



DESCRIPTION

ENVIRO-4ONS: NONIONIC SURFACTANT BLEND of FATTY ALCOHOL POLYGLYCOL ETHER



FORMULATION/COMPOSITION

- ENVIRO-4ONS** is a Nonionic Surfactant blend of both Straight chain and Branched chain fatty alcohol hydrophobes.
- Composition:
 - % Straight Chain Fatty Alcohol Ethoxylates | Proprietary
 - % Branched Chain Fatty Alcohol Ethoxylates | Proprietary



PROPERTIES/APPLICATIONS/USE

ENVIRO-4ONS is essentially designed as an Environmentally Safe 0.6:1 Drop-In Replacement for NP4 in the General Cleaning and Degreasing Formulations, in order to cover the requirements for:

Dispersancy; Emulsification; Wetting; General Detergency.

ENVIRO-4ONS is Suitable/Compatible for use in the following Product Classes:

HI & I Cleaners/ Dishwashing Liquid and Degreasers/ Hard Surface Cleaners/ Agrochemicals/ Industrial Hand Cleaners & Hand-Soaps/ Auto Care Products/ Metal Cleaners/ Dust Control/ Paper & Textile Processing/ Paints & Coatings Etc.

ENVIRO-4ONS is Insoluble in Water.

ENVIRO-4ONS is Soluble in most Polar/ Non Polar Solvents and Oils.

ENVIRO-4ONS is Chemically stable in the presence of Dilute Acids, Bases and Salts.

ENVIRO-4ONS is Compatible with Soaps, Anionic & other Nonionic Surfactants & most Polar Organic Solvents.

ENVIRO-4ONS needs to be included at between 0.1% for ready-to-use type Spray-On Products up to 5-10% in Concentrated Products being diluted 50-100 times before use.



SAFETY & HANDLING Always consult the Material Safety Data Sheet before use

PHYSICAL & CHEMICAL PROPERTIES

Physical state	Liquid	Cloud Point (5% Aq,Sol)	Insoluble
Appearance	Colourless Clear/Turbid	Flash Point Closed Cup,ASTM 93	281°C
Odour	Typical	Colour (APHA)	MAX 5
Specific Gravity (Density)	0.8-1.00g/cm ³ @ 20°C	HLB	8.90 ± 0.15
Solubility	In Oil & most Polar Solvents	Degree of ETHOXYLATION	Proprietary Blend of Fatty Alcohol Ethoxylates in short chain second alcohol-60% Concentrate
pH - (20°C- 5% Aq.Sol)	8.00 - 9.00		

Disclaimer / Non-warranty

This product has been subjected to limited tests and has been shown to perform well. The information contained herein is to our best knowledge true and accurate, but since the conditions of use are beyond our control, EnroChem Trading DMCC, disclaims any liability in connection with the use of this product and/or information. Warranty extends only as far as to the replacement of material shipped if not compliant with the specification as set out in the attached "Certificate of Analysis" and within the expiry period of the said product. All recommendations or suggestions are made without guarantee. It is good practice to conduct one's own application tests on a small area prior to using the product.



TECHNICAL DATA SHEET

YOUR CHEMICAL SOLUTIONS PROVIDER



FORMULATION HINTS

Where Thick Gel-like products are desired, we recommend the use of such techniques as the interplay between SLES, CDE, SULPHONIC ACID and SALT to achieve this, rather than to try thickening the products by using the Gel-Phase of a chosen surfactant, which in most cases are simply a waste of surfactant.

The inclusion of nonionic surfactants with an HLB similar to **ENVIRO-4ONS** in a water based formulation assists with good wetting as well as good rinsing off of all surfaces after the formulated product has performed it's Primary Function. For this reason, even if a formula is based largely on the use of Anionic Surfactants (SLES/ SDDBSA/ SLABS), it is always advisable to include even as little as 0.5% of **ENVIRO-4ONS** in the cleaning formula, where the final dilution of the product is up to 20-50 times. Where products are largely based on high-alkalinity cleaning functionality, they often lose rinseability, something that every user of a Cleaner/ Degreaser-type product deplores, because a product can only clean to the level of how well one can rinse it off after cleaning.

ENVIRO-4ONS will not play a big role in the Rheology of a Formulation and will likewise only exhibit moderate abilities to Hydrotrope the inclusion of Salts. For high level of salts we recommend that a suitable hydrotrope be incorporated in order to stabilise your formula.



STORAGE/SHELF LIFE

This product should be stored in its original packaging (tightly sealed), indoors in ambient conditions, between 10°C - 38°C. Under these storage conditions, this product will be stable for up to 2 years. Thereafter test parameters should be confirmed before use.

PACKAGING

ENVIRO-4ONS is available in	HLB Range
20 Kg - HDPE BLOWPACK	1. < 10: W/O Emulsifier
180 Kg - HDPE BLOWPACK	2. > 10: O/W Emulsifier
950 Kg - IBC (FLOBIN)	3. 10 - 15: Good Wetting
	4. 12 - 15.....: Detergents



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SPECIAL NOTES/CAUTIONS

Although **ENVIRO-4ONS** is recommended as a Drop-In Replacement for NP4 used in formulations, due to the Proprietary nature of Specific/Special Formulations, this product should always be Tested for Usage Level/Suitability for use within a formula before Batching-Up.

Due to **ENVIRO-4ONS** being a blend, stir or agitate mildly after prolonged storage periods or inactivity and after having been exposed to extreme temperature fluctuations.

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