

NALCO® 1071

Colloidal Silica Fining Agent



Product Bulletin

PRODUCT BENEFITS

- Designed to maximize rate of removal of undesirable colloidal components in wine and juice.
- Very effectively removes excess gelatin from overfining and reduces colloidal haze.
- Efficiently removes hazes due to phenolic-peptide complexes remaining after enzyme treatment of juices.
- Easy to measure and use. Uniformly dispersed liquid — no mixing required.
- Consistent quality and purity. Manufactured to stringent quality specifications, **NALCO 1071** meets the specifications for amorphous silicon dioxide as set forth in the Food Chemical Codex. **NALCO 1071** may be used for the treatment of wine and juice in accordance with Paragraph 240.1051 of BATF.

PRINCIPAL USES

NALCO 1071 acts as a flexible fining agent for wine and juice. It is recommended for use in:

- Beverages requiring the highest level of fining activity where water addition is not a limitation
- Fining beverages requiring maximum rate of flocculation and clarification
- Fining beverages difficult to clarify by other agents

GENERAL DESCRIPTION

For a general description of chemical and physical properties, refer to the **NALCO 1071** Material Safety Data Sheet.

DOSAGE

For situations requiring a high level of fining activity, use with conventional fining agents but decrease normal amount of these agents by at least 25%, and substitute half of this amount with silica.

When fining in conjunction with gelatin or other protein agents, always add the gelatin (or protein) first, mix well, and then add **NALCO 1071**.

When fining in conjunction with clay products, add **NALCO 1071** with good agitation, mix, and add clay. In gelatin finings, always use **NALCO 1071** with low Bloom value gelatins. Suggested initial dosages:

- *White wines* — 5-lb silica (3.64 gal **NALCO 1071**) and 1-lb gelatin (per 1000 gal)
- *Fruit juices and wines* — 10-lb silica (7.28 gal **NALCO 1071**) and 2-lb gelatin (per 1000 gal)

See Table 1 for silica to **NALCO 1071** dosage conversions.

In general, gelatin should *not* be added last, to avoid haze formation.

For specific treatment levels and order of addition, run a small scale fining test, or consult with your Nalco representative for recommendations.

HANDLING AND STORAGE

Avoid contact with eyes. Avoid prolonged contact with skin. Do not take internally. **NALCO 1071** may be stored for up to one year. Prevent exposure to temperatures below 32°F (0°C), as freezing causes irreversible precipitation of the silica and will affect performance. Consult with your Nalco representative for appropriate handling equipment.

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INSTRUCTIONS FOR USE

NALCO 1071 and other fining agents must be added to the beverage separately. To maximize performance of the NALCO 1071, add slowly and uniformly with good mixing. Avoid local concentration of the product upon addition.

NALCO 1071 can be effective at many ratios with other fining agents. Since the requirements for fining any beverage can vary dramatically from lot to lot, season to season, it is recommended that small scale fining tests be conducted to determine optimum ratios and addition levels.

For your convenience, Table 1 has been developed to aid in your dosage calculations. The amount of water added as a result of the NALCO 1071 treatment also is shown (product contains 93% water by volume).

Table 1 — Silica to NALCO 1071 dosage conversions

SiO ₂ lb/1000 gal. beverage	Volume of NALCO 1071		Volume of water contained in NALCO 1071	
	gal	oz	gal	oz
0.5	0.36	47	0.31	40
1.0	0.73	93	0.62	79
2.0	1.46	186	1.24	159
3.0	2.18	280	1.85	237
4.0	2.91	373	2.47	317
5.0	3.64	466	3.09	396
10.0	7.28	932	6.19	792
15.0	10.9	1395	9.28	1188

The required volume of NALCO 1071 also can be calculated from the following equation:

$$\text{Volume of NALCO 1071} = \frac{x}{1.37}$$

Where x = pounds SiO₂ per each 1000 gal of beverage.

SHIPPING

Nalco products are shipped in various containers to include our unique PORTA-FEED® units or in bulk quantities. For specific information, contact your Nalco sales representative.

REMARKS

If you need assistance or more information on this product, please call your nearest Nalco Representative. For more news about Nalco, visit our Web site at www.nalco.com.

For Medical and Transportation Emergencies involving Nalco products, please see the Material Safety Data Sheet for the phone number.

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SUBSIDIARIES AND AFFILIATES IN PRINCIPAL LOCATIONS AROUND THE WORLD

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