

Nordson Type S Fluid

Product Description:

Nordson Type S Fluid is a blend of refined dimethyl esters of adipic, glutaric, and succinic acids. Type S Fluid is a clear, colorless liquid having a mild, agreeable odor. It is readily soluble in alcohols, ketones, ethers, and many hydrocarbons, but is only slightly soluble in water and higher paraffins.

Applications:

Equipment Lubrication

Storage and Handling:

Type S Fluid is stable and non-reactive under normal conditions of use, storage and transport. It is incompatible with strong oxidizing agents and strong acids.

DOT Classification—Type S Fluid is not classified as hazardous materials.

Packaging:

1 Quart Container

Type S Fluid General Information

Typical Compositions, wt%	Type S Fluid
Dimethyl Adipate	21
Dimethyl Glutarate	59
Dimethyl Succinate	20
Methanol	0.2
Water	0.05
Physical Properties	
Molecular Weight	159 ^a
Sp. Gr. at 20/20 °C ^b	1.092 ^c
Density at 20 °C (lb/gal)	9.09 ^c
Distillation Range, °C	196–225
Vapor Pressure at 20 °C (Torr)	0.2 ^d
Solubility in Water, wt% at 20 °C	5.3
Water Solubility in DBEs, wt% at 20 °C	3.1
Freezing Point, °C	–20 ^c
Flash Point, Tag Closed Cup, °C (°F)	100 (212)
Auto Ignition Temp., °C	370
Latent Heat of Vaporization, cal/g	81
Viscosity at 25 °C, cst.	2.4
Solvent Properties	
Solubility Parameters ^e	
Nonpolar	8.3
Polar	2.3
Hydrogen Bonding	4.8
Surface Tension at 20 °C, dyn/cm	35.6
Electrical Resistance ^f at 24 °C, megohms	0.5
Specifications	
Ester Content, wt% min.	99.0
Water Content, wt% max.	0.10
Acid Number, max.	0.30
Composition Range	
Dimethyl Adipate	10–25
Dimethyl Glutarate	55–65
Dimethyl Succinate	15–25
Color, APHA, max.	15
Turbidity, ppm, max.	5

^a Average for mixture

^b sp. gr./T = –0.0007 per °C over the range 20–50

^c Approximate, based on composition

^d Calculated for typical composition using Antoine constants determined according to ASTM D-1719.

^e Hansen Solubility Theory

^f Ransberg Paint Resistance Tester Model 219CB