METHYL ESTER SULPHONATE

WILFAMES™

WILFAMES™ is an environmentally friendly anionic surfactant derived from our RSPO certified palm oil. It has been in public interest since it has high detergency, water hardness tolerance property, and biodegradable ability. The carbon chains of WILFAMES™ are selected and controlled for optimum performance of the end-products.

Product Specification

Our WILFAMES™ is available in powder and flakes form to suit your needs.

Methyl Ester Sulphonate Powder Regular Grade

Parameter	Specification	
	WILFAMES™ C16 PR-5	WILFAMES™ C16 PR-10
Appearance	Off-White Powder	Off-White Powder
Color (Klett in 5% solution)	50 max	50 max
Active Matter (%wt.)	83 min	78 min
Zeolite Content (%wt.)	3-7	8-12
Moisture (%wt.)	5 max	6 max
pH	4.5-7.0	5.0-8.0
Bulk Density (kg/l)	0.5-0.8	0.5-0.8
PRODUCT FORM	Powder	Powder
PACKAGING	PB;BB*	PB;BB*

Methyl Ester Sulphonate Flakes Regular Grade

Parameter	Specification
	WILFAMES™ C16 FR
Appearance	Off-White Flake
Color (Klett in 5% solution)	50 max
Active Matter (%wt.)	87 min
Zeolite Content (%wt.)	Nil
Moisture (%wt.)	4 max
pH	4.5-7.0
Bulk Density (kg/l)	0.4-0.7
PRODUCT FORM	Flake
PACKAGING	PB;BB*

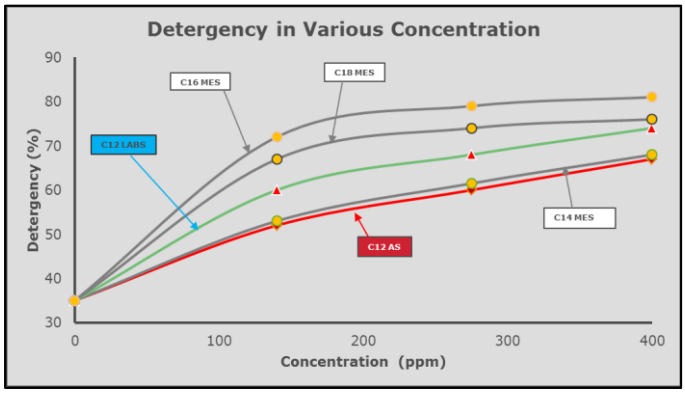
*) PB: 25 kg net pp laminated paper bag; BB: 600 kg net jumbo bag

"As an environmentally friendly surfactant, MES can also provide performance benefits to customers."

-From a leading detergent manufacturer

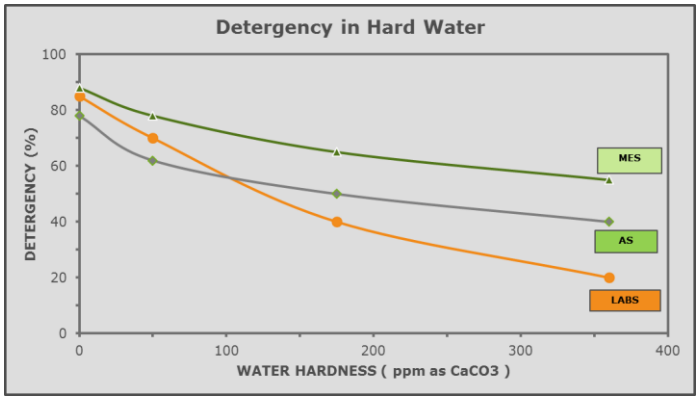
Benefits of Using WILFAMES™ in Formulation

1. Superior Detergency at Low Concentration



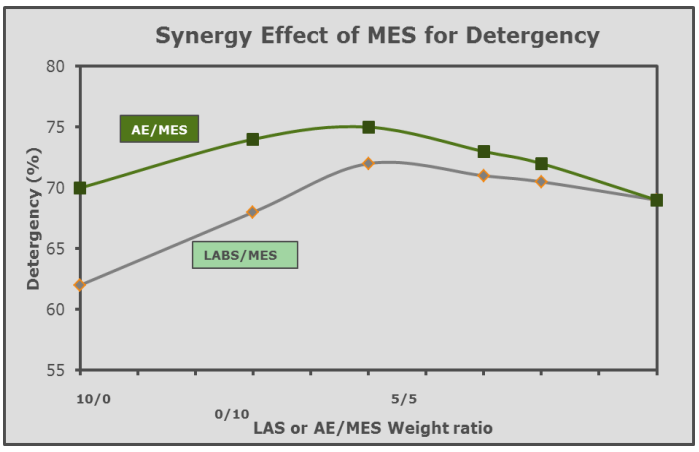
C16 MES shows better detergency compared to the other pure homologs of MES. It is even superior to LABS or LAS in a medium - temperature washing test.

2. Better Detergency in Hard Water



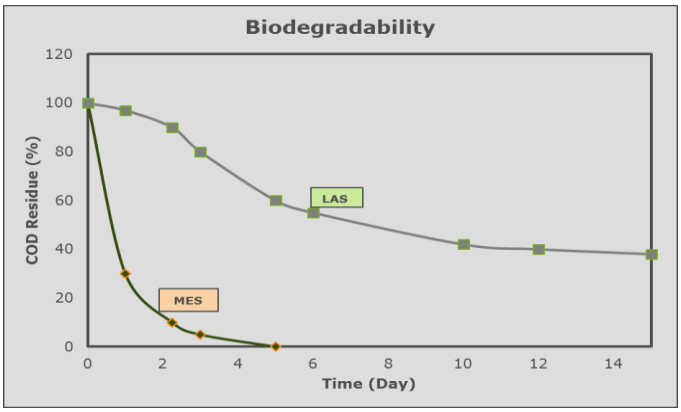
MES has better detergency over a wide range of water hardness concentration than other surfactant.

3. Excellent Synergistic Effect when Combined with Other Surfactants



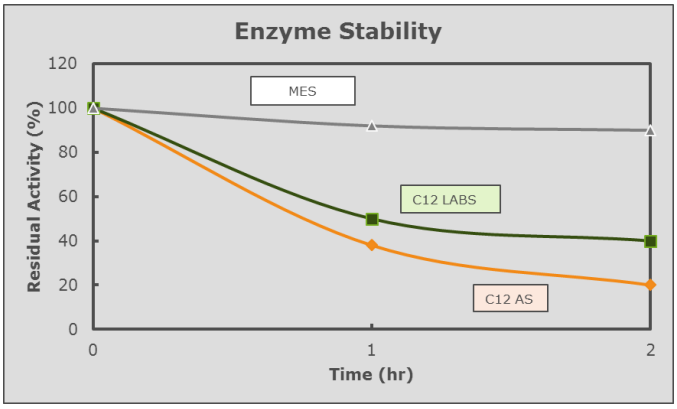
Due to poor detergency of another surfactant in high water hardness concentration, MES is an excellent co-surfactant. In addition, it displays significant synergism for increase foam stability.

4. **Readily Biodegradable**



MES degrades significantly faster than LAS and is substantially degraded in about one day.

5. **Compatible with Application of Builders and Enzymes**



MES maintains better enzyme activity compared to the other surfactant. Effect of builders also gives not significant effect.

**Studies have been conducted using enzymes commonly used in the industry, such as protease, lipase, amylase, and cellulose.*

6. **Cost Effective and Productivity Upgrading**
   WILFAMES™ is delivered in low moisture flake or powder form, thus no need for further drying and could easily be added into detergent powder production line through simple blending process. Existing detergent powder production capacity could be increased with minimum investment.

Applications

WILFAMES™ powder is ideal to be used to substitute LABSA in powder laundry detergents, while WILFAMES™ flakes is used in both light-duty and heavy-duty liquid detergents, it also can be used to replace LABS. In some formulations where foam depressants are used in a liquid detergent, by adding it as a substitute will act as a foam depressant. It is also possible to use WILFAMES™ in combination soap bars.