Elchemy

ELSURFAC – NPE9™ (Nonylphenol)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Clear liquid, free from visible foreign matter.
Colour	Colourless to pale yellow liquid.
Odor	Mild odor.
Molecular Weight	616.82 g/mol
Density	1.057
Viscosity	200 - 400 mPa.s at 25°C
Refractive Index	1.508 (nD20)
pH (Aqueous Solution)	6.0 (1% Aq.)
Assay / Purity	≥97.0 %
HLB Value	12.9
HLB Comparison	NP-9: 12.9 (more oil-loving) NP-10: 13.3 (more water-loving)
Chemical Properties	
Ionic Nature	Non-ionic
Incompatibilities	Strong oxidizing agents, strong acids, strong bases.
Hazardous Reactions / Decomposition Products	Under fire conditions, may produce carbon oxides.
Thermal Properties	
Melting Point / Pour Point	Freeze Point: 3.8°C
Boiling Point	> 250 °C (Decomposes on heating)
Flash Point	>94°C - combustible
Autoignition Temperature	425 °C
Decomposition Temperature	Stable up to 50°C; decomposes at >150°C.
Thermal Stability	Stable under recommended storage conditions.
Cloud Point (1% Aq.)	52 - 56 °C
Solubility	

Property	Specification
Solubility in Water	Soluble
Solubility in Ethanol	Soluble
Solubility in Methanol	Soluble
Solubility in Chlorinated Solvents	Soluble
Solubility in Most Polar Solvents	Soluble
Solubility in Aromatic Hydrocarbons	Soluble
Solubility in Aliphatic Hydrocarbons	Insoluble

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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