pmc6organometallix[®]

Thermolite[®] 12 **PVC Stabilizer**

DESCRIPTION

Thermolite® 12 has received widespread acceptance as a non-sulfur containing heat stabilizer for polyvinyl chloride resins. The lack of sulfur can provide improved weathering when compared to other standard tin based stabilizers. It can also be used for stabilizing chlorinated paraffins, chlorinated rubber latex and other unstable chlorinated organic compounds.

TYPICAL PHYSICAL PROPERTIES

Properties	Typical Values
Physical Form	Clear Liquid
Color (Gardner)	3
Viscosity @ 25°C, cs	45
Specific Gravity @ 25°C, glcc	1.04
Refractive Index @ 25°C	1.467
Pour Point, °C	>20

PRODUCT BENEFITS

Thermolite® 12 is an outstanding non-sulfur organotin stabilizer for polyvinyl chloride plastics. Some of the advantages of Thermolite® 12 as a polyvinyl chloride stabilizer are:

- Outstanding stabilization against the degradation caused by ultraviolet and visible light.
- Unsurpassed clarity.
- Provides exceptional lubricating properties.
- Does not adversely affect the heat sealability and printability of polyvinyl chloride.
- Not subject to cross staining by sulfur compounds.
- Imparts superior processing characteristics to calendered and extruded stock.
- Compatible with other organotin stabilizers.
- Retention of delicate shades, hues and colors, especially pastel and flesh tints.
- Non-reactive with pigments commonly used in polyvinyl chloride systems.
- Insoluble in water, polyvinyl chloride products compounded with Thermolite[®] 12 do not blush on exposure to water. It can be emulsified for use in PVC Latex Systems.
- Excellent for flexible vinyl applications.

PACKAGING AND STORAGE

Available in Totes or Intermediate Bulk Container (IBC).

We recommend that the material is stored in a cool, dry environment in a tightly closed container and used within 6 months after delivery

In US Customer Service 1.855.638.2549 Fax 1.855.289.2885

In Europe Customer Service 33(0)3.91.83.71.56 Fax 33(0)3.91.83.71.91

www.pmc-group.com

The information contained in this Technical Data Sheet (TDS) relates to specific products of PMC Organometallix, Inc. (Seller) and is based upon information available as of the date hereof. While the information herein is believed to be reliable, we do not guarantee its accuracy and a purchaser must make its own determination of a product's suitability for purchaser's use, for the protection of the environment, and for the health and safety of its employees and the purchasers of its products. Additional information relating to the products can be obtained from the applicable Safety Data Sheets (SDS) which are available upon request. Nothing in this TDS or any SDS shall be construed to modify, limit or preclude the operation and effect of any and all provisions of any applicable written sales contract and/or Seller's General Terms and Conditions of Sale under which the Products described in this TDS are sold and the provisions of such as also contract and/or Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of sale solar that provide the products described in this TDS are solar of any applicable written sales contract and/or Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of sale solar or at http:// pro-group com/wp-content/uploads/2017/01/PMC_Group_General_Terms_and_Conditions_of_Sale.pdf. NOTHING IN THIS TDS SHALL CONSTITUTE A WARRANTY OR CERTIFICATION, EXPRESSED OR IMPLIED, REGARDING THE PRODUCT'S CHARACTERISTICS, QUALITY, USE, SAFETY OR FITNESS FOR ANY PARTICULAR PURPOSE. Nothing contained herein shall be construed as permission

or a recommendation to practice any invention covered by a patent or other intellectual property without the permission of the owner thereof. Neither Seller nor any of its affiliates shall be responsible for the use of this information, or of any product, method, formulation, or apparatus described in this TDS.

"ADVALUBE®, ADVAPAK®, ADVASTAB®, ADVAWAX®, Baion®, CrystalWax®, Kemamide®, Kemester® and Thermolite® are registered trademarks of PMC Group, Inc

Copyright © 2017 PMC Organometallix, Inc.

Marketed By Harwick Standard Distribution Corporation

page 1 of 2

harwickstandard.com

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.

pmc organometallix[®]

In US Customer Service 1.855.638.2549 Fax 1.855.289.2885 In Europe Customer Service 33(0)3.91.83.71.56 Fax 33(0)3.91.83.71.91

www.pmc-group.com

The information contained in this Technical Data Sheet (TDS) relates to specific products of PMC Organometallix, Inc. (Seller) and is based upon information available as of the date hereof. While the information herein is believed to be reliable, we do not guarantee its accuracy and a purchaser must make its own determination of a product's suitability for purchaser's use, for the protection of the environment, and for the health and safety of its employees and the purchasers of its products. Additional information relating to the products can be obtained from the applicable Safety Data Sheets (SDS) which are available upon request. Nothing in this TDS or any SDS shall be construed to modify, limit or preclude the operation and effect of any and all provisions of sup applicable written sales contract and/or Seller's General Terms and Conditions of Sale under which the Products described in this TDS are sold and the provisions of such sales contract and/or Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control. Seller's General Terms and Conditions of Sale shall control.

pmc-group.com/wp-content/uploads/2017/01/PMC_Group_General_Terms_and_Conditions_of_Sale.pdf. NOTHING IN THIS TDS SHALL CONSTITUTE A WARRANTY OR CERTIFICATION, EXPRESSED OR IMPLIED, REGARDING THE PRODUCTS CHARACTERSTICS, QUALITY, USE, SAFETY OR FITNESS FOR ANY PARTICULAR PURPOSE. Nothing contained herein shall be construed as permission or a recommendation to practice any invention covered by a patent or other intellectual property without the permission of the owner thereof. Neither Seller nor any of its affiliates shall be responsible for the use of this information, or of any product, method, formulatus described in this TDS.

"ADVALUBE®, ADVAPAK®, ADVASTAB®, ADVAWAX®, Baion®, CrystalWax®, Kemamide®, Kemester® and Thermolite® are registered trademarks of PMC Group, Inc.

Copyright © 2017 PMC Organometallix, Inc.

Marketed By Harwick Standard Distribution Corporation

Revision: 3-8-2017 (330) 798-9300

page 2 of 2

harwickstandard.com