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LIQUID-ICE®XP MACHINING COOLANT AND LUBRICANT

LIQUID-ICE®XP is an alternative to oil-based or semi-synthetic coolants. This fully water-soluble coolant has superb cooling properties and a high grade of lubricity. LIQUID-ICE® XP has been formulated to provide clear, clean chip flow, with no stickiness on machinery, parts or cutting chips. LIQUID-ICE® XP contains special inhibitors to prevent copper salts from leaching from yellow alloys, (Brass, Bronze and Copper) LIQUID-ICE® XP provides the optimum in tarnish and corrosion prevention on all ferrous and non-ferrous metals. LIQUID-ICE® XP has been engineered to be environmentally responsible and safe to operators. It does not create mists, vapors or odors.

- Best Anti-Foaming Characteristics in the Industry, even under 1000 PSI high pressure applications.
- Increased Cooling Capability resulting in better process control and Tool Life*.
- XP is Clean and non-sticky eliminating the need of washing machined parts before painting, welding or heat treating.
- Long sump life and easy to maintain.
- Long lasting Corrosion Protection without the need of expensive tank side additives. Specially engineered to protect Brass, Bronze and Copper parts.
- Environmentally friendly, does not create mists in the air.
- Extremely Safe for Operators and Machinery, no solvents or dyes.
- Crystal Clear in appearance allowing excellent visibility of the machining process

Applications: All machining applications involving ferrous and non-ferrous metals.

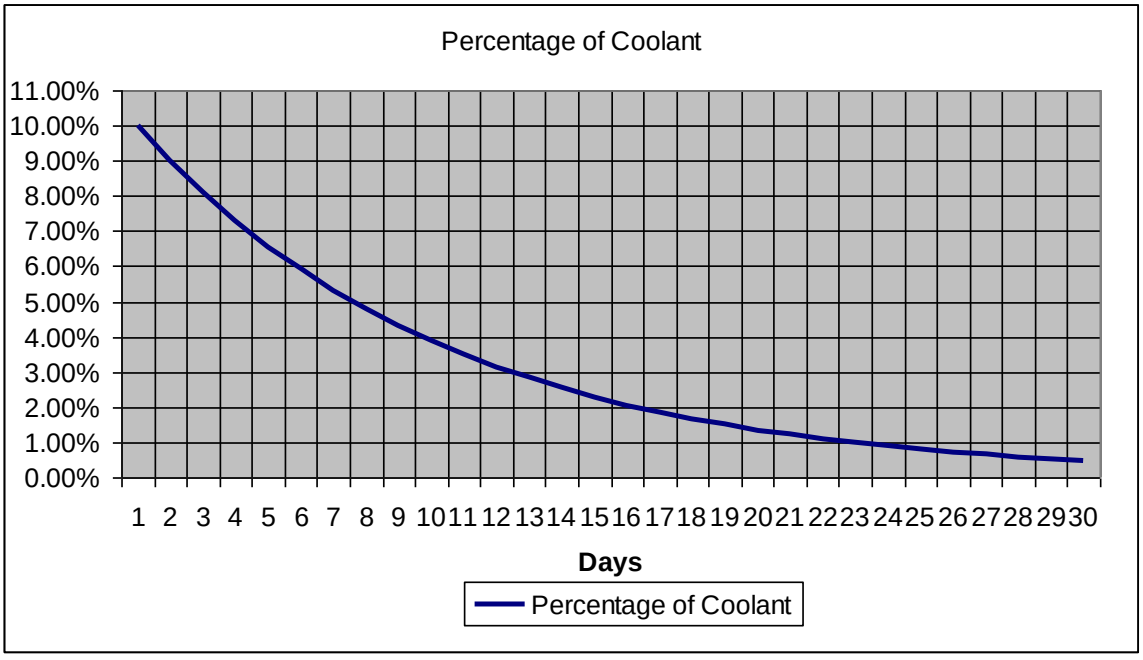
Application Data: LIQUID-ICE® XP should be flooding the surface of the cutting tool and material to be machined at all times.

Recommended Dilution Rates: Concentrations for Ferrous or Non Ferrous metals (aluminum, brass, steel or stainless) ranging from 8% - 12% (11:1 – 7:1) *Each situation will vary depending upon the specific water-hardness, type of machining and specific application.

Percentage	Dilution Ratio	Refractometer
5%	19:1	1.7
6%	14:1	2.0
8%	11:1	2.7
10%	9:1	3.4
12%	7:1	4.0

It is recommended to charge the system at 10%, to maintain functionality of the XP Inhibitors.

Environmental Data: LIQUID-ICE® XP's ingredients are highly biodegradable according to EPA, DIN, ASTM, or standard methods, are harmless to the environment, and contain no hazardous or toxic materials.



ASSUMPTIONS:

SYSTEM CAPACITY 30 GALLONS; CHARGED WITH 10% COOLANT (1O:1) DAILY LOSS OF SYSTEM VOLUME IS 10% OF CAPACITY; OF WHICH 90% IS WATER. DAILY COOLANT MAKE UP IS MADE USING WATER ONLY RESULTING IN LOSS OF CONCENTRATION AS SHOWN ABOVE