



ELSURFAC – NPE8™ (Nonylphenol)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Colourless to pale yellow liquid
Odor	Mild
Molecular Formula	C ₁₅ H ₂₄ O(C ₂ H ₄ O) _n
Molecular Weight	572 g/mol
Density / Specific Gravity	1.059 @ 20 °C
Viscosity	330 mPa.s @ 20 °C
Refractive Index	n ₂₀ /D 1.495
pH (2% Aqueous Solution)	Between 6.00 and 8.00
HLB Value	12.6
HLB Comparison	The HLB value of nonylphenol ethoxylates increases with the number of ethylene oxide (EO) units. For comparison, NP-6 has an HLB of 10.9, NP-9 has an HLB of 12.9, and NP-10 has an HLB of 13.2.
Chemical Properties	
Ionic Nature	Non-ionic
Incompatibilities	Avoid contact with strong acids, strong bases, and strong oxidizers.
Hazardous Decomposition Products	Decomposition products are dependent on temperature, air supply, and the presence of other materials. In case of fire, toxic fumes may be released.
Thermal Properties	
Melting Point	0 °C
Pour Point	-6 °C
Boiling Point	> 200 °C
Flash Point	243.3 °C
Autoignition Temperature	425 °C (for NPE9)
Thermal Stability	Thermally stable at typical use temperatures.



Property	Specification
Solubility	
Solubility in Water	Soluble
Solubility in Ethanol	Soluble
Solubility in Methanol	Soluble
Solubility in Organic Solvents	Good solubility

2. Processing Methods

Environmentally Friendly Rust Remover

This formulation is designed for effective rust removal with simple, low-cost ingredients.

Key Ingredients	Indicative Dosage (% w/w)
Phosphoric Acid	0.3 - 1.0%
Citric Acid	0.3 - 1.0%
Nonylphenol Ethoxylate (NP-10)	1.9%
Hexamethylenetetramine	0.9 - 2.9%
Dodecyl Sulfate	1.3 - 3.8%
Ammonium Chloride	0.3 - 1.0%
Tartaric Acid	0.6 - 1.9%
Deionized Water	87.1 - 94.4%



Metal Polishing Agent

A formulation for polishing metal surfaces.

Key Ingredients	Indicative Dosage (% w/w)
Sodium Dodecylbenzene Sulfonate	2.0 - 7.0%
Sodium Oleate	1.5 - 5.0%
Ethanol	8.0 - 15.0%
Nonylphenol Ethoxylate (NP-10)	4.0 - 8.0%
Polysorbate 80	5.0 - 8.0%
Oleic Acid Triethanolamide	0.2 - 0.8%
Cocamide DEA Phosphate	1.0 - 4.0%
Defoaming Agent	1.0 - 4.0%
Sodium Phosphate	0.5 - 2.5%
Sodium Citrate	1.0 - 3.0%
Cysteine LBGAS	0.3 - 1.2%
Potassium Hydroxide	0.35 - 1.0%
Water	Balance to 100%

3. Dosing by Application

Application	Recommended / Max Dosage
Emulsion Polymerization	2% active based on monomers

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

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