

## 199A Precision Glass Grinding Fluid

199A Precision Glass Grinding Fluid is a synthetic, low foaming, glass grinding fluid for beveling, edging, and lens generating.

**Superior Lubricity** – 199A helps to greatly extend diamond life and produce a superior finish with no speed lines or burn marks. This will result in faster line speeds and higher production rates.

**Low Foaming Tendencies** – 199A has been formulated to be very low foaming in the most severe of operations. Many machine tank systems are too small for today's high-speed production needs. As a result, they experience severe high levels of agitation. This agitation can lead to high levels of entrained air in the coolant. This means air is sent to the grinding wheel. This entrained air can lead to lower line speeds and a loss of production because the entrained air has replaced the lubricant at the wheel glass interface.

**Eliminates Hard Build Up on Tank Bottoms** – Unlike other glass grinding fluids; 199A has a soft controlled settling rate. It forms a soft bed of fines in the tank, which may be removed with a shovel.

**Rapid Settling** – 199A Grinding Fluid is a rapid settling, non-hardening, low-foaming, synthetic grinding fluid that contains no mineral oil, phenols, phosphates, PCBs, di-ethanol-nitrosamines, mercurials or PTBBA.

**Free of Hard Build Up** – 199A will leave machine surfaces, coolant return lines, and coolant sumps free of hard build up. 199A is especially designed for glass grinding op-

erations that require a low foaming, rapid settling, and non-hardening coolant.

**Glass Swarf** – 199A treats glass swarf with a proprietary non-hazardous settling compound that does not allow the fines to settle and solidify hard in grinder sumps. Machines are cleaner and easier to clean out. This will reduce down time; lower manufacturing costs, and increase production output.

**Wheel Life** – 199A is fortified with a proprietary lubrication package that provides superior lubrication to help increase diamond life during the toughest of grinding operations.

**Calculating Starting Amount of Coolant** – To calculate the correct amount of coolant to be added to the sump, multiply coolant sump volume by 7.5 (the number of gallons of liquid in a cubic foot).

**Example:**

Tank width = 2 ft

Tank length = 6 ft

Tank depth = 2 ft

Volume = 2 x 6 x 2 = 24 cu ft

Liquid Volume = 24 x 7.5 = 180 gal

For a 50:1 concentration, add 180/50 = 3.6 gal to the coolant tank.

**Adding 199A to the Coolant Tank** – When diluting 199A, ensure that the machine sump is clean and free of built up glass fines and other foreign materials. Always add water to the sump first after cleaning, and then add 199A. Circulate the sump for

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several minutes before starting production to give the tank time to completely mix.

**Checking Concentration** – Coolant concentration should be checked daily whenever possible. The simplest method is with a hand held refractometer. For the best results, always filter the coolant through a 1-micron filter before reading the solution concentration. Once the coolant has been filtered, place a drop or two on the face of the refractometer. Hold the instrument up to the light and read the number just at the light colored line on the screen face. Write down and use it to refer to the refractive index chart enclosed with the product. Find the reading on the refractometer and locate it on the left-hand side of the chart. Now read to the right and down to determine the current dilution.

**Recommended Starting Dilutions**

Beveling	50:1 to 100:1
Lens Generating	30:1
Edging	75:1 to 100:1
Surface Grinding	50:1

**Typical Properties**

Appearance	Transparent Green Liquid
Volatile Component	Water
Freeze Point	32°F
Boiling Point	212°F
pH	9.4 - 9.8
Evaporation Rate	NA
Odor	Mild
Vapor Pressure	NA
Vapor Density	NA
Specific Gravity	1.04 - 1.05
VOC	None
Weight per Gallon	8.65 - 8.75
Solubility in Water	Infinite

**Packaging and Handling** – 199A is a liquid packed in non-returnable drums, Tote Bins, Pails, and Bulk. Refer to the Material Safety Data Sheet for suitable materials of construction, for handling, and storing of this product. Observe all safety precautions shown on the label and in the Material Safety Data Sheet.

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