

Polartech MA 490 PE

Fatty Acid Aminopropanolamide

- Use** : Corrosion Inhibitor
Emulsifier
Lubricity Enhancer
- Applications** : Synthetic watermix cutting fluids
Semi synthetic watermix cutting fluids
Conventional cutting fluids
Watermix hydraulic fluids
Watermix cleaning fluids
- Advantages** : Superb emulsification of paraffinic and naphthenic oils
Excellent corrosion inhibition
Synergistic anti wear performance
Improved concentrate stability
Very low foaming potential
Low volatility AMP based
Secondary amine free
- Concept** : An emulsifier for the majority of base oil types, with cost effective ferrous corrosion inhibition, a relatively low foaming propensity whilst providing enhanced lubricity characteristics.

Typical Product Data

Appearance	: Dark amber, clear fluid
Specific Gravity @ 20°C	: 0.92
pH @ 1% Concentration	: 10.5
Acid Value mg KOH/gm	: 5 (max)

This does not represent a complete specification, full sales specification data will be supplied on request by Polartech Quality Assurance Department.

Health and Safety

Polartech MA 490 PE is free from nitrites, phenols, chlorine and PTBBA in accordance with international health and safety trends. For a full Material Safety Data Sheet please contact Polartech Limited.

Polartech MA 490 PE forms part of a comprehensive range of additives, if you require more information on this or any other product please contact Polartech Technical Department. This information is for guidance only. It is recommended that complete testing be carried out on all additives to determine their suitability for use in proprietary formulations.



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Formulatory Guidance

The following formulation would typically form a high performance, long service life metalworking fluid.

<u>Additive</u>	<u>% weight</u>
Polartech BA 70 M	12.5
Polartech MA 490 PE	12.0
Polartech Morecide BOO	2.0
Naphthenic Mineral Oil	55.0
Butyl Diglycol Ether	1.5
Polartech AK 500	2.0
Distilled Tall Oil	2.0
Naphthenic acid	3.0
Water	11.0
Propylene Glycol Ethers	2.0

This formulation is hypothetical only. The actual proportions will depend on a variety of factors including the type of base oil, coupling agents and fatty acids. All manufactured materials have a specification range and again this will vary the proportions required to produce a stable product. If further guidance is required please contact the Polartech Technical Department.

The following Reichart test results indicate the advantage of using Polartech MA 490 PE in the formulation of metalworking fluids.

<u>Fluid (all 20% emulsions)</u>	<u>Noise Level</u>	<u>Weight Loss %</u>
1 Conventional Emulsion	100	97
2 Biostable Semi Synthetic	100	90
3 Semi Synthetic using MA 490 PE	80	78
4 Semi Synthetic using Chlorine	71	65



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