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DUTCH BOY BARINAC is
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temperatures and in vinyl monomers during

an outstanding stabilizer
used. It provides trans-
ferred degradation.

"Dutch Boy"
CALSTAR

FEB 15 1956



DUTCH BOY CHEMICALS

A Product Development of
NATIONAL LEAD COMPANY

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"Dutch Boy" CALSTAR

"DUTCH BOY" CALSTAR is a pure, precipitated normal calcium stearate of unusually high quality and uniformity. CALSTAR has excellent lubricating, water repellent, and stabilizing properties which highly recommend its use in plastics and other compounds.

Table of Properties

Composition	Normal Calcium Stearate
Formula	$\text{Ca}(\text{C}_{17}\text{H}_{35}\text{O}_2)_2$
Form	Fine White Powder
Molecular Weight	686
Melting Point	Softens 125° - 130° C.
Specific Gravity	1.04 - 1.07
Refractive Index	1.52 - 1.53
Fineness	0.5% max. retained on 325 mesh sieve
Moisture (loss at 105° C.)	3.5% max.
Solubility	Insoluble in water and all common organic solvents

Uses

Stabilizer and Lubricant for Vinyl and Vinylidene Chloride Polymers—"DUTCH BOY" CALSTAR is an excellent lubricant with heat stabilizing action for clear vinyl and vinylidene chloride compounds.

Photograph Records—Production of clear vinyl chloride copolymer photograph records by compression molding, moves smoothly and rapidly with "DUTCH BOY" CALSTAR as the lubricant-stabilizer.

Higher Molecular Weight Vinyl Chloride Resins—Higher molecular weight vinyl chloride resins which are extruded and sheeted with little or no plasticizer, employ CALSTAR to advantage, because of its lubricating properties and excellent clarity.

Calendered Stocks—"DUTCH BOY" CALSTAR is especially well-suited for modern high-speed calendering of vinyl chloride film, where careful control of release properties is particularly important. It may be used in a broad range of calendered products, from heavy upholstery stocks to the lightest gauge film.

Lubricant for Extrusion—Insures increased production at well as longer mold life. The extruder proceeds with a minimum of friction under thermal conditions of this operation.

Lubricant for Calendering—The smooth lubricating action of polyethylene products, CALSTAR aiding the retention of vivid colors in ethylene products.

Lubricant for Extrusion—CALSTAR is the ideal lubricant for extruders and pressures to which release made possible by adding CALSTAR in clean-cut pieces with a more other where transparency is of importance.

Paints and Varnishes—CALSTAR emulsions, varnishes and lacquers, has and reproducible effects.

As a Water Repellent—CALSTAR water resistance of paper products, asbestos board. It is also useful as a sealer for concrete and stucco. CALSTAR asbestos or mineral wool insulation, plants and for home insulation.

Textiles—The hand of cottons, proved with CALSTAR. It finds application in textile fabrics.

Extender Base for Silk Screen—Ink, calcium stearate helps to eliminate.

Drawing and Stamping of Metals—proves very useful in the drawing and stamping the frictional heat which develops.

Microfilm Uses—"DUTCH BOY" CALSTAR is used in microfilm where requiring lubricity, inertness and

Name "DUTCH BOY" CALSTAR calcium stearate. It is a

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"Dutch Boy" CALSTAR

"DUTCH BOY" CALSTAR is a pure, precipitated normal calcium stearate of high quality and uniformity. CALSTAR has excellent lubricating, water and stabilizing properties which highly recommend its use in plastic compounds.

Table of Properties

Chemical Name	Normal Calcium Stearate
Formula	$\text{Ca}(\text{C}_{17}\text{H}_{35}\text{O}_2)_2$
Appearance	Fine White Powder
Specific Gravity	0.96
Melting Point	Softens 125°-130° C.
Specific Gravity	1.01-1.07
Viscosity	1.52-1.53
Particle Size	0.5% max. retained on 225 mesh sieve
Flow (at 105° C.)	2.5% max.
Solubility	Insoluble in water and all common organic solvents

Uses

Extruder and Lubricant for Vinyl and Vinylidene Chloride Polymers—"DUTCH BOY" CALSTAR is an excellent lubricant with heat stabilizing action on vinyl and vinylidene chloride compounds.

Extruder Backing—Production of clear vinyl chloride copolymer phenolic by compression molding, occurs smoothly and rapidly with "DUTCH BOY" CALSTAR as the lubricant-stabilizer.

Molecular Weight Vinyl Chloride Resins—Higher molecular weight resins which are extruded and sheeted with little or no plasticizer, CALSTAR to advantage, because of its lubricating properties and heat

Stabilizer—"DUTCH BOY" CALSTAR is especially well suited for the extruding of vinyl chloride film, where careful control of viscosity is particularly important. It may be used in a broad range of viscosities, from heavy upholstery stocks to the lightest gauge film.

Lubricant for Extrusion and Molding of Phenolic Resins—CALSTAR increases production at lower pressures in jet and transfer molding, as well as longer mold life. The extrusion of phenolic resins containing CALSTAR proceeds with a minimum of frictional heat, affording greater control over the thermal conditions of this operation.

Lubricant for Calendering, Extrusion, and Molding of Polyethylene—The smooth lubricating action of CALSTAR greatly enhances the fabrication of polyethylene products. CALSTAR has exceptional clarity when fused, thereby aiding the retention of vivid colors and delicate tints in the wide range of polyethylene products.

Lubricant for Extrusion and Injection Molding of Polystyrene—CALSTAR is the ideal lubricant for extrusion and injection molding at the high temperatures and pressures to which polystyrene is subjected. The rapid, easy mold release made possible by adding CALSTAR to injection molding powders, results in clean-cut pieces with a more attractive finish. In these polystyrene applications, where transparency is of importance, CALSTAR provides excellent clarity.

Paints and Varnishes—CALSTAR is utilized as a flattening agent in semi-gloss enamels, varnishes and lacquers. Its inertness and uniform quality promote stable and reproducible effects.

As a Water Repellent—CALSTAR is highly desirable for improving the water resistance of paper products and building materials, such as shingles and asbestos board. It is also useful as a waterproofing agent in paints and other compounds for concrete and stone. CALSTAR is excellent for repelling moisture in asbestos or mineral wool insulation, both for high pressure steam lines in industrial plants and for home insulation.

Textiles—The hand of cottons, rayons and other synthetic fibers can be improved with CALSTAR. It finds application in water repellent finishes for all types of textile fabrics.

Extruder Base for Silk Screen Printing—In paints for silk screen printing, calcium stearate helps to eliminate tackiness and prevent smudging.

Drawing and Stamping of Metals—The lubricating action of CALSTAR proves very useful in the drawing and stamping of metals. In addition to lowering the frictional heat which develops, it will also aid in preventing distortion.

Microfilm Uses—"DUTCH BOY" CALSTAR is suggested for any applications requiring lubricity, inertness and water repellence at low cost.

Notes—"DUTCH BOY" CALSTAR is a pure, white grade of calcium stearate. It is not intended for use in food products.

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