



Polymer Stabilizers  
Antioxidants and  
Light Stabilizers

Polymer stabilizers protect plastics during manufacture and use

Thanks to light weight, cost effectiveness, flexibility and ease of processing, plastics are being used on an increasing scale in a wide and continuously growing variety of industries and applications. To prevent degradation when exposed to heat, cold and light, plastics require stabilization. Specially designed stabilizers protect the polymer during processing and ensure that plastic end products retain their physical properties during use, prolonging their life.

SONGWON offers a comprehensive range of processing, heat and light stabilizers in a variety of blends and physical forms that facilitate handling and application.

It's all about **the chemistry™**



# Product range selection guide

## Phenolic Antioxidants

		ABS	PC/ABS	PC	PU Fibers	Polyamides	Polyesters	Polyethylene	Polypropylene	Polystyrene	Polyurethane	PVC	Elastomers	Acrylics	Polyacetal	TPU
SONGNOX® 1010																
SONGNOX® 1076																
SONGNOX® 1135																
SONGNOX® 2450																
SONGNOX® 3114																
SONGNOX® 1035																
SONGNOX® 1098																
SONGNOX® 1330																
SONGNOX® 5650																
SONGNOX® 1024																

## Aminic Antioxidants



		ABS	PC/ABS	PC	PU Fibers	Polyamides	Polyesters	Polyethylene	Polypropylene	Polystyrene	Polyurethane	PVC	Elastomers	Acrylics	Polyacetal	TPU
SONGNOX® 5057																

## Phosphite Antioxidants

		ABS	PC/ABS	PC	PU Fibers	Polyamides	Polyesters	Polyethylene	Polypropylene	Polystyrene	Polyurethane	PVC	Elastomers	Acrylics	Polyacetal	TPU
SONGNOX® 1680																
SONGNOX® 6260																
SONGNOX® 6280																
SONGNOX® PQ																
SONGNOX® 9228																

## Thioester Antioxidants

		ABS	PC/ABS	PC	PU Fibers	Polyamides	Polyesters	Polyethylene	Polypropylene	Polystyrene	Polyurethane	PVC	Elastomers	Acrylics	Polyacetal	TPU
SONGNOX® DSTDP																
SONGNOX® DLTDP																
SONGNOX® DMTDP																
SONGNOX® DTDTP																

 Recommended  
 Suitable

## Hindered Amine Light Stabilizers (HALS)

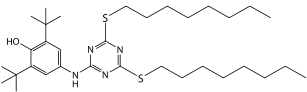
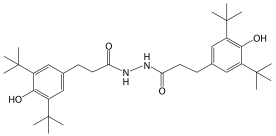
	ABS	PC/ABS	PC	PU Fibers	Polyamides	Polyesters	Polyethylene	Polypropylene	Polystyrene	Polyurethane	PVC	Elastomers	Acrylics	Polyacetal	TPU
SABOSTAB® UV 40															
SABOSTAB® UV 62															
SABOSTAB® UV 65															
SABOSTAB® UV 70															
SABOSTAB® UV 91															
SABOSTAB® UV 91 50PP															
SABOSTAB® UV 94															
SABOSTAB® UV 119															
SABOSTAB® UV 216															
SABOSTAB® UV 418															
SABOSTAB® UV 228 50PP															

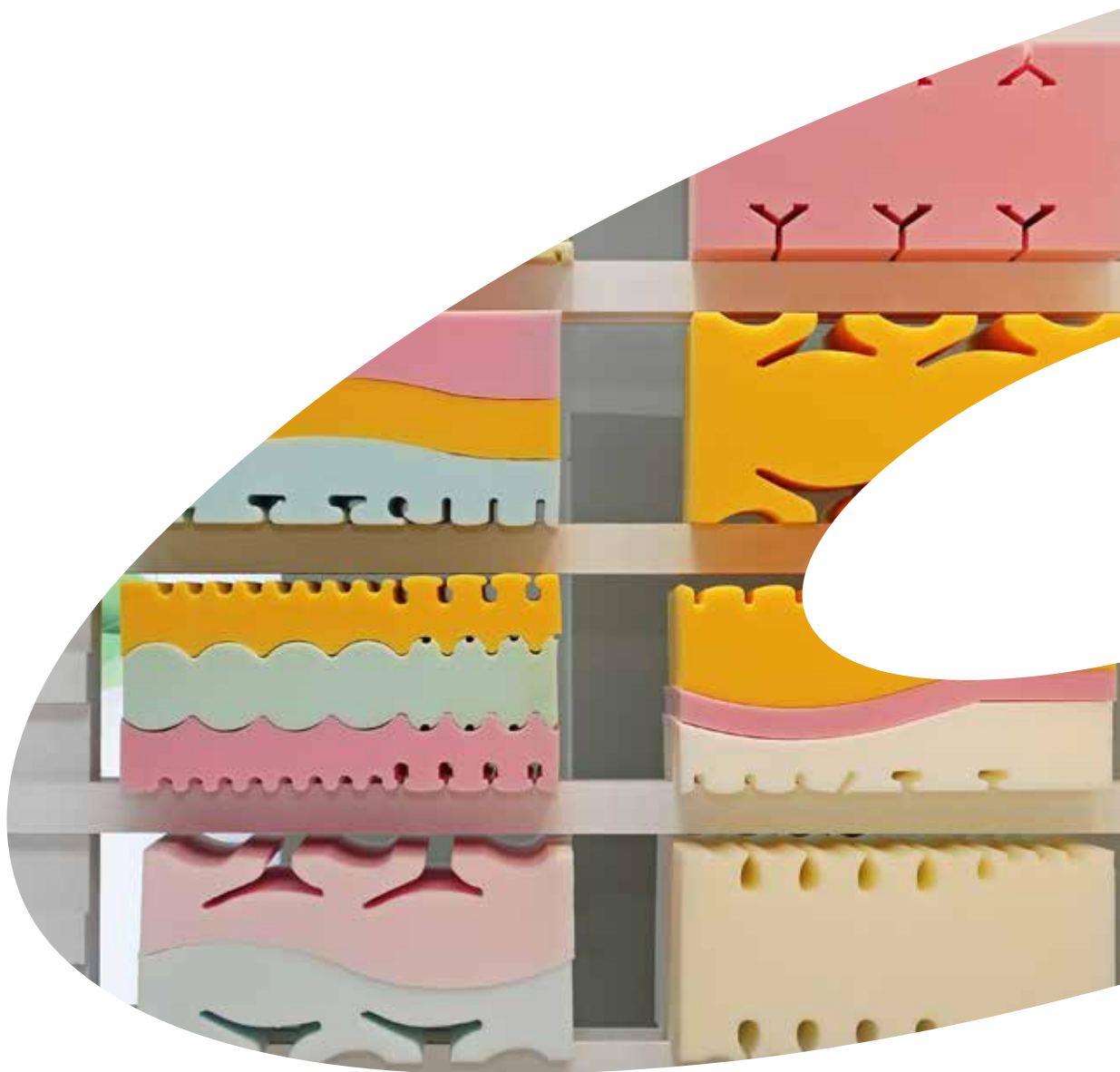
## UV Absorbers (UVAs)

	ABS	PC/ABS	PC	PU Fibers	Polyamides	Polyesters	Polyethylene	Polypropylene	Polystyrene	Polyurethane	PVC	Elastomers	Acrylics	Polyacetal	TPU
SONGSORB® 1000															
SONGSORB® 2340															
SONGSORB® 3260															
SONGSORB® 3270															
SONGSORB® 3280															
SONGSORB® 3290															
SONGSORB® 3600															
SONGSORB® 7120															
SONGSORB® 2908															
SONGSORB® 8100															
SABOSTAB® UV 312															
SONGSORB® 1577															
SONGSORB® 1164															

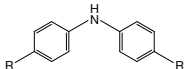
# Phenolic Antioxidants

		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)	TGA (°C, % mass loss)
<b>SONGNOX® 1010</b> Tetrakis[methylene-3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate] methane CAS NO. 6683-19-8 PW, FF, DF		1178	110.0 ~ 125.0	Squalane < 0.05 n-Hexane < 0.1 Acetone < 50.0 Ethanol < 0.1 Toluene 48.0 Xylene 24.2 Ethyl acetate > 50.0	353 5% 370 10% 425 50%
<b>SONGNOX® 1076</b> Octadecyl-3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate CAS NO. 2082-79-3 CP, SB, LQ		531	50.0 ~ 55.0	Squalane 0.5 n-Hexane > 50.0 Acetone > 50.0 Ethanol < 0.1 Toluene > 50.0 Xylene > 50.0 Ethyl acetate > 50.0	330 5% 347 10% 387 50%
<b>SONGNOX® 1135</b> Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, C7-9-branched alkyl esters CAS NO. 125643-61-0 LQ		390	—	Squalane > 50.0 n-Hexane > 50.0 Acetone > 50.0 Ethanol > 50.0 Toluene > 50.0 Xylene > 50.0 Ethyl acetate > 50.0	257 5% 278 10% 328 50%
<b>SONGNOX® 2450</b> Triethylene glycol-bis-3-(3-tert-butyl-4-hydroxy-5-methylphenyl) propionate CAS NO. 36443-68-2 PW, FF, DW		587	76.0 ~ 80.0	Squalane < 0.05 n-Hexane < 0.1 Acetone > 50.0 Ethanol 9.0 Toluene 10.0 Xylene 0.5 Ethyl acetate > 50.0	326 5% 345 10% 396 50%
<b>SONGNOX® 3114</b> Tris(3,5-di-tert-butyl-4-hydroxybenzyl) isocyanurate CAS NO. 27676-62-6 PW, FF		784	218.0 ~ 223.0	Squalane < 0.05 n-Hexane < 0.1 Acetone 45.0 Ethanol < 0.1 Toluene 22.0 Xylene 21.0 Ethyl acetate 45.0	330 5% 344 10% 374 50%
<b>SONGNOX® 1035</b> Thiodiethylenebis[3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate] CAS NO. 41484-35-9 PW, FF		643	> 65.0	Squalane < 0.05 n-Hexane 0.8 Acetone > 50.0 Ethanol 1.1 Toluene > 50.0 Xylene > 50.0 Ethyl acetate > 50.0	322 5% 339 10% 375 50%
<b>SONGNOX® 1098</b> N,N'-hexamethylenebis(3,5-di-tert-butyl-4-hydroxyhydrocinnamamide) CAS NO. 23128-74-7 PW, FF		637	156.0 ~ 162.0	Squalane < 0.05 n-Hexane < 0.1 Acetone 2.5 Ethanol 5.5 Toluene < 0.1 Xylene < 0.1 Ethyl acetate 0.7	336 5% 350 10% 418 50%
<b>SONGNOX® 1330</b> 1,3,5-trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene CAS NO. 1709-70-2 PW, FF		775	241.0 ~ 247.0	Squalane < 0.05 n-Hexane 0.9 Acetone 22.0 Ethanol < 0.1 Toluene 30.0 Xylene 22.0 Ethyl acetate 36.0	368 5% 391 10% 446 50%

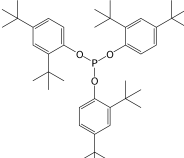
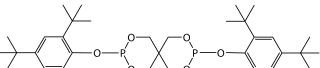
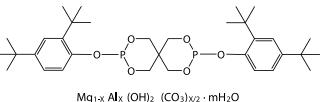
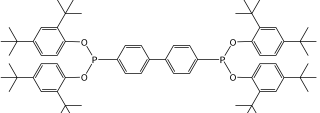
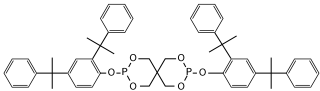
<b>SONGNOX® 5650</b> 2,6-di-tert-butyl-4-(4,6-bis (octylthio)-1,3,5-triazin-2- ylamino) phenol CAS NO. 991-84-4 PW, GR		589	94.0 ~ 96.0	Squalane < 0.05 n-Hexane 6.50 Acetone > 50.0 Ethanol < 0.1 Toluene > 50.0 Xylene > 50.0 Ethyl acetate > 50.0	348 5% 362 10% 401 50%
<b>SONGNOX® 1024</b> 1,2-bis(3,5-di-tert-butyl-4- hydroxyhydrocinnamoyl) hydrazine CAS NO. 32687-78-8 PW, FF, FG		553	221.0 ~ 232.0	Squalane < 0.05 n-Hexane < 0.1 Acetone 5.0 Ethanol 1.0 Toluene < 0.1 Xylene < 0.1 Ethyl acetate 0.6	307 5% 319 10% 359 50%



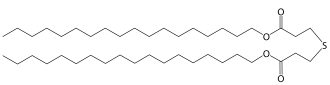
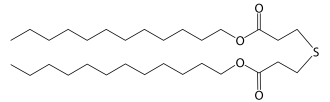
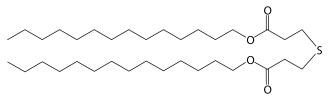
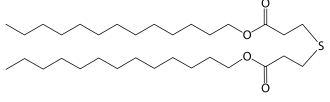
# Aminic Antioxidants

		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)	TGA (°C, % mass loss)
<b>SONGNOX® 5057</b> Mixture of butylated & octylated diphenylamine CAS NO. 68411-46-1 LQ		Mixture of butyl, octyl diphenylamine	–	Squalane > 50 n-Hexane > 50 Acetone > 50 Ethanol > 50 Toluene > 50 Xylene > 50 Ethyl acetate > 50	235 5% 255 10% 320 50%

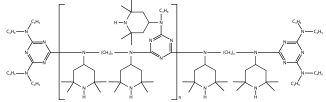
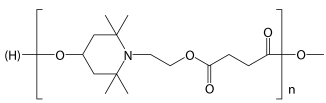
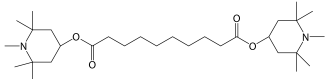
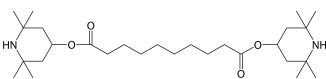
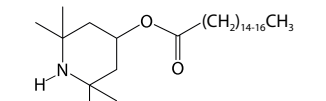
# Phosphite Antioxidants

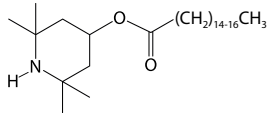
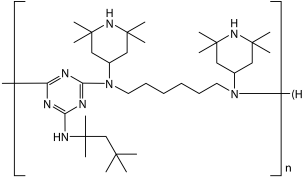
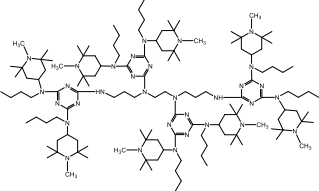
		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)	TGA (°C, % mass loss)
<b>SONGNOX® 1680</b> Tris(2,4-di-tert-butylphenyl) phosphite CAS NO. 31570-04-4 PW, FF		647	181.0 ~ 187.0	Squalane < 0.05 n-Hexane 10.0 Acetone 1.3 Ethanol < 0.1 Toluene 25.0 Xylene 24.0 Ethyl acetate 5.0	286 5% 305 10% 362 50%
<b>SONGNOX® 6260</b> Bis(2,4-di-tert-butylphenyl) pentaerythritol diphosphite CAS NO. 26741-53-7 PW, FF		605	170.0 ~ 180.0	Squalane < 0.05 n-Hexane 2.0 Acetone 3.0 Ethanol < 0.1 Toluene 26.0 Xylene 17.0 Ethyl acetate 0.7	306 5% 329 10% 382 50%
<b>SONGNOX® 6280</b> SONGNOX® 6260: Mg, Al talcite = 93 : 7 CAS NO. 26741-53-7, 11097-59-9 PW, FF	 $Mg_{1-x}Al_x(OH)_2 \cdot (CO_3)_{x/2} \cdot mH_2O$	–	–	–	–
<b>SONGNOX® PQ</b> Phosphorous trichloride, reaction products with 1,1'-biphenyl and 2,4-bis(1,1-dimethylethyl) phenol CAS NO. 119345-01-6 PW, SB		1035	75.0 ~ 100.0	Squalane 0.1 n-Hexane > 50.0 Acetone 9.0 Ethanol < 0.1 Toluene > 50.0 Xylene > 50.0 Ethyl acetate > 50.0	296 5% 325 10% 423 50%
<b>SONGNOX® 9228</b> Bis(2,4-dicumylphenyl) pentaerythritol diphosphite CAS NO. 154862-43-8 PW		852	>228.0	n-Hexane < 0.1 Acetone < 0.1 Ethanol < 0.1 Toluene 4.0 Xylene 5.0 Ethyl acetate < 0.1	400 5% 414 10% 424 50%

# Thioester Antioxidants

		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)	TGA (°C, % mass loss)
<b>SONGNOX® DSTDP</b> Distearyl thiodipropionate CAS NO. 693-36-7 PW, SB		683	63.5 ~ 68.5	Squalane 0.1 n-Hexane 0.1 Acetone < 0.1 Ethanol < 0.1 Toluene 4.6 Xylene 4.1 Ethyl acetate < 0.1	324 5% 348 10% 389 50%
<b>SONGNOX® DLTDP</b> Dilauryl thiodipropionate CAS NO. 123-28-4 PW, SB, LQ		515	38.0 ~ 41.0	Squalane 2.6 n-Hexane > 50.0 Acetone > 50.0 Ethanol 0.3 Toluene > 50.0 Xylene 46.0 Ethyl acetate 29.0	284 5% 313 10% 361 50%
<b>SONGNOX® DMTDP</b> Dimyristyl thiodipropionate CAS NO. 16545-54-3 PW, SB		571	49.0 ~ 54.0	Squalane < 0.05 n-Hexane 8.0 Acetone 2.0 Ethanol < 0.1 Toluene 41.0 Xylene 33.0 Ethyl acetate 4.1	296 5% 316 10% 367 50%
<b>SONGNOX® DTDTP</b> Ditridecyl thiodipropionate CAS NO. 10595-72-9 LQ		543	—	Squalane > 50.0 n-Hexane > 50.0 Acetone > 50.0 Ethanol 5.0 Toluene > 50.0 Xylene > 50.0 Ethyl acetate > 50.0	300 5% 331 10% 374 50%

# Hindered Amine Light Stabilizers (HALS)

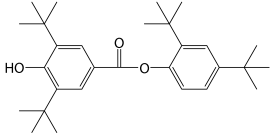
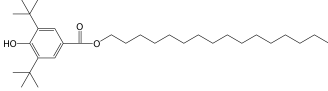
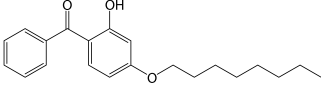
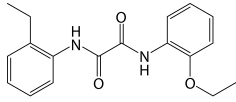
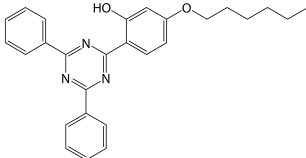
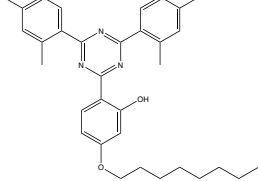
		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)	TGA (°C, % mass loss)
<b>SABOSTAB® UV 40</b> 1,6-hexanediamine, N,N'-bis (2,2,6,6-tetramethyl-4-piperidyl)-, polymer with 2,4,6-trichloro-1,3,5-triazine, reaction products with N-butyl-1-butanamine and N-butyl-2,2,6,6-tetramethyl-4-piperidinamine CAS NO. 192268-64-7 MB		2600 ~ 3400	120.0 ~ 150.0	n-Hexane > 50.0 Acetone > 50.0 Water < 0.0001	390 5% 420 10%
<b>SABOSTAB® UV 62</b> Butanedioic acid, 1,4-dimethyl ester, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidine-ethanol CAS NO. 65447-77-0 PW, BD		3100 ~ 4000	(Softening) 50.0 ~ 70.0	Squalane < 0.05 n-Hexane < 0.1 Acetone 39.0 Ethanol < 0.1 Toluene 7.1 Xylene 35.0 Ethyl acetate 21.0	334 5% 342 10% 366 50%
<b>SABOSTAB® UV 65</b> Bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate CAS NO. 41556-26-7 LQ		509	—	Squalane > 50.0 n-Hexane > 50.0 Acetone > 50.0 Ethanol > 50.0 Toluene > 50.0 Xylene > 50.0 Ethyl acetate > 50.0	265 5% 293 10% 347 50%
<b>SABOSTAB® UV 70</b> Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate CAS NO. 52829-07-9 GR		481	81.0 ~ 85.0	Squalane < 0.05 n-Hexane < 0.1 Acetone 35.0 Ethanol > 50.0 Toluene > 50.0 Xylene 49.0 Ethyl acetate 38.1	249 5% 264 10% 301 50%
<b>SABOSTAB® UV 78</b> Mixture of SABOSTAB® UV 62 and SABOSTAB® UV 94 BD	SABOSTAB® UV 62 : SABOSTAB® UV 94 = 1 : 1	—	—	—	—
<b>SABOSTAB® UV 91</b> 2,2,6,6-tetramethylpiperidine-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidine-4-yl-octadecanoate CAS NO. 86403-32-9 (EU) 167078-06-0 (rest of the world) SL		—	> 28.0	Squalane 1.0 n-Hexane 0.5 Acetone 1.5 Ethanol 8.5 Toluene 29.0 Xylene 23.2 Ethyl acetate 2.5	227 5% 241 10% 278 50%

<b>SABOSTAB® UV 91 50PP</b>  2,2,6,6-tetramethylpiperidine-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidine-4-yl-octadecanoate  CAS NO. 86403-32-9 (EU) 167078-06-0 (rest of the world)  GR		—	—	n-Hexane 49.0 Acetone 2.2 Ethanol 37.0 Toluene 25.0 Ethyl acetate 4.0 Water < 0.01	248 5% 261 10%
<b>SABOSTAB® UV 94</b>  1,6-hexanediamine, N,N'-bis (2,2,6,6-tetramethyl-4-piperidyl)-, polymer with 2,4,6-trichloro-1,3,5-triazine, reaction products with 2,4,4-trimethyl-2-pentanamine  CAS NO. 71878-19-8 BD		2000 ~3100	(Softening) 100.0 ~ 135.0	Squalane < 0.05 n-Hexane 6.0 Acetone > 50.0 Ethanol < 0.1 Toluene > 50.0 Xylene > 50.0 Ethyl acetate > 50.0	403 5% 426 10% 472 50%
<b>SABOSTAB® UV 119</b>  1,3,5-triazine-2,4,6-triamine, N2,N2'-1,2-ethanediylbis [N2-[3-[[4,6-bis[butyl (1,2,2,6,6-pentamethyl-4-piperidyl)amino]-1,3,5-triazin-2-yl]amino]propyl]-N',N''-dibutyl-N',N''-bis (1,2,2,6,6-pentamethyl-4-piperidyl)-  CAS NO. 106990-43-6 PS		2286	115.0 ~ 150.0	Squalane < 0.05 n-Hexane < 0.1 Acetone 0.2 Ethanol < 0.1 Toluene 25.0 Xylene 24.0 Ethyl acetate 0.9	362 5% 381 10% 457 50%
<b>SABOSTAB® UV 216</b>	Superior light- and long-term thermal stabilizer for greenhouse films applications in presence of pesticides; inherent highly permanent UV absorbance.				
<b>SABOSTAB® UV 418</b>	Superior light- and long-term thermal stabilizer for greenhouse films applications in presence of pesticides.				
<b>SABOSTAB® UV 228 50PP</b>	For automotive interior use (e.g., dashboards or door panels); for building and construction applications (e.g., TPO roofing membranes).				



# UV Absorbers (UVAs)

		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)		TGA (°C, % mass loss)	
<b>SONGSORB® 1000</b> 2-(2'-hydroxy-5'-methylphenyl) benzotriazole CAS NO. 2440-22-4 PW		225	128.0 ~ 132.0	Squalane	< 0.05		
				n-Hexane	< 0.1	225	5%
				Acetone	3.0	242	10%
				Ethanol	< 0.1	289	50%
				Toluene	7.1		
				Xylene	6.1		
				Ethyl acetate	5.1		
<b>SONGSORB® 2340</b> 2-[2-hydroxy-3,5-di(1,1-dimethylbenzyl) phenyl]-2H-benzotriazole CAS NO. 70321-86-7 PW, FF		448	137.0 ~ 141.0	Squalane	< 0.05		
				n-Hexane	< 0.1	337	5%
				Acetone	2.5	357	10%
				Ethanol	< 0.1	409	50%
				Toluene	18.1		
				Xylene	13.1		
				Ethyl acetate	5.1		
<b>SONGSORB® 3260</b> 2-(2'-hydroxy-3'-tert-butyl-5'-methylphenyl)-5-chlorobenzotriazole CAS NO. 3896-11-5 PW		316	138.0 ~ 141.0	Squalane	0.7		
				n-Hexane	1.5	217	5%
				Acetone	1.5	232	10%
				Ethanol	0.1	287	50%
				Toluene	10.4		
				Xylene	11.8		
				Ethyl acetate	3.2		
<b>SONGSORB® 3270</b> 2-(2'-hydroxy-3',5'-di-tert-butylphenyl)-5-chlorobenzotriazole CAS NO. 3864-99-1 PW		358	154.0 ~ 157.0	Squalane	0.9		
				n-Hexane	4.0	223	5%
				Acetone	2.0	239	10%
				Ethanol	0.1	290	50%
				Toluene	23.3		
				Xylene	20.6		
				Ethyl acetate	6.2		
<b>SONGSORB® 3280</b> 2-(2'-hydroxy-3',5'-di-tert-amylphenyl)benzotriazole CAS NO. 25973-55-1 PW		352	80.0 ~ 88.0	Squalane	3.3		
				n-Hexane	20.0	222	5%
				Acetone	8.0	236	10%
				Ethanol	0.3	283	50%
				Toluene	< 50.0		
				Xylene	< 50.0		
				Ethyl acetate	30.0		
<b>SONGSORB® 3290</b> 2-(2H-benzotriazole-2-yl)-4-(1,1,3,3-tetramethylbutyl) phenol CAS NO. 3147-75-9 PW, FF		323	103.0 ~ 105.0	Squalane	0.3		
				n-Hexane	6.0	223	5%
				Acetone	11.5	243	10%
				Ethanol	< 0.1	302	50%
				Toluene	44.7		
				Xylene	49.0		
				Ethyl acetate	21.3		
<b>SONGSORB® 3600</b> Bis[2-hydroxy-5-tert-octyl-3-(benzotriazole-2-yl)phenyl] methane CAS NO. 103597-45-1 PW, FF		659	192.0 ~ 198.0	Squalane	< 0.05		
				n-Hexane	< 0.1	369	5%
				Acetone	< 0.1	393	10%
				Ethanol	< 0.1	449	50%
				Toluene	3.7		
				Xylene	2.6		
				Ethyl acetate	0.4		

<b>SONGSORB® 7120</b> 2,4-di-tert-butylphenyl-4'-hydroxy-3',5'-di-tert-butylbenzoate CAS NO. 4221-80-1 PW		439	194.0 ~ 197.0	Squalane < 0.05 n-Hexane 0.8 Acetone 11.0 Ethanol 0.3 Toluene 16.4 Xylene 10.0 Ethyl acetate 13.2	252 268 318	5% 10% 50%
<b>SONGSORB® 2908</b> Hexadecyl-3,5-di-tert-butyl-4-hydroxybenzoate CAS NO. 67845-93-6 PW		475	55.0 ~ 65.0	Squalane 0.9 n-Hexane 35.0 Acetone 14.0 Ethanol 0.6 Toluene > 50.0 Xylene > 50.0 Ethyl acetate 26.0	271 288 349	5% 10% 50%
<b>SONGSORB® 8100</b> 2-hydroxy-4-n-octoxybenzophenone CAS NO. 1843-05-6 PW		326	> 47.0	Squalane 0.3 n-Hexane 18.0 Acetone > 50.0 Ethanol 1.0 Toluene > 50.0 Xylene > 50.0 Ethyl acetate > 50.0	280 297 344	5% 10% 50%
<b>SABOSTAB® UV 312</b> 2-ethyl-2'-ethoxy-oxanilide CAS NO. 23949-66-8 PW		312	124.0 ~ 128.0	Squalane < 0.05 n-Hexane < 0.1 Acetone 4.0 Ethanol < 0.1 Toluene 7.3 Xylene 5.2 Ethyl acetate 5.0	266 286 333	5% 10% 50%
<b>SONGSORB® 1577</b> 2-(4,6-diphenyl-1,3,5-triazin-2-yl)-5-hexyloxyphenol CAS NO. 147315-50-2 PW		425	147.0 ~ 151.0	Squalane < 0.05 n-Hexane < 0.1 Acetone 0.2 Ethanol < 0.1 Toluene 6.3 Xylene 5.5 Ethyl acetate 0.8	313 329 378	5% 10% 50%
<b>SONGSORB® 1164</b> 2-[4,6-bis(2,4-dimethylphenyl)-1,3,5-triazin-2-yl]-5-(octyloxy)phenol CAS NO. 2725-22-6 PW		509	88.0 ~ 93.0	n-Hexane 0.6 Acetone 0.2 Ethanol 0.1 Toluene 29.1 Xylene 21.8 Ethyl acetate 2.6	349 371 419	5% 10% 50%

All SABOSTAB® products are exclusively produced by SABO S.p.A.



# Binary Blends

Product Name	SONGNOX® 1680	SONGNOX® 1010	SONGNOX® 1076	SONGNOX® 3114	Physical Forms
SONGNOX® 11B	1	1	0	0	PW, FF
SONGNOX® 21B	2	1	0	0	PW, FF
SONGNOX® 31B	3	1	0	0	PW, FF
SONGNOX® 35B	3	5	0	0	PW, FF
SONGNOX® 41B	4	1	0	0	PW, FF
SONGNOX® 43B	4	3	0	0	PW, FF
SONGNOX® 56B	5	6	0	0	PW, FF
SONGNOX® 117B	1	0	1	0	PW, FF
SONGNOX® 217B	2	0	1	0	PW, FF
SONGNOX® 317B	3	0	1	0	PW, FF
SONGNOX® 417B	4	0	1	0	PW, FF
SONGNOX® 147B	1	0	4	0	PW, FF
SONGNOX® 311B	1	0	0	1	PW, FF
SONGNOX® 321B	2	0	0	1	PW, FF
SONGNOX® 1711B	0	1	1	0	PW, FF

The numbers shown in the tables refer to the ratios of the ingredients in the binary blends.

Product Name	SONGNOX® 1135	SONGNOX® 5057	Physical Forms
SONGNOX® 5721	2	1	LQ

The numbers shown in the tables refer to the ratios of the ingredients in the binary blends.

## One Pack System Blends (OPS)

**SONGNOX® OPS (One Pack Systems)** are customized additive blends that are available in different physical forms. OPS products increase operational efficiency and can lower overall additivition costs.

## SONGXTEND® – Application-Specific Stabilizers

- **SONGXTEND® 2124:**  
High heat stabilization in polypropylene-based automotive applications
- **SONGXTEND® 2151 / SONGXTEND® 2152:**  
Stabilizers for polypropylene random copolymers (PP-R) water pipes
- **SONGXTEND® 2721:**  
Top-up, quality enhancing stabilization system for more sustainable PP recycled resins

# Standard Packaging

- **Antioxidants, solids:** 20-kg PE bag  
(20-kg aluminum coated bags for SONGNOX® 6260, SONGNOX® 6280 and SONGNOX® PQ)  
500-kg big bag  
for US and selected products only: 50-kg fiber drum
- **Antioxidants, liquids:** 200-kg steel drum  
900-kg IBC  
20 MT ISO tank
- **Thioesters:** 20-kg PE bag
- **Hindered amine light stabilizers:** 25-kg PE bag  
(for SABOSTAB® UV 119: 15-kg PE bag; for SABOSTAB® UV 312: 20-kg PE bag)
- **UV absorbers:** 20-kg bag in a carton  
25-kg bag in a carton

Standard pallet size is CP1.

## Key to Abbreviations of Physical Forms

- |                         |                               |                                 |                             |
|-------------------------|-------------------------------|---------------------------------|-----------------------------|
| • <b>PW:</b> Powder     | • <b>DW:</b> Dispersion       | • <b>BD:</b> Beads              | • <b>GR:</b> Granules       |
| • <b>SB:</b> Semi-Beads | • <b>MB:</b> Micro Beads      | • <b>DF:</b> Dust Free Flow     | • <b>FG:</b> Fine Grind     |
| • <b>SL:</b> Solid      | • <b>FC:</b> Fusion Crystals  | • <b>CP:</b> Crystalline Powder | • <b>VL:</b> Viscous Liquid |
| • <b>FF:</b> Free Flow  | • <b>LQ:</b> Liquid or Molten | • <b>PS:</b> Pastilles          |                             |



## Transportation and Storage

As a general guideline, we recommend storing the products mentioned in this brochure in their original sealed containers in a cold and dry place. For more detailed information on a specific product, please refer to the corresponding **Technical Data Sheet**.

By law, a number of chemical products must be labeled in respect of transportation, storage and handling. Thus corresponding care is a prerequisite for their appropriate handling. Furthermore, local legal regulations may apply.

Detailed information is given in the respective **Safety Data Sheets**.

# About SONGWON Industrial Group

A leader in the development, production and supply of specialty chemicals, SONGWON's products touch your life every day, everywhere. Since 1965, we've been driving innovation, partnering for progress and paving the way for a better, more sustainable tomorrow with 360° customized solutions.

Headquartered in South Korea, SONGWON is the 2<sup>nd</sup> largest manufacturer of polymer stabilizers worldwide. With Group companies and world-class manufacturing facilities across the globe, we are dedicated to providing customers in over 60 countries with high-performance products that meet individual needs and the best levels of service.

For further information, please go to:  
**[www.songwon.com](http://www.songwon.com)**





Check out our  
official website

For further information, please go to:

**[www.songwon.com](http://www.songwon.com)**

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SONGWON provides customers with warranties and representations as to the chemical or technical specifications, compositions and/or the suitability for use for any particular purpose exclusively in individual written agreements.

The facts and figures contained herein have been carefully compiled to the best of SONGWON's knowledge but are essentially intended for informational purposes only.

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