

## Sodium Alpha Olefin Sulfonate (AOS-35)

### Features of Sodium Alpha Olefin Sulfonate (AOS-35) China

- Product Name: Sodium  $\alpha$ -olefin sulfate (AOS-35)
- Chemical Formula:  $R-CH=CH-(CH_2)_n-SO_3Na$
- CAS No.: 68439-57-6
- Dangerous Grade: Non-dangerous

### Technical Data of Sodium Alpha Olefin Sulfonate (AOS-35)

ITEMS	SPECIFICATIONS
Appearance	Colorless or light yellow liquid
Active Matter %	34.0 ~ 36.0
Sulfate %	$\leq 1.36$
Unsulfated Matter %	1.70
NaOH %	$\leq 0.50$
Color [klett]	$\leq 80$

### Package and Storage

- 200kg drum
- Store in a cool dry place, keep drums closed when not in use

### **Application /Application Industries**

- anionic surfactant
- shampoo, body wash bath gel
- oil-displacing agent, foam boost agent for increasing oil recovery

### **WASHING POWDERS**

Based on detergency test result, both LAS and AOS showed good synergy in phosphorus-containing and non-phosphorus powders. In phosphate-free washing powders with LAS and AOS as anionic active ingredients, the detergency of AOS is significantly increased when the active content is more than 20%. The detergency synergy of AOS in non-phosphorus washing powder is more outstanding than that in phosphorus-containing powder. AOS has a good compatibility with enzyme. The detergency power of AOS and LAS is not much different at high temperatures and long-term washing (eg above 60 °C, washing for 1 hour). However, AOS shows higher detergency performance than LAS when used under room temperature (10-40°C for 10-29 minutes). Compared with LAS, AOS features stronger hard water resistance. AOS shows a very good stain removal performance on sebum dirt and oily and powdery stain.

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### **APPLICATION OF SOAP**

Adding AOS can increase the solubility of soap in water, wetting power and foam strength of soap at low temperatures can also be increased significantly It improves various properties of the soap, enhances foaming power, increases hard water resistance and flexibility.

### **LIQUID DETERGENT APPLICATION**

Due to the greater irritation of LAS, many detergents do not use LAS as an active ingredient, while AOS has a low irritative property and good biodegradability, making it a more suitable alternative.

### **PERSONAL CARE APPLICATION**

The mildness of AOS is comparable to that of AES, while LAS and AES are much more irritating than AOS. Thus AOS has a wide range of use in personal care products. AOS is extremely stable under acidic conditions, and normal human skin is weakly acidic (pH about 5.5), so it is suitable to use AOS as a component of personal washing products. Shampoos with AOS as the main active ingredient are more foamable than with K12.

### **OTHER APPLICATIONS**

AOS has a wide range of applications in the textile printing and dyeing industry, petrochemicals, tertiary oil recovery, and industrial cleaning. It can also be used as a concrete density improver, foam wallboard, fire-fighting foaming agent. It can also be used as an emulsifier, wetting agent, etc.