

Product Data Sheet

IPOL Aquacut 125

High performance Soluble Cutting Coolant.

Description:

IPOL AQUACUT 125 is a multi-purpose water soluble cutting coolant, giving milky white stable emulsion. The product is designed in a robust way to meet the requirements of all Industries. AQUACUT 125 can be used for machining & grinding of ferrous as well as non-ferrous materials. The product is formulated with highly refined base oil & fortified with high performance additive chemistries for getting optimum performance, under varying conditions.

Salient Features:

- Milky stable emulsion.
- Designed for Multi-Metal use
- Good lubricity and cooling property.
- Operator friendly.
- Forms stable emulsion up to 200 ppm of hardness of the water.
- Better corrosion protection.
- Longer sump life.
- Suitable for stand-alone as well as centralized cutting coolant systems.

Applications & Recommended Concentration:

Operation	Mild Steel	Alloy Steel	Aluminum	Copper Alloys
Grinding & Turning	3 –5%	4–6%	4–7%	4--8%
Milling, Reaming, Boring	4–6%	4–7%	5–8%	5--8%
Drilling, Tapping, Threading	4 –6%	4–8%	5–8%	5 --8%

Concentration Control:

Maintaining the concentration of the emulsion at the recommended level is important to get the optimum performance from the fluid. This also ensures the chemical & biological stability of your fluids. Proper concentration control also helps in keeping the total operating cost under control.

If Concentration of Sump is more than the recommended level	If Concentration of Sump is less than the recommended level
Do not add Water to the system directly	Do not add Oil to the system directly
Addition of Lean Emulsion of 1-3% concentration to sump recommended	Addition of Over-strength Emulsion of 8 to 10% concentration to sump recommended

Physical properties

Properties	Test Method	Typical test Values
Colour	Visual	Brownish clear
Appearance	Visual	Clear liquid
Specific Gravity @ 30 °C	ASTM D 1298	0.900
Nature of Emulsion	Visual	Milky Emulsion
pH [5%, 100 ppm water]	In House	9.1
Emulsion Stability 5 % in DM Water	Is 1448 P – 98/99	Passes
Emulsion Stability 5% in 400 ppm Water	Is 1448 P – 98/99	Passes
Cast Iron corrosion of 5 % Emulsion	DIN 51360 -- 2	Passes (Rating 0)
Refractometer factor		1.0

Note: The information provided is not to be taken as a warranty or representation for which we assume no legal responsibility nor as permission or recommendation to practice any attended location or otherwise. It is solely offered for your consideration, investigation and verification

Coolant Management Guidelines:

- Ensure that the machines are cleaned before charging the fresh emulsion.
- Chloride & Sulphate level should be less than 20 ppm in input water for longer sump life.
- Input Water hardness of 50 to 200 ppm recommended for optimum performance of emulsion
- Water quality to be regularly monitored
- During preparation of emulsion, always add oil to water with agitation to get homogeneity.
- Kindly ensure that the water is not added to Oil during the preparation of Emulsion.
- Check the emulsion concentration & pH on daily basis.
- Maintaining the proper concentration gives satisfactory performance
- The top-ups should be done in the form of emulsion.
- If the Coolant is maintained properly, Microbial growth is minimized.
- Remove the debris, tramp oil from the system on regular basis to enhance the sump life and keep the fluid healthy.

Storage & Handling:

The product is available in 210 & 26 Ltr HDPE drums. All containers are filled to volume by weight. This product has shelf life of about 6 months. Like most chemicals, it should be stored out of direct sunlight in temperature between 4 & 43 °C.

Safety and Precautions:

IPOL Aquacut 125 is unlikely to present any significant health hazard when proper personal and industrial hygiene are maintained.