

WESTON[®] TNPP phosphite

Phosphite Antioxidant

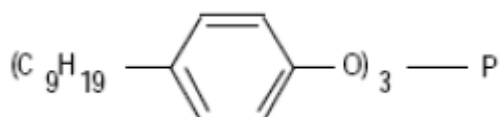
Description

WESTON[®] TNPP phosphite is a versatile phosphite stabilizer which is useful in a large number of polymers such as HDPE, LLDPE, SBR, ABS, PVC and others. In most polymers, **WESTON[®] TNPP phosphite** is a cost-effective, high purity stabilizer that improves color and processing stability during recovery, drying, compounding, processing and end use. Synergism is realized when this product is combined with other stabilizers such as hindered phenols. It may be added alone or in combination with the monomers and/or in antioxidant emulsions during recovery and/or during compounding.

Chemical Structure

Trisnonylphenyl Phosphite⁽¹⁾ C₄₅H₆₉O₃P

Chemical Abstract Number: 26523-78-4



Typical physical properties of WESTON[®] TNPP phosphite

Appearance	Clear liquid
Specific Gravity @ 25°C/15.5°C	0.980-0.992
Color (Pt - Co)	75 max.
Flash Point (Pensky - Martens Closed Cup)	207°C (405°F)
Density (lb/gal @ 25°C) (g/ml @ 25°C)	8.2 0.98
Vapor Pressure @ 6 mm/Hg	245°C (472°F)
Formula Weight (g/mol)	688
Viscosity, cps @ 60°C (140°F)	250
Acid No. (mg KOH/g)	0.05 max
Refractive Index @ 25°C (77°F)	1.5255-1.5280
Free Nonylphenol (%)	3.0 max.
Phosphorus Content (%)	4.1-4.5
Chlorine Content	<25 ppm
Free Phenol	<50 ppm
Specific Heat mc/mg°C	0.4
Thermal Conductivity gcal/(sec)(cm ²)(°C/cm)	0.0003
Auto-ignition Temperature	439°C (822°F)

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Features

- Low color
- Low nonylphenol content

Solubility

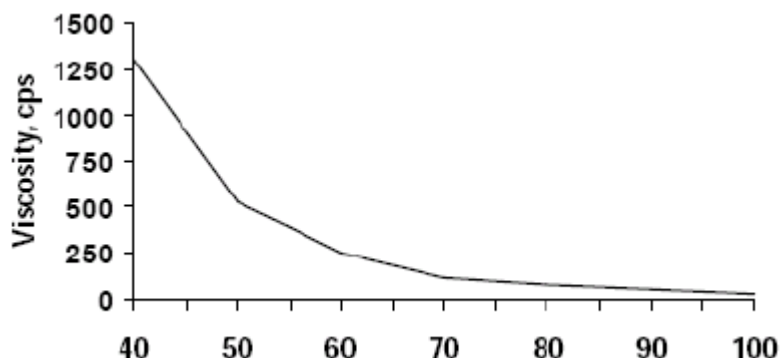
- Soluble in most common aprotic organic solvents
- Insoluble in water

Regulatory Status

WESTON[®] TNPP phosphite complies with 21 CFR 178.2010 and with EU Directive 2002/72/EC for use in all polymers. Consult the regulations for limitations/restrictions before use.

Viscosity versus Temperature

WESTON[®] TNPP phosphite can be heated to facilitate transfer in-plant. The following viscosity versus temperature graph can be used for proper selection of metering and pumping equipment. The following data shows a wide range of temperatures, however, the maximum recommended storage temperature is 80°C.



Viscosity, cps	Temperature / °C
15,000	15
6,000	25
1,300	40
525	50
395	55
250	60
115	70
80	80
50	90
32	100
21	110
18	120

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Storage and Handling

The product may be stored at least one and one half (1_{1/2}) years in sealed containers. Containers should be stored in a cool, dry area. Extended storage at elevated temperatures or exposure to direct heat could decrease product shelf life. Containers should be kept sealed when not in use. If stored outside in cold weather, the drums should be warmed to facilitate pouring. Open drums should be used as soon as possible (within a maximum of 4 months) to avoid hydrolysis, especially during humid weather.

For additional handling and toxicological information consult the Addivant[™] Material Safety Data Sheet.

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