



Tin Intermediates  
and Catalysts

# Product range selection guide

	Electrodeposition	Urethanes	Electrical conductive films	Glass coatings	Saturated polyesters	Unsaturated polyesters	PVC stabilization	Acry acid esters	Silicones	Dense coatings	Organic chemistry	Drugs
<b>Butyltin Compounds</b>												
SONGCAT™ DBTO	■	■			■	■	■	■	■			
SONGCAT™ MBTC			■	■			■	■		■		
SONGCAT™ TBT							■				■	■

<b>Octyltin Compounds</b>												
SONGCAT™ DOTO	■				■	■	■	■	■			
SONGCAT™ DOTC					■	■	■	■		■	■	
SONGCAT™ TOT							■		■		■	■

<b>Methyltin Compounds</b>												
SONGCAT™ DMTC		■	■	■			■			■		
SONGCAT™ MTW-50		■	■	■			■			■		
SONGCAT™ MTM-70		■								■		

■ Recommended    ■ Suitable

# Tin Intermediates

		Molecular Weight	Sn Content (%)	Specific Gravity	Bulk Density at 20°C	Applications
<b>SONGCAT™ DBTO</b> Di-n-butyltin oxide CAS NO. 818-08-6 PW, DF	$(C_4H_9)_2-Sn=O$	248.9	47.5±0.5	–	approx. 0.6 g/ml (PW) approx. 0.8 g/ml (DF)	<ul style="list-style-type: none"> <li>Intermediate for outstanding heat-resistant and weatherable butyltin PVC stabilizers</li> <li>Catalyst for electrodeposition paints</li> <li>Catalyst for esterification and trans-esterification reaction</li> <li>Raw material for polyurethane catalysts</li> </ul>
<b>SONGCAT™ MBTC</b> Mono-n-butyltin trichloride CAS NO. 1118-46-3 LQ	$C_4H_9-Sn-Cl_3$	282.2	> 41.0	1.70~1.75 g/ml (at 25°C)	–	<ul style="list-style-type: none"> <li>Intermediate for butyltin PVC stabilizers</li> <li>Protection against damage caused by extraneous contact on glass surfaces</li> <li>Humidity reduces stability</li> </ul>
<b>SONGCAT™ TBT</b> Tetra butyltin CAS No. 1461-25-2 LQ	$(C_4H_9)_4-Sn$	347.1	> 33.0	1.06~1.09 g/ml (at 20°C)	–	<ul style="list-style-type: none"> <li>Intermediate for non-toxic FDA-approved butyltin PVC stabilizers</li> <li>Raw material for manufacturing organotin compounds</li> </ul>
<b>SONGCAT™ DOTO</b> Di-n-octyltin oxide CAS NO. 870-08-6 PW, DF	$(C_8H_{17})_2-Sn=O$	361.1	32.7±0.5	–	approx. 0.6 g/ml (PW) approx. 0.6 g/ml (DF) approx. 0.2 g/ml (FPW)	<ul style="list-style-type: none"> <li>Intermediate for non-toxic FDA-approved octyltin PVC stabilizers</li> <li>Catalyst for electrodeposition paints</li> <li>Raw material for polyurethane catalysts</li> </ul>
<b>SONGCAT™ DOTC</b> Di-octyltin dichloride CAS NO. 3542-36-7 SL	$(C_8H_{17})_2-Sn-Cl_2$	416.1	28.0±1.0	1.15~1.18 g/ml (at 50°C)	–	<ul style="list-style-type: none"> <li>Intermediate for non-toxic FDA-approved octyltin PVC stabilizers</li> <li>Raw material for manufacturing organotin compounds</li> </ul>
<b>SONGCAT™ TOT</b> Tetra-octyltin CAS NO. 3590-84-9 LQ	$(C_8H_{17})_4-Sn$	571.6	> 20.0	0.92~0.99 g/ml (at 20°C)	–	<ul style="list-style-type: none"> <li>Intermediate for non-toxic FDA-approved octyltin PVC stabilizers</li> <li>Raw material for manufacturing organotin compounds</li> </ul>
<b>SONGCAT™ DMTC</b> Dimethyltin dichloride CAS NO. 753-73-1 SL	$(CH_3)_2-Sn-Cl_2$	219.7	> 53.0	–	–	<ul style="list-style-type: none"> <li>Intermediate for methyltin PVC stabilizers</li> <li>Raw material for polyurethane catalysts</li> <li>Coating material for glass and protection against damage on glass surfaces</li> <li>Sourcing material for developing electrically conductive thin film</li> </ul>
<b>SONGCAT™ MTW-50</b> Dimethyltin dichloride and water mixture LQ	$(CH_3)_2-Sn-Cl_2$ $H_2O$	–	25.0~28.0	1.39~1.43 g/ml (at 25°C)	–	<ul style="list-style-type: none"> <li>Used for manufacturing of organotin compounds</li> <li>Intermediate for methyltin PVC stabilizers</li> <li>Coating material for glass and protection against damage on glass surfaces</li> <li>Sourcing material for developing electrically conductive thin film</li> </ul>
<b>SONGCAT™ MTM-70</b> Dimethyltin dichloride and MeOH mixture LQ	$(CH_3)_2-Sn-Cl_2$ $CH_3OH$	–	36.0~38.0	1.40~1.48 g/ml (at 25°C)	–	<ul style="list-style-type: none"> <li>Suitable for manufacturing organotin compounds</li> <li>Suitable for polyurethane form baking for carpet</li> </ul>

# Tin Catalysts

	Dosage (PHR)	Characteristics	Applications
<b>SONGSTAB™ TL-100</b> Dibutyltin dilaurate LQ	(100 ~ 2000 ppm for Catalyst) 0.5 ~ 1.5	<ul style="list-style-type: none"> <li>• Pure dibutyltin dilaurate</li> <li>• Slow cure catalyst for RTV (room temperature vulcanizing) silicone systems and PU foams and elastomers</li> <li>• Excellent initial lubricity and weatherability</li> <li>• Initial colorless products are obtainable when used in combination with other organotin, liquid organic stabilizers</li> </ul>	<ul style="list-style-type: none"> <li>• Catalyst for polyurethanes and silicone RTV</li> <li>• Rigid, flexible PVC calenderings and extrudings</li> </ul>
<b>SONGSTAB™ TL-190</b> Dibutyltin dilaurate LQ	(100 ~ 2000 ppm for Catalyst) 0.5 ~ 1.5	<ul style="list-style-type: none"> <li>• Dibutyltin dilaurate</li> <li>• Slow cure catalyst for RTV (room temperature vulcanizing) silicone systems and PU foams and elastomers</li> <li>• Much lower freezing temperature than TL-100</li> <li>• Excellent initial lubricity and weatherability</li> <li>• Initial colorless products are obtainable when used in combination with other organotin, liquid organic stabilizers</li> </ul>	<ul style="list-style-type: none"> <li>• Catalyst for polyurethanes and silicone RTV</li> <li>• Rigid, flexible PVC calenderings and extrudings</li> </ul>
<b>SONGSTAB™ BT-300</b> Mono butyltin tris (2-ethylhexanoate) LQ	100 ~ 2,000 ppm	<ul style="list-style-type: none"> <li>• Catalyst has a moderate activity that allows a longer pot life for silicone emulsions and adhesives that cure at room temperature</li> </ul>	<ul style="list-style-type: none"> <li>• Catalyst for polyesters and silicone RTV</li> </ul>
<b>SONGSTAB™ TL-710</b> Dioctyltin dilaurate LQ	100 ~ 2000 ppm	<ul style="list-style-type: none"> <li>• Slow cure catalyst for RTV (room temperature vulcanizing) silicone systems and PU foams and elastomers</li> <li>• Less moisture sensitivity and higher activation temperature than conventional dibutyltin dilaurate</li> </ul>	<ul style="list-style-type: none"> <li>• Catalyst for polyurethanes and silicone RTV</li> </ul>
<b>SONGSTAB™ TL-720</b> Dioctyltin dilaurate LQ	100 ~ 2000 ppm	<ul style="list-style-type: none"> <li>• Slow cure catalyst for RTV (room temperature vulcanizing) silicone systems and PU foams and elastomers</li> <li>• Less moisture sensitivity and higher activation temperature than conventional dibutyltin dilaurate</li> <li>• Much lower freezing temperature than TL-710</li> </ul>	<ul style="list-style-type: none"> <li>• Catalyst for polyurethanes and silicone RTV</li> </ul>
<b>SONGSTAB™ T-320</b> Dioctyltin di-neodecanoate LQ	100 ~ 2000 ppm	<ul style="list-style-type: none"> <li>• Slow cure catalyst for RTV (room temperature vulcanizing) silicone systems and PU foams and elastomers</li> <li>• Less moisture sensitivity and higher activation temperature than conventional dibutyltin dilaurate</li> </ul>	<ul style="list-style-type: none"> <li>• Catalyst for polyurethanes and silicone RTV</li> </ul>
<b>SONGSTAB™ MT-710</b> Dimethyltin di-neodecanoate LQ	100 ~ 2000 ppm	<ul style="list-style-type: none"> <li>• Moderate to rapid cure catalyst for RTV (room temperature vulcanizing) silicone systems and PU foams and elastomers</li> <li>• When evaluating MT-710 in comparison to dibutyltin dilaurate (TL-100), an initial amount of one third is recommended</li> </ul>	<ul style="list-style-type: none"> <li>• Catalyst for polyurethanes and silicone RTV</li> </ul>



# TIN CATALYSTS

DELIVERING PERFORMANCE

# Specifications overview

## Standard Packaging

- **DBTO, DOTO, Solids:** 20 kg Paper Bag
- **MBTC, Liquids:** 45 kg PE Drum  
50 kg Steel Drum
- **DOTC, MTW-50, MTM-70, Liquids:** 220 kg Steel Drum
- **TOT, Liquids:** 200 kg Steel Drum

## Key to Abbreviations of Physical Forms

- |                        |                               |                                 |                             |
|------------------------|-------------------------------|---------------------------------|-----------------------------|
| ▪ <b>PW:</b> Powder    | ▪ <b>DW:</b> Dispersion       | ▪ <b>BD:</b> Beads              | ▪ <b>GR:</b> Granule        |
| ▪ <b>SB:</b> Semi Bead | ▪ <b>MB:</b> Micro Beads      | ▪ <b>DF:</b> Dust Free Flow     | ▪ <b>FG:</b> Fine Grind     |
| ▪ <b>SL:</b> Solid     | ▪ <b>FC:</b> Fusion Crystal   | ▪ <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          |                             |

## 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

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 one of the 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:  
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