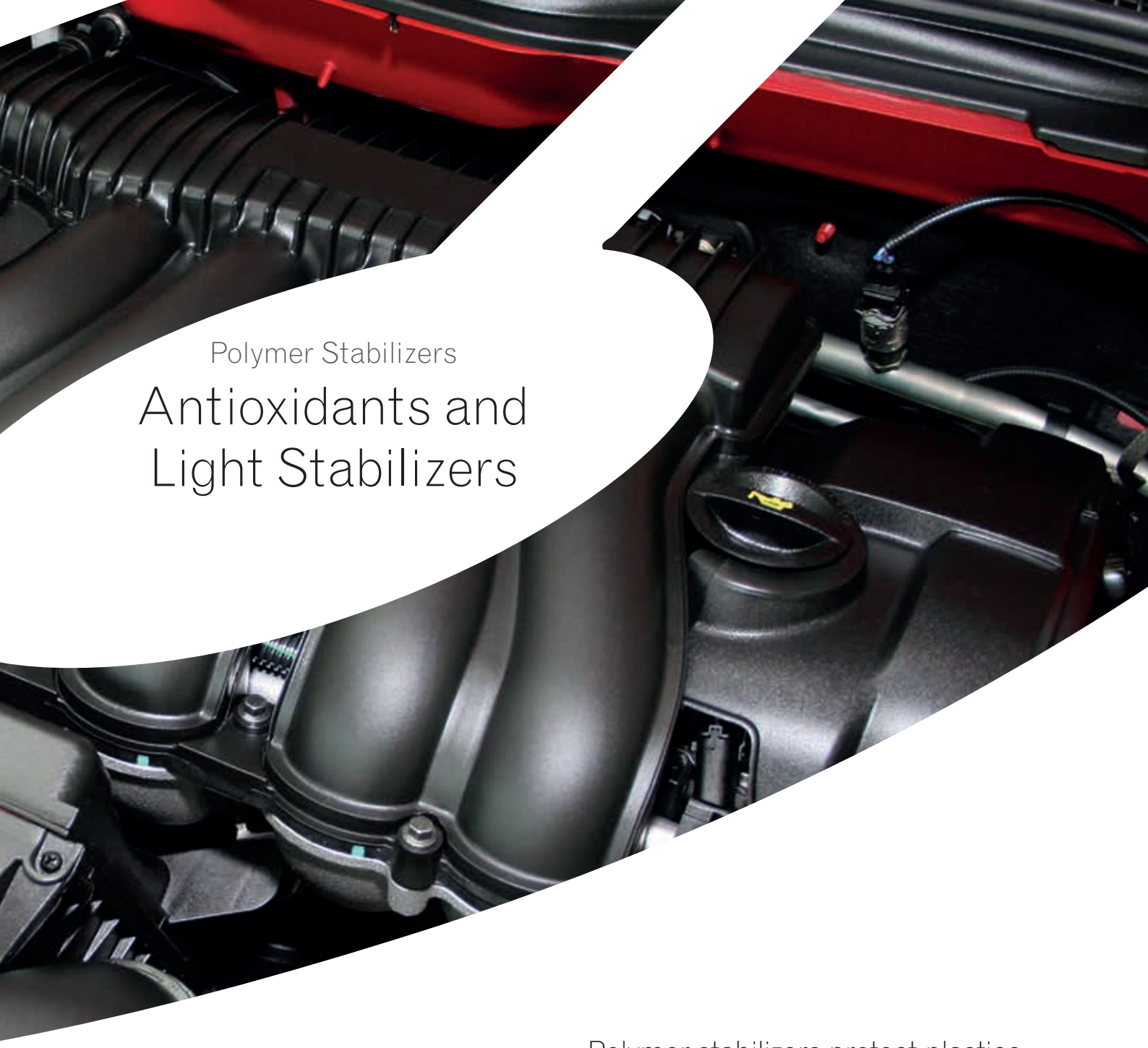

Polymer Stabilizers

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 ever-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™**

SONGWON

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	■	■			■		■	■				■			

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
SABO®STAB UV 40					■		■	■		■	■	■			■
SABO®STAB UV 62				■	■	■	■	■	■		■	■		■	
SABO®STAB UV 65	■				■			■	■	■	■	■			■
SABO®STAB UV 70	■				■	■	■	■	■		■	■		■	■
SABO®STAB UV 91					■		■	■		■				■	
SABO®STAB UV 91 50PP							■	■				■			
SABO®STAB UV 94	■				■		■	■		■	■			■	
SABO®STAB UV 119	■	■			■	■	■	■	■	■	■	■	■	■	■
SABO®STAB UV 216							■								
SABO®STAB 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® 9280	■			■	■		■	■							
SONGSORB® 7120	■						■	■		■	■	■	■		■
SONGSORB® 2908							■	■			■	■			
SONGSORB® 8100	■	■	■				■	■	■	■	■	■	■		
SABO®STAB UV 312					■	■		■		■	■		■		
SONGSORB® 1577		■	■		■										

All SABO®STAB products are exclusively produced by SABO S.p.A.
All SABO®STAB technical information is provided by SABO S.p.A.

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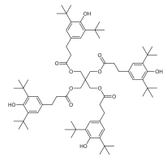
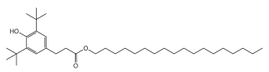
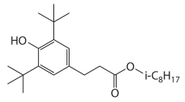
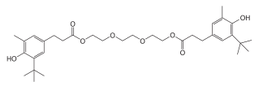
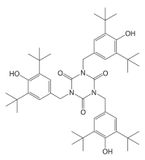
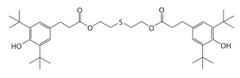
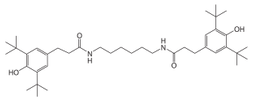
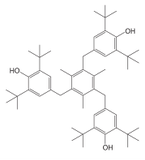
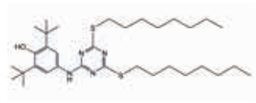
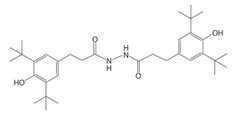
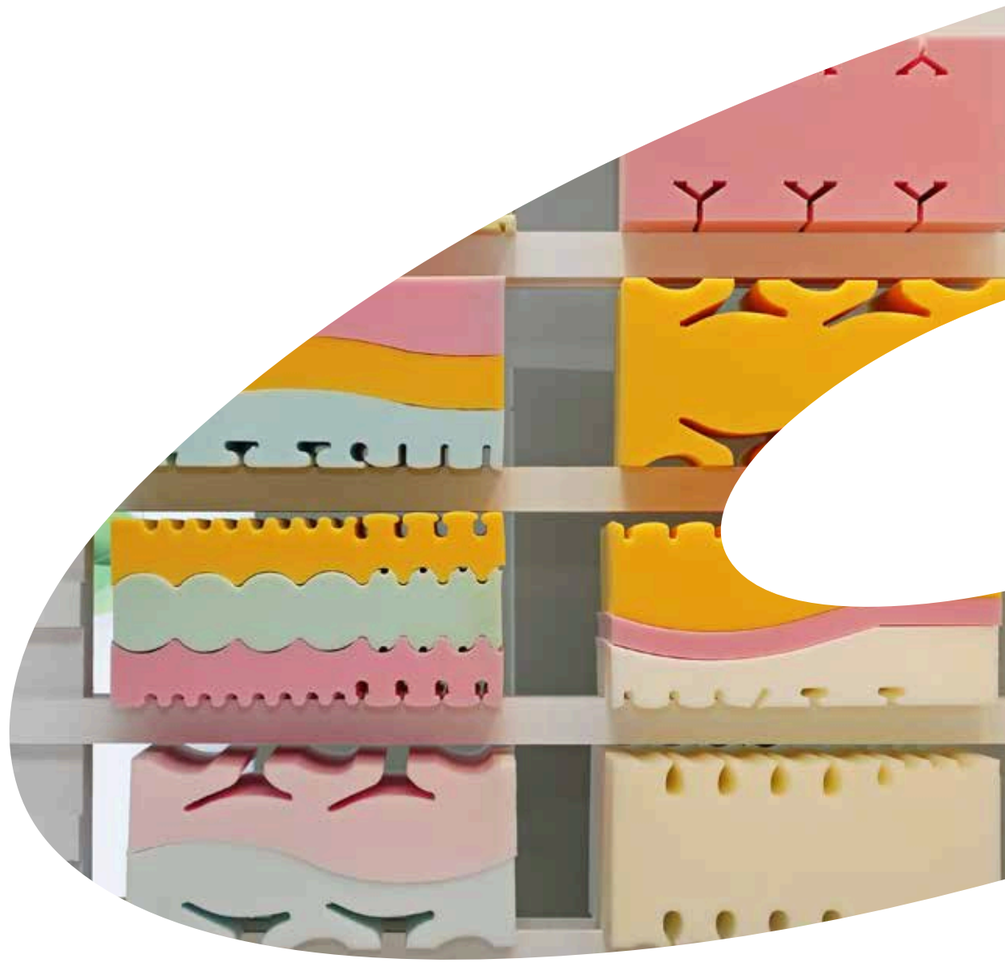
Phenolic Antioxidants

		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)		TGA (°C, % mass loss)	
SONGNOX® 1010 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 < 50.0 < 0.1 48.0 24.2 > 50.0	353 370 425	5% 10% 50%
SONGNOX® 1076 Octadecyl-3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate CAS NO. 2082-79-3 PW, CP, SB, LQ		531	50.0 ~ 55.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	0.5 > 50.0 > 50.0 < 0.1 > 50.0 > 50.0 > 50.0	330 347 387	5% 10% 50%
SONGNOX® 1135 Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, C7-9-branched alkyl esters CAS NO. 125643-61-0 LQ		390	–	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	> 50.0 > 50.0 > 50.0 > 50.0 > 50.0 > 50.0 > 50.0	257 278 328	5% 10% 50%
SONGNOX® 2450 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 > 50.0 9.0 10.0 0.5 > 50.0	326 345 396	5% 10% 50%
SONGNOX® 3114 Tris(3,5-di-tert-butyl-4-hydroxybenzyl) isocyanurate CAS NO. 27676-62-6 PW, FF		784	218.0 ~ 223.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 45.0 < 0.1 22.0 21.0 45.0	330 344 374	5% 10% 50%
SONGNOX® 1035 Thiodiethylenebis[3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate] CAS NO. 41484-35-9 PW, FF		643	> 65.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 0.8 > 50.0 1.1 > 50.0 > 50.0 > 50.0	322 339 375	5% 10% 50%
SONGNOX® 1098 N,N'-hexamethylenebis(3,5-di-tert-butyl-4-hydroxyhydrocinnamamide) CAS NO. 23128-74-7 PW, FF, GR, DW		637	156.0 ~ 162.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 2.5 5.5 < 0.1 < 0.1 0.7	336 350 418	5% 10% 50%
SONGNOX® 1330 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 0.9 22.0 < 0.1 30.0 22.0 36.0	368 391 446	5% 10% 50%
SONGNOX® 5650 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 ~ 96	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 6.50 > 50.0 < 0.1 > 50.0 > 50.0 > 50.0	348.35 361.67 401.26	5% 10% 50%
SONGNOX® 1024 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 5.0 1.0 < 0.1 < 0.1 0.6	307 319 359	5% 10% 50%



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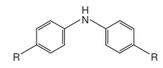
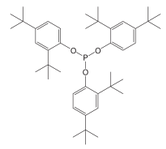
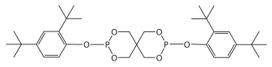
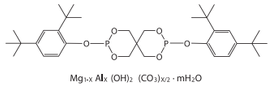
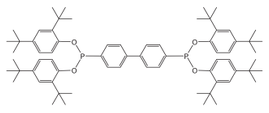
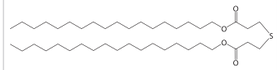
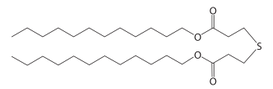
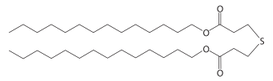
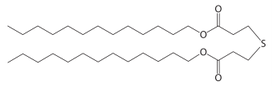
Aminic Antioxidants

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

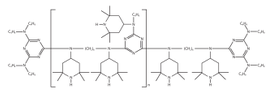
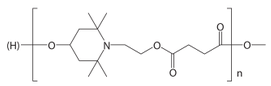
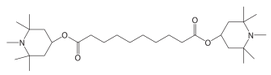
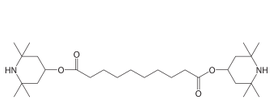
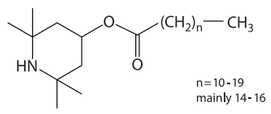
Phosphite Antioxidants

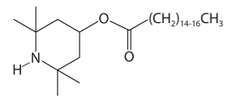
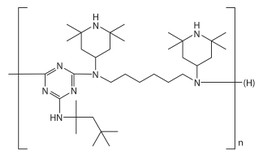
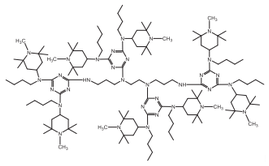
		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)		TGA (°C, % mass loss)	
SONGNOX® 1680 Tris(2,4-di-tert-butylphenyl) phosphite CAS NO. 31570-04-4 PW, FF		647	181.0 ~ 187.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 10.0 1.3 < 0.1 25.0 24.0 5.0	286 305 362	5% 10% 50%
SONGNOX® 6260 Bis(2,4-di-tert-butylphenyl) pentaerythritol diphosphite CAS NO. 26741-53-7 PW, FF		605	170.0 ~ 180.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 2.0 3.0 < 0.1 26.0 17.0 0.7	306 329 382	5% 10% 50%
SONGNOX® 6280 SONGNOX® 6260: Mg, Al talcite = 93 : 7 CAS NO. 26741-53-7, 11097-59-9 PW, FF		–	–	–		–	
SONGNOX® PQ 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	0.1 > 50.0 9.0 < 0.1 > 50.0 > 50.0 > 50.0	296 325 423	5% 10% 50%

Thioester Antioxidants

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

Hindered Amine Light Stabilizers (HALS)

		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)		TGA (°C, % mass loss)	
SABO®STAB UV 40 1,6-hexanediamine, N,N'-bis (2,2,6,6-tetramethyl-4-piperidinyl)-,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 Acetone Water	> 50.0 > 50.0 < 0.0001	390 420	5% 10%
SABO®STAB UV 62 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 39.0 < 0.1 7.1 35.0 21.0	334 342 366	5% 10% 50%
SABO®STAB UV 65 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	> 50.0 > 50.0 > 50.0 > 50.0 > 50.0 > 50.0 > 50.0	265 293 347	5% 10% 50%
SABO®STAB UV 70 Bis(2,2,6,6-tetramethyl-4-piperidinyl) sebacate CAS NO. 52829-07-9 GR		481	81.0 ~ 85.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 35.0 > 50.0 > 50.0 49.0 38.1	249 264 301	5% 10% 50%
SABO®STAB UV 78 Mixture of SABO®STAB UV 62 and SABO®STAB UV 94 BD	SABO®STAB UV 62 : SABO®STAB UV 94 = 1 : 1	–	–	–		–	
SABO®STAB UV 91 Fatty acids, C12-21 and C18-unsaturated, 2,2,6,6-tetramethyl-4-piperidinyl esters CAS NO. 167078-06-0 SL		–	> 28.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	1.0 0.5 1.5 8.5 29.0 23.2 2.5	227 241 278	5% 10% 50%

SABO®STAB UV 91 50PP 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 Acetone Ethanol Toluene Ethyl acetate Water	49.0 2.2 37.0 25.0 4.0 < 0.01	248 261	5% 10%
SABO®STAB UV 94 1,6-hexanediamine, N,N'-bis (2,2,6,6-tetramethyl-4-piperidinyl)-, 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 6.0 > 50.0 < 0.1 > 50.0 > 50.0 > 50.0	403 426 472	5% 10% 50%
SABO®STAB UV 119 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-piperidinyl)amino]-1,3,5-triazin-2-yl]amino]propyl]-N',N"-dibutyl-N',N"-bis (1,2,2,6,6-pentamethyl-4-piperidinyl)- CAS NO. 106990-43-6 PS		2286	115.0 ~ 150.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 0.2 < 0.1 25.0 24.0 0.9	362 381 457	5% 10% 50%
SABO®STAB UV 216	Superior light- and long-term thermal stabilizer for greenhouse films applications in presence of pesticides						
SABO®STAB UV 228 50PP	For automotive interior use (e.g., dashboards or door panels); for building and construction applications (e.g., TPO roofing membranes)						

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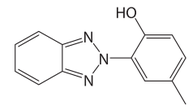
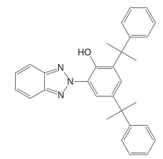
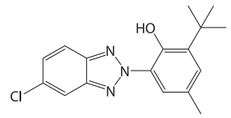
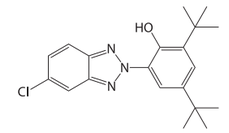
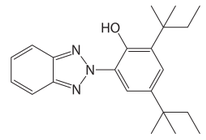
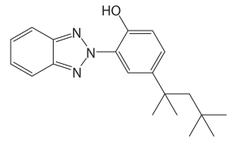
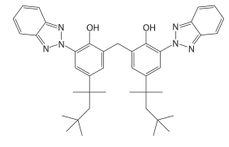
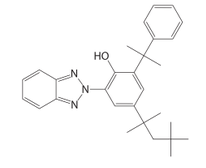
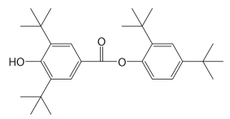
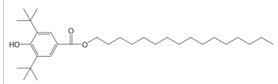
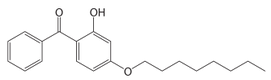
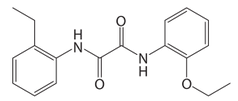
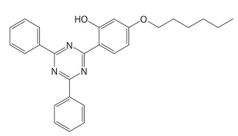
UV Absorbers (UVAs)

		Molecular Weight	Melting Range (°C)	Solubility (g/100 g solvent at 25°C)		TGA (°C, % mass loss)	
SONGSORB® 1000 2-(2'-hydroxy-5'-methylphenyl) benzotriazole CAS NO. 2440-22-4 PW		225	128.0 ~ 132.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 3.0 < 0.1 7.1 6.1 5.1	225 242 289	5% 10% 50%
SONGSORB® 2340 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 2.5 < 0.1 18.1 13.1 5.1	337 357 409	5% 10% 50%
SONGSORB® 3260 2-(2'-hydroxy-3'-tert-butyl-5'-methylphenyl)-5-chlorobenzotriazole CAS NO. 3896-11-5 PW		316	138.0 ~ 141.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	0.7 1.5 1.5 0.1 10.4 11.8 3.2	217 232 287	5% 10% 50%
SONGSORB® 3270 2-(2'-hydroxy-3',5'-di-tert-butylphenyl)-5-chlorobenzotriazole CAS NO. 3864-99-1 PW		358	154.0 ~ 157.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	0.9 4.0 2.0 0.1 23.3 20.6 6.2	223 239 290	5% 10% 50%
SONGSORB® 3280 2-(2'-hydroxy-3',5'-di-tert-amylphenyl)benzotriazole CAS NO. 25973-55-1 PW		352	80.0 ~ 88.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	3.3 20.0 8.0 0.3 < 50.0 < 50.0 30.0	222 236 283	5% 10% 50%
SONGSORB® 3290 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	0.3 6.0 11.5 < 0.1 44.7 49.0 21.3	223 243 302	5% 10% 50%
SONGSORB® 3600 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 n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	< 0.05 < 0.1 < 0.1 < 0.1 3.7 2.6 0.4	369 393 449	5% 10% 50%
SONGSORB® 9280 2-Hydroxy-3-(1,1-dimethylbenzyl)-5-(1,1,3,3-tetramethylbutyl)phenyl]-2H-benzotriazole CAS No. 73936-91-1 PW		442	108.0 ~ 113.0	Squalane n-Hexane Acetone Ethanol Toluene Xylene Ethyl acetate	0.15 10.10 10.20 0.15 > 50 > 50 28.6	254 270 314	5% 10% 50%

SONGSORB® 7120 2,4-di-tert-butylphenyl-4'-hydroxy-3',5'-di-tert-butyl benzoate 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 5% 268 10% 318 50%
SONGSORB® 2908 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 5% 288 10% 349 50%
SONGSORB® 8100 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 5% 297 10% 344 50%
SABO®STAB UV 312 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 5% 286 10% 333 50%
SONGSORB® 1577 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 5% 329 10% 378 50%

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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 additivation costs.

SONGXTEND® – Stabilizer Solutions

- **SONGWON solutions for polypropylene film grades**
  SONGXTEND® 1102
- **SONGWON solutions for the stabilization of polypropylene fiber and thin walled injection molded grades**
  SONGXTEND® 1140, SONGXTEND® 1141
- **SONGWON solution for low VOC automotive applications**
  SONGXTEND® 2124
- **SONGWON solution for Cr-type HDPE blow molding grades**
  SONGXTEND® 1105

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Standard Packaging

- **Antioxidants, Solids:** 20 kg PE Bag
  (20 kg aluminum coated bags for SONGNOX® 6260, 6280 and 621B)
  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 (SONGNOX® 4120: 25 kg Carton Box)
- **Hindered Amine Light Stabilizers:** 25 kg PE Bag
  (for SABO®STAB 119: 15 kg PE Bag; for SABO®STAB 312: 20 kg PE Bag)
- **UV Absorbers:** 20 kg Carton Box
  25 kg Carton Box

Standard pallet size is CP1.

Key to Abbreviations of Physical Forms

- **PW:** Powder
- **SB:** Semi Bead
- **SL:** Solid
- **FF:** Free Flow
- **DW:** Dispersion
- **MB:** Micro Beads
- **FC:** Fusion Crystal
- **LQ:** Liquid or Molten
- **BD:** Beads
- **DF:** Dust Free Flow
- **CP:** Crystalline Powder
- **PS:** Pastilles
- **GR:** Granule
- **FG:** Fine Grind
- **VL:** Viscous Liquid

Transport 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 transport, 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 2nd 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 their individual needs and the best levels of service.

For further information, please go to:
www.songwon.com

SONGWON

Check out our official website

Check out our WeChat account

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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.

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