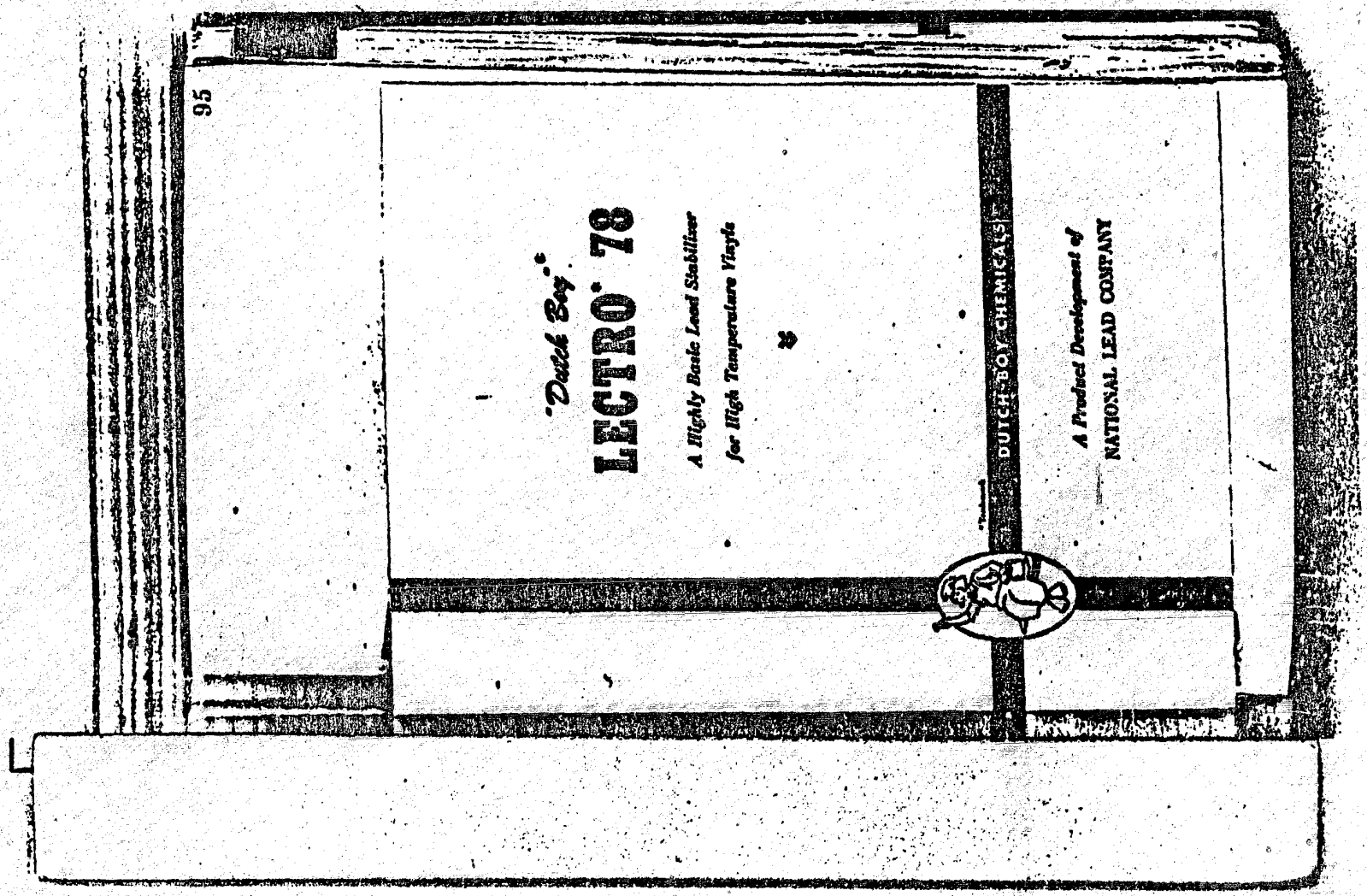
NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00053

0705

NLI 116266

N11612



NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

00053

NLI 116267

"Dutch Boy"®

LECTRO* 78

LECTRO 78 adds to the "DUTCH BOY" line a new basic lead stabilizer providing greatly improved heat stability and electrical properties at higher temperatures. It is tetrabasic lead fumarate, a fine creamy-white powder. Its easy dispersion and non-gassing characteristics combine to make LECTRO 78 a noteworthy development. LECTRO 78 is intended for use with all types of vinyl chloride polymers.

General Characteristics

Heat Stability—At higher temperatures, LECTRO 78 imparts heat stability superior to most other stabilizers. It is particularly well suited for high temperature insulation, rigids, and other compounds which must meet severe processing and service conditions. LECTRO 78 gives excellent stability without gassing.

Electrical Properties—LECTRO 78 provides a new high standard of resistivity over a wide range of temperatures, as shown in a comprehensive series of tests. These include volume resistivities at 25°C., 70°C. and 95°C., and tests according to Underwriters' Laboratories procedures on T, TW, 90°C. and 105°C. coated wire. Moisture resistance is excellent. The improved electrical and stabilizing properties make LECTRO 78 an ideal stabilizer for wire coating and electrical grade plastisols.

Electrical Grade Plastisols—LECTRO 78 is especially recommended for electrical grade plastisol and organosol formulations. In these compounds, it is instrumental in developing the maximum volume resistivity characteristics available from dispersion type resins.

Phonograph Records—LECTRO 78 is an outstanding stabilizer for both filled and unfilled vinyl phonograph records. Its high heat stability maintains the maximum physical properties attainable with vinyl resins. This results in superior wear properties, optimum fidelity, and minimum noise level. Because of its compatibility and good stabilizing action, the annoying problem of surface streaking is eliminated.

*Chlorosulfonated Polyethylene (HYPALON**)*—LECTRO 78 is the most efficient basic lead vulcanizing agent for chlorosulfonated polyethylene. It is comparable in its action to tribasic lead maleate (**"DUTCH BOY" TRI-MAL**), but it represents an improvement, in that it has higher efficiency and better color stability. Smaller amounts of LECTRO 78 are required to achieve specific curing properties, resulting in better initial color and better maintenance of color on aging.

*LECTRO is a trademark of the National Lead Company for stabilizer compounds.
**Hypalon is a trademark of E. I. du Pont de Nemours & Co., Wilmington, Del.

Like TRI-MAL, LECTRO 78 is superior to [illegible] curing agents in water resistance and relative [illegible] effective in both milled and solution type [illegible] compounds.

Other Characteristics—LECTRO 78 shows [illegible] plasticizers commonly used in electrical insulation[illegible] teristics and quicker and more even compounding, [illegible] extrusion rates and smooth tubing characteristics. [illegible] most other electrical stabilizers.

Recommendations

Electrical Insulation—The general level of [illegible] trical insulation compounds is between 5% and 10% [illegible] applications such as T and TW wire insulation the [illegible] adequate. For higher temperature uses 8% to 10% [illegible]

LECTRO 78 can be used to advantage as an [illegible] stability and electrical properties of established [illegible] ample, the addition of 2% LECTRO 78 to 5% of a [illegible] basis) will increase heat stability and electrical insu[illegible]

For electrical grade plastisols and organosols, 6% [illegible] suggested. The higher stabilizer levels are very help[illegible] inherent electrical properties of the majority of disp[illegible]

Phonograph Records—For vinyl phonograph [illegible] recommendation is 1.5% LECTRO 78, based on the wei[illegible] tional lubricity or flow is required, from 0.5% to 0.7[illegible] or LEADSTAR may be substituted as a partial repl[illegible] amount of the LECTRO 78.

Chlorosulfonated Polyethylene—As a vulcani[illegible] chlorosulfonated polyethylene, the amount of LECT[illegible] 25% and 30%, based on the weight of the elastomer.

Rigid Stocks—For rigid and semi-rigid stocks [illegible] gether with 1.5% to 2% "DUTCH BOY" DS-207 is re[illegible]

Typical Properties

Composition	Tetrabasic Lead [illegible]
Formula	4PbO·PbC$_4$H$_2$O$_4$
Color and Form	Fine Creamy-Wh[illegible]
Molecular Weight	1239
Total Lead Content (%PbO)	90
Safety Reactive Lead Content (%PbO)	72.5
Specific Gravity (20°C./20°C.)	6.56
Refractive Index (25°C.)	2.1
Fineness (Retained on 325 mesh sieve)	0.5% maximum
Solubility	Insoluble in wat[illegible] organic solvents

*U. S. Patent No. 2,568,[illegible]

Notice: If the film image is less clear than this notice, it is due to the quality of the document being filmed

"Dutch Boy"®

LECTRO* 78

78 adds to the "DUTCH BOY" line a new basic lead stabilizer ...ntly improved heat stability and electrical properties at higher tem... in tetrabasic lead fumarate, a fine creamy-white powder. Its easy ...d non-gassing characteristics combine to make LECTRO 78 a note... ...opment. LECTRO 78 is intended for use with all types of vinyl ...sins.

General Characteristics

...ility—At higher temperatures, LECTRO 78 imparts heat stability ...ost other stabilizers. It is particularly well suited for high temper... ...es, rigids, and other compounds which must meet severe processing ...conditions. LECTRO 78 gives excellent stability without gassing.

...al Properties—LECTRO 78 provides a new high standard of ... ...a wide range of temperatures, as shown in a comprehensive series ...e include volume resistivities at 25°C., 70°C. and 95°C., and tests ...Underwriters' Laboratories procedures on T, TW, 90°C. and 105°C. ...Moisture resistance is excellent. The improved electrical and stabili... ...e LECTRO 78 an ideal stabilizer for wire coating and electrical ...

...ible Plastisols—LECTRO 78 is especially recommended for ... ...ational and organosol formulations. In these compounds, it is ...veloping the maximum volume resistivity characteristics avail... ...n type resins.

...Records—LECTRO 78 is an outstanding stabilizer for both ...vinyl phonograph records. Its high-level stability maintains the ... properties attainable with vinyl resins. This results in superior ...optimum fidelity, and minimum noise level. Because of its coup... ...good stabilizing action, the annoying problem of surface streaking ...

...ulfonated Polyethylene (HYPALON**)—LECTRO 78 is the most ...ical vulcanizing agent for chlorosulfonated polyethylene. It is simi... ...ar to tribasic lead maleate ("DUTCH BOY" TRI-MAL), but ...s improvement, in that it has higher efficiency and better color ...ty amounts of LECTRO 78 are required to achieve specific curing ...ding in better initial color and better maintenance of color on ...

...arch of the National Lead Company for stabilizer compounds. ...ufactured by Metal & Thermit Corporation, 120 Broadway, New York 5, N. Y. ...Co., Williamsport, Pa.

Like TRI-MAL, LECTRO 78 is superior to other organic and metal oxide curing agents in water resistance and relative freedom from "scorching." It is effective in both milled and solution type chlorosulfonated polyethylene compounds.

Other Characteristics—LECTRO 78 shows good compatibility with most plasticizers commonly used in electrical insulation. The good dispersion characteristics aid quicker and more even compounding. LECTRO 78 promotes high extrusion rates and smooth tubing characteristics. It requires less lubricant than most other electrical stabilizers.

Recommendations

Electrical Insulation—The general level of usage of LECTRO 78 in electrical insulation compounds is between 5% and 10% on the weight of resin. For applications such as T and TW wire insulation the range of 5% to 7% is usually adequate. For higher temperature uses 8% to 10% is recommended.

LECTRO 78 can be used to advantage as an effective booster for the heat stability and electrical properties of established basic lead stabilizers. For example, the addition of 2% LECTRO 78 to 5% of a standard stabilizer (both resin basis) will increase heat stability and electrical insulation properties markedly.

For electrical grade plastisols and organosols, 6% to 10% of LECTRO 78 is suggested. The higher stabilizer levels are very helpful in counteracting the poor inherent electrical properties of the majority of dispersion resins.

Phonograph Records—For vinyl phonograph record compounds, the recommendation is 1.5% LECTRO 78, based on the weight of the resin. When additional lubricity or flow is required, from 0.5% to 0.75% "DUTCH BOY" DS-207 or LEADSTAR may be substituted as a partial replacement for an equivalent amount of the LECTRO 78.

Chlorosulfonated Polyethylene—As a vulcanizing and curing agent for chlorosulfonated polyethylene, the amount of LECTRO 78 required is between 2½% and 30%, based on the weight of the elastomer.

Rigid Stocks—For rigid and semi-rigid stocks 2% to 5% LECTRO 78 together with 1.5% to 2% "DUTCH BOY" DS-207 is suggested.

Typical Properties

Composition	Tetrabasic Lead Fumarate*
Formula	$4PbO \cdot PbC_4H_2(COO)_2 \cdot xH_2O$
Color and Form	Fine Creamy-White Powder
Molecular Weight	1259
Total Lead Content (%PbO)	90
Soluble Reactive Lead Content (%PbO)	21.5
Specific Gravity (20°C./20°C.)	6.34
Refractive Index (25°C.)	2.1
Fineness (Retained on 325 mesh sieve)	0.5% maximum
Solubility	Insoluble in water and all common organic solvents

*U. S. Patent No. 2,564,695

00053

NLI 116268