



DPI SMF[®] 02 Machining Fluid

Distributed in North America exclusively by
RPM Technology, LLC

Product Data Sheet

Description

SMF 02 is a solvent-free and oil-free metalworking fluid for professional and heavy duty applications. This machining fluid is designed for processing hardened steel, stainless steel, iron, titanium, glass, plastic and other ferrous metals. Like all of our machining and grinding products, SMF 02 was designed based on many years of experience gathered in the area of chemicals, cooling lubricants and pharmaceuticals/skin-protection products resulting in superior characteristics and advantages in comparison with conventional lubricants that are based on oils or emulsions.

Advantages

SMF 02 contains solvent-free and oil-free (zero VOC) ingredients that are also applied in the food and cosmetic industry. No other product can make that claim! SMF 02 is not harmful to skin; it is dermatologically tested and proven not harmful to human health. It has even passed a skin patch test with no negative effects! Would you keep your existing coolant on your arm for days?

DPI's proprietary additives ensure that CNC machines and their components are protected against corrosion. SMF 02 has a low draw-off rate due to the ideal drain-off characteristics of water versus emulsions. All processing machines, as well as technical installations and workplace environments are kept in an absolutely clean condition both during and after the application of SMF 02. What's more is that the contamination problems that occur when using oil, synthetic, and emulsive lubricants do not occur with SMF 02. In addition, DPI products use NO emulsifying agents, so in the event of system oil leakages, the oil can be easily removed.

SMF 02 is biodegradable and is not only environmentally friendly, but its application actually provides a considerable contribution toward environmental protection. Also, with SMF 02, maintenance is not an issue. In fact, if our prescribed use and application guidelines are followed, we guarantee life-long durability and performance of SMF 02, as the solution is resistant to bacterial contamination or spoilage. A simple filtering once per year is sufficient.

SMF 02 has excellent cooling properties that allow for raising cutting parameters and considerably increase the endurance of tools. One customer experienced a 156% increase in drill bit life! The work piece surfaces do not become sticky or stained, and the machines and devices stay clean.

Thanks to its superior performance characteristics, process reliability, inherent safety to humans and the environment, and the absence of extensive machine-cleaning procedures, SMF 02 provides a considerable long-term operational savings.

Application

For maximum performance, SMF 02 can be applied as an all-purpose product for the machining of all types of metal and materials. Doing so frees users from the inconvenience of stocking and using various types of cooling agents for each respectively different area of application.

Directions for Use

In order to ensure optimum results, *thoroughly* clean the existing cooling fluid tank, the cooling fluid circulation system, and the machine environment before filling with SMF 02. It is essential to remove all oils, processing materials, and other residues in order to prevent them from being mixed with the DPI fluid. For this purpose, we recommend cleaning the entire cooling system with eOx AC (with a concentration of 25%), which ensures all corruptive residues, such as bacteria, yeasts and fungus, as well as oil sediments, etc., are destroyed or discharged and that the new filling is protected against unnecessary contamination.

Before filling the system with the SMF 02, completely remove the eOx from the cooling system. The recommended initial concentration of SMF 02 is 6% (refractometer scale 2.4 Brix). For ongoing operation, the make-up concentration is 3%. This will maintain the 6% target, as the coolant does not evaporate like the water.

Package Sizes

Packaging: 1-gallon, 210 L drums and 1,000 L Totes

Shelf Life

2 years

Storage

Do not store below 35°F/2°C or above 122°F/50°C.

Properties

NFPA Hazard Class:	Health	1	concentrate: 0 as used
	Flammability	0	
	Reactivity	0	
VOC:	0		
pH:	9.5-10		
Flash point:	>464°F/240°C		

Please consult the SMF 02 MSDS for information about product safety, risks, first aid, environmental influences, ingredients, and handling procedures for this product.

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