

Thermolite® 176C Butyltin PVC Heat Stabilizer

DESCRIPTION

Thermolite® 176C is a low-cost, high-performance liquid butyltin mercaptide PVC heat stabilizer. **Thermolite® 176C** heat stabilizer is protected under US patent 6,919,392 and all its foreign equivalents.

TYPICAL PROPERTIES

Properties	Typical Values
Form	Clear Oily Liquid, Yellow
Color (Gardner)	2
Viscosity, cs (@25°C)	30
Specific Gravity (@25°C)	0.96
Refractive Index (@25°C)	1.49
% Tin	6.8

BENEFITS

Thermolite® 176C heat stabilizer was developed to provide the formulator significant cost/performance advantages in rigid PVC compounds particularly those run in PVC pipe extrusion operations. The advantages of using **Thermolite® 176C** heat stabilizer include:

- Outstanding cost/performance ratio.
- Excellent heat stability and color hold.
- Low use level with excellent whiteness.
- May be substituted in part for more expensive products, without changing processing conditions.
- Slightly lubricating.
- Easy processing of regrind.
- NSF approved for potable water applications.
- Easy to pump and meter.

APPLICATIONS

Thermolite® 176C heat stabilizer can be used in many rigid PVC applications, particularly PVC pipe formulations where whiteness and output rates are important. It is especially recommended for extrusion of highly filled sewer pipe. In addition, it is well suited for extrusion of electrical conduit and telephone ducts.

PACKAGING AND STORAGE

Available in Totes or Intermediate Bulk Container (IBC).

In US

Customer Service
1.855.638.2549
Fax 1.855.289.2885

In Europe

Customer Service
33(0)3.91.83.71.56
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www.pmc-group.com

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TYPICAL FORMULATIONS

Potable Water Pipe	Use Level (phr)
PVC Resin (K-65)	100.0
Thermolite® 176C	0.4 – 0.8
PMC Biogenix Calcium Stearate	0.4 – 0.8
CrystalWax® 2054 (165°F mp)	0.8 – 1.2
Oxidized Polyethylene Wax	0.1 – 0.2
Calcium Carbonate (3.0 µm)	0.0 – 5.0
Titanium Dioxide	0.5 – 1.0

Sewer Pipe	Use Level (phr)
PVC Resin (K-65)	100.0
Thermolite® 176C	0.4 – 0.6
PMC Biogenix Calcium Stearate	0.6 – 0.8
CrystalWax® 2054 (165°F mp)	1.2 – 1.5
Oxidized Polyethylene Wax	0.1 – 0.2
MBS Impact Modifier	2.0
Calcium Carbonate (3.0 µm)	10.0 – 30.0
Titanium Dioxide	0.75 – 1.0

SAFETY & HANDLING

Thermolite® 176C stabilizer may be handled with the same normal precautions as other butyltin mercaptide stabilizers and organic liquids. In case of contact with skin, thoroughly wash with soap and water. In case of contact with eyes, flush with water and get medical attention immediately. Use with adequate ventilation and avoid excessive or prolonged exposure to the vapors.

We recommend that the material is stored in a cool, dry environment in a tightly closed container and used within 6 months after delivery. Iron or non-stainless steel should be avoided for piping, valves, and pumps. Teflon® gaskets are recommended. No part of the stabilizer handling system wetted by liquid should contain copper.



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ENVIRONMENTAL AND SAFETY INFORMATION

BEFORE HANDLING THIS MATERIAL, READ AND UNDERSTAND THE MSDS (MATERIAL SAFETY DATA SHEET) FOR ADDITIONAL INFORMATION ON PERSONAL PROTECTIVE EQUIPMENT AND FOR SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION. For Environmental, Safety & Toxicology information, contact our Customer Service Department at 1-855-638-2549 (1-855-METALIX) to request a Material Safety Data Sheet.

MORE TECHNICAL INFORMATION AVAILABLE

Ask your PMC account manager for further information about other high quality PMC plastics additives for use in PVC resins, PVC alloys and other polymer systems. PMC offers its **Center for Vinyl Innovation (CVI)** where our field experienced Technical staff maintains a full array of PVC testing capabilities to assist vinyl processors solve a range of formulation and processing problems. Set up a visit at the CVI to learn more about how PMC's technologists can help improve your vinyl processing applications.

PMC ORGANOMETALLIX THERMOLITE® AND ADVASTAB® HEAT STABILIZERS

PMC Organometallix offers a full range of Methyltin, Butyltin and Octyltin heat stabilizers. Our **Thermolite®** and **ADVASTAB®** heat stabilizers are designed for use in the production of rigid, semi-rigid, and cellular PVC products. Organometallix has developed PVC heat stabilizers specifically for extruded siding, profiles and pipe, injection molding, blow molded bottles and calendered or extruded sheet. Organometallix offers a full line of stabilizers that meet FDA requirements for food contact grade PVC packaging as well as a full line of NSF authorized stabilizers for PVC potable water pipe & fittings.

PMC BIOGENIX ADVAPAK®, ADVALUBE®, ADVAWAX®, KEMAMIDE® AND KEMESTER® LUBRICANTS

PMC Biogenix offers a wide range of metallic stearates, specialty lubricants and other additives designed all grades of polymer processing, including PVC pipe and profile extrusions, compounding, film and sheet and injection-molding applications. Biogenix brands are widely recognized. **ADVAWAX®** synthetic waxes are used in bottles, films and cellular PVC profile extrusions. **ADVALUBE®** specialty ester-based internal and external lubricants are designed for rigid PVC profile extrusion, calendered film and sheet, and blow molding applications. **ADVAPAK®** is family of multi-functional one-pack systems (OPS) combining heat stabilizer and lubricant technology designed for efficient extrusion of all types of PVC pipe and moldings. **Kemamide®** synthetic waxes find uses as slip agents and anti-block additives that provide excellent bloom control and secondary mold-release in polyolefins and engineering polymers such as nylon, PS and ABS and **Kemester®** lubricants are a range of glycerol esters and specialty esters that function as boundary lubricants, mold-release agents, emulsifiers, anti-stats, anti-fogs, and emollients in automotive plastics, etc.

PMC CRYSTAL BAION® AND CRYSTALWAX® LUBRICANTS

PMC Crystal manufactures **Baion®** and **CrystalWax®**, a broad range of standard paraffin and polyethylene wax blends along with options of including specialty lubricants produced by PMC Biogenix. Crystal lubricants are also available in custom formulations to meet specific customer requirements. Several **Baion®** products are fully authorized by NSF for use in PVC potable water systems. **Baion®** and **CrystalWax®** products find uses in PVC siding, window profiles, fencing, decking and trim applications to highlight a few.



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