

# DOVERPHOS S-9228<sup>®</sup>

Solid Phosphite Antioxidant  
for Processing at  
Elevated Temperatures



Doverphos S-9228 is a free-flowing, solid phosphite antioxidant developed by Dover Chemical Corporation. Doverphos S-9228 has excellent hydrolytic stability without the addition of inert products or triisopropanol amine. Doverphos S-9228 exhibits similar color performance as demonstrated by distearyl pentaerythritol diphosphite – Doverphos S-680 and other similar pentaerythritol diphosphites. Because of its high melting point, Doverphos S-9228 can be utilized in applications that require processing at elevated temperatures.

Doverphos S-9228 has broad, global food contact approvals\* for most polymers. The oxidative and possible hydrolysis products are included on the European food registration, and therefore are considered non-NIAS (Non-Intentionally Added Substances).

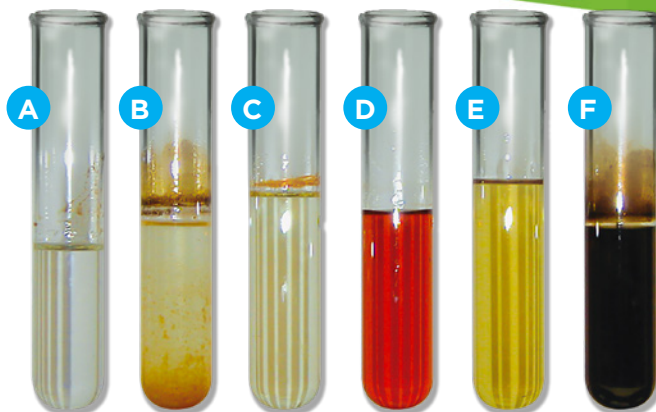
\*Please contact Dover Chemical Corporation for maximum limits for specific polymers

Product	Appearance	Melting Point, °C	Phosphorus, %	Volatility, % @ 105°C/2 hr.	Assay, %	Acid Number (mgKOH/gm)
Doverphos S-9228 Bis (2, 4-dicumylphenyl) pentaerythritol diphosphite	Off-white free-flowing powder	230	7.3	0.2	99.5	0.5
Doverphos <sup>®</sup> S-9228T Bis (2, 4-dicumylphenyl) pentaerythritol diphosphite plus triisopropanolamine	Off-white free-flowing powder	230	7.3	0.2	99.5	0.5
Doverphos S-9228PC Bis (2, 4-dicumylphenyl) pentaerythritol diphosphite	Off-white free-flowing granule	230	7.3	0.1	99.5	0.1

Also available in compacted forms: S-9228C, S-9228CT, and S-9228PCC

Doverphos S-9228 compared to various commercial phosphites after heating at 280°C for 120 minutes.

- A** **Doverphos S-9228 Bis (2,4- di-cumylphenyl) pentaerythritol diphosphite. CAS registry No. 154862-43-8**
- B** **Bis (2,4-di-t-butylphenyl) pentaerythritol diphosphite**
- C** **Doverphos HiPure<sup>®</sup> 4 Trisnonylphenyl Phosphite**
- D** **Phosphorus trichloride, reaction products with 1,1'-biphenyl and 2,4-bis (1,1-dimethylethyl) phenol**
- E** **Tris (2,4-di-t-butylphenyl) phosphite**
- F** **Bis (2,6-di-t-butylphenyl-4-methyl pentaerythritol) diphosphite**

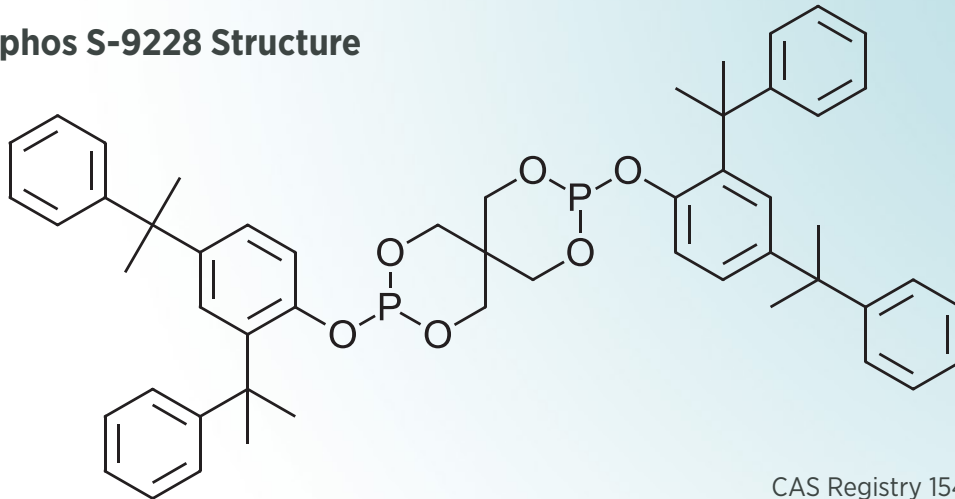


For more information, visit us at [www.doverchem.com](http://www.doverchem.com)  
Toxicity and handling information is found on the Safety Data Sheet (available upon request)



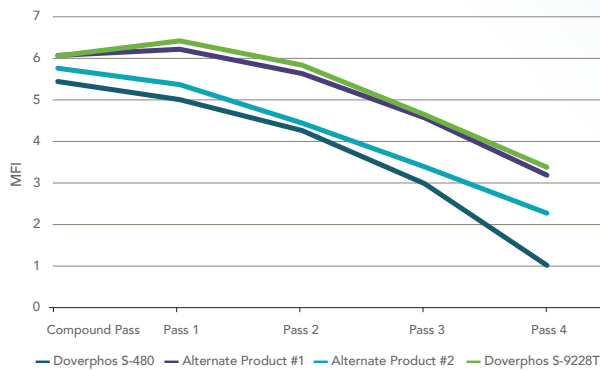
3676 Davis Road NW, Dover, OH 44622  
330-343-7711 · 800-321-8805 · Facsimile 330-365-3926  
[www.doverchem.com](http://www.doverchem.com)

## Doverphos S-9228 Structure



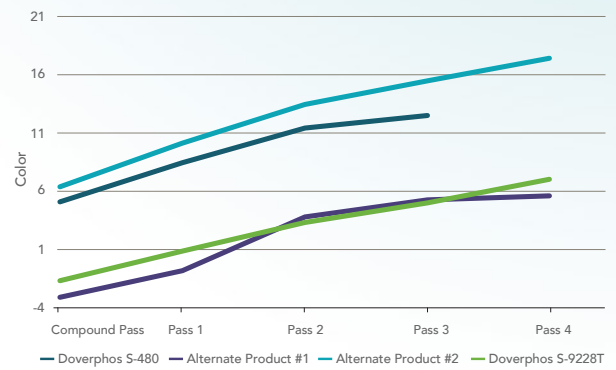
CAS Registry 154862-43-8

HDPE Melt Flow Index (190C, 21.6 kg)



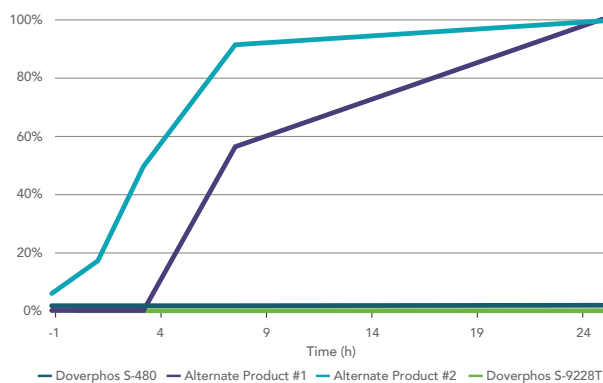
Note: 500ppm of DN 10 was added

Color (Yi)



Note: 500ppm of DN 10 was added

Rate of Hydrolysis (80C, 85% humidity)



LGP-11®, LUBE-BOOSTER®, MAYCO®, PAROIL®, SUL-PERM®, SYN-CHEK®, SYNKAD®, CHLOREZ®, CHLOROWAX 40®, CHLOROWAX 50®, DOVERNOX®, DOVERPHOS®, DOVERPHOS HIPURE®, and DOVERPHOS S-9228® are federally registered trademarks of Dover Chemical Corporation.

The information contained on this data sheet is believed to be reliable. Since the conditions of application and use of our products are beyond our control, no warranty is expressed or implied regarding accuracy of the information, the results obtained from the use of the product, or that such use will not infringe on any patent. This information is furnished with the express condition that you will conduct your own tests to determine the suitability of the product for your particular use. (073112)