Value	Test Method
Specific Gravity (15.6°C/60°F)		1.286 – 1.300	L6550.310.02.EC
Silicon Dioxide (SiO ₂)	% m/m	39.5 – 41.0	L6550.083.01.EC
Ratio SiO ₂ /NH ₃		160 – 270	L6550.043.01.EC
pH (25°C)		9.0 – 9.5	L6550.280.01.EC
% Transmission	%	20 min.	L6550.523.01.EC
Viscosity (25°C / 77°F)	cPs	20 max.	L6550.545.01.EC
Specific Surface Area	m ² /g	129 – 155	L6550.005.02.EC
Sulfates as SO ₄	% m/m	0.02 max.	L6550.277.01.EC
Total Sodium as Na	% m/m	0.10 max.	L6550.020.02.EC
Chloride as NaCl	% m/m	0.01 max.	L6550.203.01.EC
Average Particle Size	nm	20 – 24	L6550.005.02.EC

Typical Properties and Recommended Applications

The following typical properties data are given for informational purposes only and are not to be interpreted as product or in-process specifications.

Property	UOM	Value
Density	g/cm ³ , lb/gal	1.29, 10.7
Boiling Point (760 mm Hg)	°C/°F	100/212
Melting Point	°C/°F	0/32
Vapor Pressure (25°C)	mm Hg	24
Vapor Pressure (38°C)	mm Hg	48
Stabilizing Counter Ion		Ammonium
Particle Charge		Negative

LUDOX® AS-40 Colloidal Silica (made in USA) is preferred in catalyst, coatings and high temperature refractory fiber and other applications in which the presence of sodium is detrimental. Key features are:

- Low sodium level
- Good binding strength and excellent stability in most applications

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Packaging Information

The standard packaging for LUDOX® AS-40 Colloidal Silica (made in USA) is:

- 55 gallon drums (Net 590 lb/267 kg)
- 275 gallon bulk drums (Net 268 lb/1300 kg)
- bulk delivery

Handling & Storage Recommendations

- Store at temperatures above 2°C/35°F and below 43°C/110°F to avoid irreversible gel formation or silica precipitation. Bulk storage tanks or drum storage areas should be located in temperature-controlled buildings. Outdoor storage can be used if suitably insulated, heated and protected from the weather. Outside storage should be in a shaded location or a sunscreen should be erected over the tanks or drums.
- Keep the container tightly closed after use. All equipment should be cleaned and sanitized regularly to avoid bacterial contamination.
- Product should be used within 24 months of manufacture.
- Additional information can be found in the Safety Data Sheet (SDS).

Health & Safety Information

LUDOX® AS-40 Colloidal Silica (made in USA) is a synthetic amorphous silica dispersed in a stable form in water. Additional information can be found in our Safety Data Sheet (SDS). Please refer also to national laws and regulations.

ISO Certification

ISO 9001 Registered

Other Information

The information contained herein is based on our testing and experience and is offered for the user's consideration, investigation and verification. Since operating and use conditions vary and since we do not control such conditions, we must DISCLAIM ANY WARRANTY, EXPRESSED OR IMPLIED, with regard to results to be obtained from the use of this product. Test methods are available on request.

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