DeForest SURFACTANTS
SOLUTIONS AT THE INTERFACE

DeMULS DLN-532CE MOD

DeMULS DLN-532CE MOD is a concentrated, nonionic/cationic specialty emulsifier designed to produce D'Limonene micro-emulsions that remain clear upon dilution.

SPECIFICATIONS

Appearance @ 25°C:	Clear amber liquid*
pH (10% in DI Water):	9.0 -11.0
Color (Gardner):	10 max.

*DeMULS DLN-532CE MOD will haze and solidify upon exposure to temperatures below 50°F. Heat to 100°F- 120°F until clear and mix thoroughly before each use.

SOLUBILITY DeMULS DLN-532CE MOD is soluble in water, alcohols, chlorinated solvents, terpene solvents, terpene oils, aromatic solvents, and glycols. It is insoluble or dispersible in aliphatic solvents & other oils.

TYPICAL PROPERTIES

% Activity	95 minimum
Density @ 25°C	~1.0 g/ml

- D'Limonene emulsifier
- Solubilizer and emulsifier for solvents
- Wetting agent
- Moderate to high foam
- Hard water stability
- Biodegradable
- Non-phenolic
- Contains Diethanolamine
- Approved for use as inert in non-food pesticide formulations

APPLICATIONS

- Clear D'Limonene micro-emulsion concentrates and dilutions
- Degreasers
- Engine cleaners
- All purpose hard surface cleaners
- Co-emulsifier to improve clarity of polyethylene/polypropylene emulsions
- Terpene based paint strippers

Continued

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DeMULS DLN-532CE MOD Starting Formulations

Ingredient	Percent by Weight					
	A	B	C	D	E	F
D'Limonene	5.0	10.0	20.0	30.0	40.0	50.0
Butyl carbitol	2.0	0.0	0.0	2.0	5.0	0.0
DeMULS DLN-532EC MOD	6.0	12.0	22.0	32.0	40.0	50.0
Tap Water	87.0	78.0	58.0	36.0	15.0	0.0
	100.0	100.0	100.0	100.0	100.0	100.0

Procedure:

1. Mix the first three ingredients with moderate agitation until a clear solution forms.
2. Add half of the water and mix well.
3. Slowly add remainder of water and mix until well blended and clear.

The formulations can be diluted up to 32:1 with tap water and remain clear for at least eight hours. If dilution clarity is required for more than eight hours, distilled or deionized water should be used in place of tap water.

As with all emulsions, stability may be affected by temperature. The above concentrates should be stored between 50° -90°F. If emulsions freeze, gently warm to 70°-80°F and mix until clear.

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