



SIDDHI TRADE ENTERPRISE

SODIUM PETROLEUM SULPHONATE

TECHNICAL DATA SHEET

INTRODUCTION

Sodium petroleum sulfonates are unique materials because of their dual function as surfactants and rust inhibitors. The polar nature of the sulfonate end of the molecule functions as a typical anionic surfactant, orienting itself with water or other polar materials while the hydrocarbon tail provides the bridge to the nonpolar phase.

FORMULATIONS

It may be used at concentrations of 10% to 22% by weight in selected industrial and metalworking applications.

APPLICATIONS

Metalworking Fluids

Sodium sulfonates have had a long history of use in metalworking fluids. It functions as emulsifiers and corrosion inhibitors.

In liquid system, sulfonates can hold oil and water apart so that they can co-exist & form an emulsion.

Suggested SPS: SPS-L, SPS-M

Anti-Corrosion Compounds

High molecular weight sodium sulfonates adhere to metal surfaces and provide excellent moisture barriers. SPS - H can be compounded with petroleum oils, waxes, petrolatum and various synthetic materials. Finished products are used in applications such as preservative oils and automotive rust proofing formulations. SPS - H is also compatible with a wide range of solvents when thin films are desirable.

On solid surface, sulfonates functions like adhesive, holding oil to metal. By chemically bonding oil to metal, sulfonates prevent water and air from reaching the surface of the metal.

Suggested sps: SPS-H

Ore Flotation

This sulfonates have been used as flotation agents for various metals and minerals. The ability of the sulfonates to wet the surface of particles renders the ore hydrophobic. This allows the ore to adhere to air bubbles and move to the surface in the froth.

In ore flotation, sulfonates bind the ore particles to air bubbles, in froth, allowing them to rise and separate from rock.

Suggested sps: SPS-M, SPS-H,

Demulsifiers

SPS-H grade sulfonates can act as de-emulsifier. A Bulky structure prevents them from forming a continuous protective film around a droplet. This allows two droplets to contact one another, forming a large droplet which separates from solutions.

Suggested SPS: SPS-H

Motor Oil and Fuel Additives

The sodium sulfonates are often converted to calcium or barium salts for this application; however, in some situations the sodium sulfonates may be preferred. Detergency and rust inhibitive properties are the most important functions of SPS - H when used as additives.

Overbasing

Overbasing is a process of beefing up a sulfonate molecule with extra atoms like calcium and magnesium so that it will seek out and neutralize excess acids in a mixture. This process is typically used in motor oil additives.

Suggested sps: SPS - H

OTHER APPLICATIONS

- Dry cleaning solvents
- Leather processing
- Printing ink
- Oil well drilling fluids

TYPICAL PROPERTIES

- Gravity, @ 15.6° C 1.022
- Viscosity @ 100°C, cSt 190
- Basicity basic
- Flash point °C (COC) 205

SODIUM PETROLEUM SULPHONATE

SPECIFICATION SHEET

Test	Method	Minimum	Maximum
Appearance	VISUAL		Clear and bright
Color	ASTM D 1500	3.0	5.0
Sp. Gravity @ 15.6°C	ASTM D 1298	1.019	1.029
Viscosity @ 100°C, cSt	ASTM D 445	175	200
Flash point °C (COC)	ASTM-D-92	185	205
Equivalent Weight, as Sodium Sulfonate	ASTM-D-3712	425	500
PH, 3% [v/v] in D.M. water	ASTM D 664	8.0	9.5
Basicity % [w/w] as NaOH	ASTM D-974	0.10	0.20
Water content % wt.	ASTM-D-95	0.5	5.0
Mineral oil % wt.	ASTM-D-3712	32.0	35.0
Sodium sulphonate % wt.	ASTM-D-3712	60.0	65.0
Inorganic Salt % [w/w]	ASTM-D-3712	0.2	1.0
Solubility of SPS in Mineral oil/IPA/Naphtanic oil	INTERNAL	Pass	Pass

On behalf of [Siddhi Trade Enterprise](#), we are pleased to have the opportunity to work with you and we look forward to establishing a solid, mutually beneficial business relationship.

Please feel free to contact us for further details. Assuring you our best services.

SIDDHI TRADE ENTERPRISE

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