

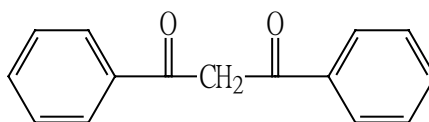
**Heat stabilizer for polyvinyl chloride or other vinyl polymer and copolymer.**
**HEAT STABILIZER**

## 1. General

DBM-83 is a heat co-stabilizer for PVC. It improves the efficiency of calcium-zinc and barium-zinc stabilizers in production of sheets, films and hollow containers in different PVC forms by absorbing or stabilizing HCl generated during the heating process. Its effectiveness permits PVC producer to avoid the use of toxic lead or cadmium heat stabilizers.

## 2. Properties

Structure :



CAS Name : Dibenzoylmethane  
 CAS No. : 120-46-7  
 Molecular Formula : C<sub>15</sub>H<sub>12</sub>O<sub>2</sub>  
 Molecular Weight : 224.2

## 3. Physical Data

Appearance : White crystalline solid  
 Odor : Ketone-like  
 Freezing point : 78 °C  
 Bulk density : 0.80 g/cm<sup>3</sup> @20 °C  
 Boiling point : 219 -221 °C @18 mmHg

## 4. Solubility

(g in 100 ml solvent)

Ether	:	>50	DOP	:	22
Soybean oil	:	30	Cyclohexane	:	<1
Methanol	:	3.0	Toluene	:	50
Water	:	Nil			

## 5. Specification

Appearance : Off-white to pale yellow powder  
 Assay : 98% min.  
 Melting point : 76 - 80 °C  
 Volatiles Content : 0.5% max.  
 Ash Content : 0.1% max.

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## **6. Application**

DBM-83 is particularly suitable for plasticized and semi-rigid PVC. Used in small doses, it improves the transparency of the finished products and makes light shades longer lasting.

DBM-83 is used in such processes as:

- ◆ calendering
- ◆ coating
- ◆ extrusion

DBM-83 is used at low doses, ranging from 0.05% to 0.1%, depending on the Ba:Zn or Ca:Zn ratios, on the salts used and on the application. The ratio expressed as stearate generally ranges from 3:1 to 1:1.

It is possible to add epoxidized soybean oil to improve the stability of the mixtures.

The use of organic phosphite is recommended, and our laboratories have obtained excellent results with trialkylphosphites.

## **7. Storage**

Must be stored in closed containers in dark dry conditions.

## **8. Packaging**

50 lb net/fiber drum -