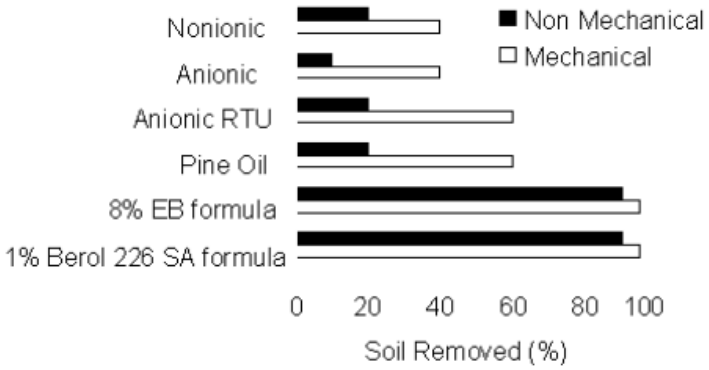
INFORMACIÓN TÉCNICA

Berol© 226 SA

Optimized, biodegradable, zero VOC surfactant blend for water-based degreasing

Berol226 SA is an optimized surfactant blend intended for use in water based degreasing cleaners.

Berol 226 SA is efficient for cleaning organic soils, such as grease and oil. Cleaners based on Berol 226 SA can often replace a solvent. The following graph shows that 1% Berol 226 SA in formulation D equals the degreasing performance of 8% EB in either mechanical, or non-mechanical degreasing.



Applications

- Vehicle cleaning
- Engine cleaning
- Industrial cleaning
- All purpose cleaning
- Descaling

Specification

Color	Max 7 Gardner
pH, 1% aqueous	5-8
Moisture	Max 1%

Typical Data & Properties:

Chemical & physical data

Active content	99-100%
Appearance at 25°C	Amber liquid
Clear point	-7°C (19°F)
Pour point	-10°C (14°F)
Flash point	>93°C
VOC (EPA method 24)	0%
Biodegradability by Terra SOP 903.06	69.4% day 28 Readily Biodegradable
Density	1044 kg/m^3 8.71 lbs/gallon
Viscosity, 25°C Brookfield DVLII Spindle #52 10 rpm (Cone & Plate)	146mPa s

Surface active characteristics

Foam height according to Ross-Miles, 50°C, 0.05%	0 min : 113 mm 5 min : 82 mm
Surface Tension according to Wihelmy plate, 25°C, 0.1%	27 mN/m (dynes/cm)
Contact Angle on parafilm at 25°C, 0.1%	33°
Critical Micelle Concentration	39 mg/lSolubility

The solubility of 5% **Berol 226 SA** in the following:

Ethanol	Soluble
Propylene glycol	Soluble
Water	Soluble
Mineral oil	Miscible
Xylene	Miscible

Technical Data

Berol 226 SA is an optimized surfactant blend designed for use in water based cleaners, for hard surfaces e.g. vehicle cleaning, RTU cleaners, heavy duty cleaners, dilutable cleaners, …

Berol 226 SA is designed to be used as the only surfactant together with chelating agents and/or builders in an aqueous system. Antagonist effects may be seen with other surfactants (especially anionic surfactants).

Berol 226 SA is a combination of a nonionic and cationic surfactant. This combination in conjunction with builders provides excellent degreasing.

Berol 226 SA can be used in acidic, neutral and alkaline type formulations.

Handling

Berol 226 SA should always be homogenized before use, unless entire amount is used.

Formulations with Berol 226 SA:

Berol 226 is designed to be the only surfactant used in the formulation.

Berol 226 SA will replace other surfactants and solvents, giving overall savings in raw material handling, and inventory cost. Formulations with Berol 226 SA will be more powerful than traditional formula, giving better dilutability, and lower formulation cost.

Heavy Duty Cleaners	A %	B %	C %	D %	E %
Water	81	81	78	78	63.5
Na4EDTA (40%)			7	9	11.5
TKPP	10	6	3	4	
Sodium metasilicate (5H2O)		4	3		
Berol 226 SA	9	9	9	9	9
pH (10% solution)	10	12	11.5	11	11

Phosphate Free Cleaners	F %	G %	H %	I %	J %
Water	68	76.9	85	82	80.5
Na4EDTA (40%)	23	14	-	-	4.5
Trisodium citrate	-	-	6	6	6
Citric Acid	-	0.1	-	-	-
Sodium metasilicate (5H2O)	-	-	-	3	-
Berol 226 SA	9	9	9	9	9
pH (10% solution)	11	10	8	12	10

Acid Cleaner		
Berol 226 SA		5%
Phosphoric Acid		20%
Water		75%
pH (concentrate)		< 1

How to use Berol 226 SA

To formulate with Berol 226 SA:

1. Add water
2. Dissolve salts
3. Add Berol 226 SA
4. Mix
5. Check the temperature of the cloud point

Dilution:
The formulas above are concentrates. Depending on the soil load, these concentrates can be diluted 1-10, 1-20, and 1-40 with water and color and perfume added.

Never mix Berol 226 SA with anionic surfactant
Try to use Berol 226 SA as the only surfactant