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"Dutch Boy"
DYTHAL

Dibasic Lead Phthalate—
for adding light and heat
resistance to organic
materials



A Product Development of
NATIONAL LEAD COMPANY

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"Dutch Boy" **DYTHAL**

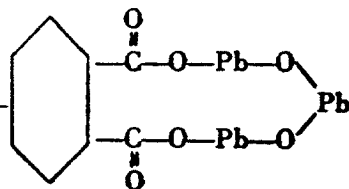
DYTHAL, the dibasic lead salt of phthalic acid, is a fluffy, yellowish crystalline powder which is of interest in the improvement of light and heat resistant characteristics of a number of organic products.

DYTHAL is an excellent absorber of ultra-violet light, and imparts exceptional light fastness to organic films. In addition to this, DYTHAL has a total lead content equivalent to 81.9% PbO and its available basic lead content is 54.6%. This large percentage of available basic lead acts as an acceptor for acid thermal degradation products of organic material. Hence, DYTHAL is particularly well adapted as both a light and heat stabilizer for the plastic and allied industries.

Table of Properties

Composition Dibasic lead phthalate

Formula



Molecular Weight 817

Form Fluffy crystalline powder

Color Yellowish white

Refractive Index (average) 1.99

Specific Gravity 4.6

Weight per Gallon 38.3 lb

Lead Oxide Content (% PbO) 81.9

Phthalic Anhydride Content (%) 19.1

Oil Absorption 18.8 g oil per 100 g

Fineness (Retained on No. 325 sieve) 0.3% max.

Solubility Like most basic lead salts, DYTHAL is insoluble in all common solvents.

Uses

Vinyl Plastics—DYTHAL imparts excellent light fastness to the vinyl plastics in which it is used. In this respect the compatibility of DYTHAL with commonly used dioctyl phthalate (DOP) plasticizer with vinyl resin is very helpful since it insures even dispersion and light protection throughout. The basic character of DYTHAL makes it readily adaptable as a heat stabilizer. In vinyl plastics plasticized with dioctyl phthalate, DYTHAL is of considerable importance as an all around light and heat stabilizer.

Suggested Uses—Because of the combination of properties exhibited by DYTHAL, used as both a heat and light stabilizer, it can, in all probability, be adapted to the stabilizing of chlorinated paraffins and other light unstable, chlorine containing materials.