

## WESTON<sup>®</sup> 618F phosphite

### Phosphite Antioxidant

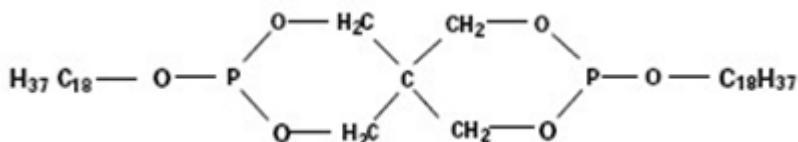
#### Description

**WESTON<sup>®</sup> 618F phosphite** is a phosphite that is a highly effective color and molecular weight stabilizer for polyolefins, polyesters, elastomers, styrenics, engineering thermoplastics, and adhesive formulations. It also contributes to the thermal and UV stability of these polymers. This product is available in a flake form.

#### Chemical Structure

Distearyl Pentaerythritol Diphosphite  $C_{41}H_{82}O_6P_2$

Chemical Abstract Number: 3806-34-6



#### Typical physical properties of WESTON<sup>®</sup> 618F phosphite

Appearance	White Flakes
Specific Gravity @ 60°C/15.5°C	0.920-0.935
Acid No. (mg KOH/g)	1.0 max
Refractive Index @ 60°C (140°F)	1.4560 - 1.4590
Phosphorus Content (%)	7.8-8.2
Flash Point (Pensky-Martens Closed Cup)	185°C (365°F)
Bulk Density [lb./ft <sup>3</sup> ] & [g/ml]	27 & 0.43
Melt Range	37-46°C (99-115°F)
Formula Weight	732

#### Solubility @ 25°C (77°F)g/100g

Acetone	0.3	Cyclohexane	20.0
Benzene	14.7	Hexane	25.0
Chloroform	45.0	Toluene	30.0
Corn oil	0.4	Water	<0.1

Note: Solutions may be cloudy.

Soluble in most common aprotic organic solvents

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## Product Features

- Excellent color stability during processing, fabrication and end use
- Polymer protection from degradation during processing
- Reduced discoloration of polymers containing pigments such as TiO<sub>2</sub>
- Reduced discoloration of polymers that are stabilized with a sulfur-containing, nickel-organic complex and are processed at high temperatures
- Synergism when used with light stabilizers such as benzophenones and benzotriazoles
- High performance at low loading levels for more cost effective formulations

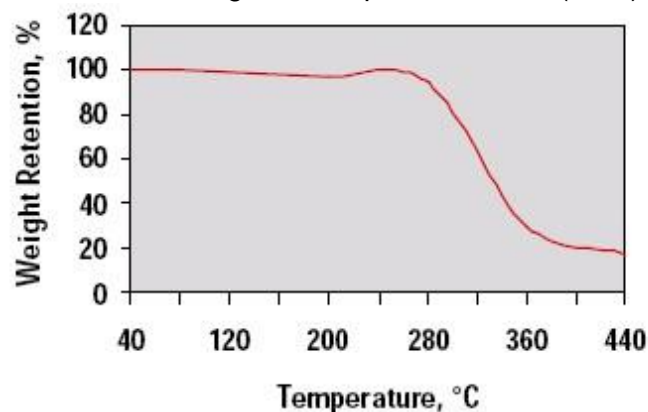
## Food Contact Regulatory Status

**WESTON<sup>®</sup> 618F phosphite** complies with 21 CFR 178.2010 for use in many polymers. Also listed with Germany (BfR) and other EU member state regulations. Consult the regulations for limitations and restrictions before use.

For details please contact Addivant<sup>™</sup> Regulatory Affairs Polymer Additives.

## Volatility by Thermal Gravimetric Analysis

Conditions: Nitrogen atmosphere @ 20°C (36°F)/minute.



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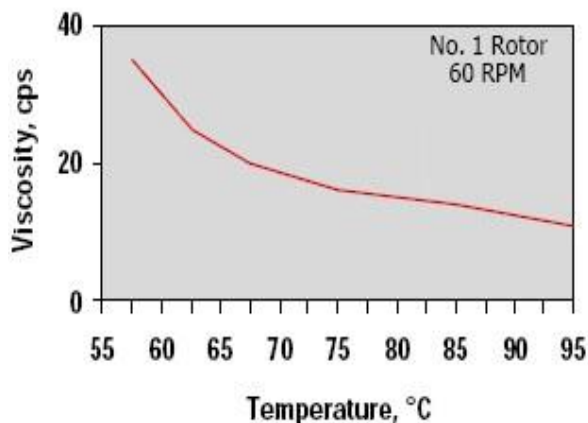
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## Viscosity vs. Temperature

**WESTON® 618F phosphites** tested in air.

Heating rate 5°C/minute



## Storage and Handling

The product may be stored at least one (1) year 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.

Open containers should be used as soon as possible (maximum 4 months) to avoid hydrolysis, especially during humid weather.

**For additional handling and toxicological information consult the Addivant<sup>™</sup> Material Safety Data Sheet.**

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