

# Information about MOLYKOTE® Specialty Lubricants



LANCER SALES CO.  
WILFORD BUILDING  
33rd & ARCH STS.  
PHILA., PA. 19104  
Evergreen 6-8836

## DESCRIPTION

MOLYKOTE® Pene-Lube consists of a petroleum distillate containing a dispersion of white solid lubricants that penetrate deep into normally inaccessible areas and loosen rust and dirt to allow easier, non-destructive disassembly. The white solid lubricants which are carried in by the penetrating oil help provide smoother lubrication of parts.

MOLYKOTE Pene-Lube will displace water.

## USES

MOLYKOTE Pene-Lube has been used as a penetrating lubricant in a variety of applications which include:

### Penetrating Rust

- Bolts and studs on engines, gearboxes, and differential cases that are crusted with oil, dirt and rust
- Seized bolts and nuts, rusted parts
- Rusted couplings, bearings, pivot pins, guide pins
- Locks, hinges, and chains that are "frozen" with rust
- Squeaking spring leaves, chairs, hinges
- Frozen railroad switch plates and tie-downs on auto transport cars
- Electric motor coupling removal and freeing sticking brush holders

### Lubricating

- Locks, hinges, cranks, sliding doors and windows
- Conveyors, material handling equipment, chain drives
- Construction equipment, farm machinery, draglines, cables

## MOLYKOTE® PENE-LUBE AND MOLYKOTE® PENE-LUBE SPRAY\*

Type ..... White solid lubricants dispersed in a petroleum distillate  
Physical Form, as supplied ..... Liquid and aerosol  
Propellant In Aerosol ..... Nonchlorofluorohydrocarbon  
Special Properties ..... Loosens rust, displaces water, retards corrosion  
Primary Use ..... Penetrating oil and lubricant  
\*New environmental formula containing the same amount of active ingredient as previous formulation.

## HOW TO USE

MOLYKOTE Pene-Lube can be sprayed on or brushed on without surface pretreatment.

## CAUTION

MOLYKOTE Pene-Lube may cause eye irritation. Avoid eye contact.

## SHIPPING LIMITATIONS

DOT Classification: Combustible for MOLYKOTE Pene-Lube and flammable for MOLYKOTE Pene-Lube spray.

## STORAGE AND SHELF LIFE

When stored at or below 90 F (32 C), MOLYKOTE Pene-Lube has a shelf life of 18 months from date of shipment.

## PACKAGING

MOLYKOTE Pene-Lube is supplied in 16-oz aerosol cans containing 12.3-oz (350-gm); and 5-gal (19-lit) and 55-gal (220-lit) drums. All weights net.

## TYPICAL PROPERTIES

These values are not intended for use in preparing specifications.

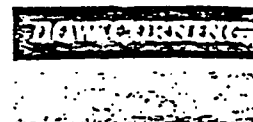
|             |                                                                                   |                    |
|-------------|-----------------------------------------------------------------------------------|--------------------|
|             | Color* .....                                                                      | Amber, cloudy      |
|             | Density* at 77 F (25 C), lbs per gal .....                                        | 7.0                |
| ASTM E 134  | Flash Point*, closed cup, degrees .....                                           | 142 F (61 C)       |
| ASTM D 3233 | Falex Load Carrying Capacity*, lbs .....                                          | 1290               |
|             | Four-Ball Wear Test*, (40 kg, 1800 rpm, 1 hr, 77 F (25 C), 52100 Steel), mm ..... | 1.67               |
|             | Flame Extension, aerosol (CPSCM, Method 1500.45) .....                            | <18", No flashback |

\*Properties for bulk form only.

Specification Writers: Please contact Dow Corning Corporation, Midland, Michigan, before writing specifications on this product.

# Information about MOLYKOTE® Specialty Lubricants

LANCO SALES CO  
WILFORD BUILDING  
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PHILA., PA. 19104  
EVERgreen 6-8835



## DESCRIPTION

MOLYKOTE® 557 Lubricant is:

- An extreme-pressure lubricant with anti-weld properties for cutting and forming metals; and with anti-wear properties for heavily loaded bearings, cams, slides, etc.
- Colorless in thin films
- Non-staining to paper or fabrics
- Dispersed in a solvent with no flash point

The solvent rapidly evaporates after application, leaving a nearly transparent, thin film. This lubricant film begins to melt at 90 F (32 C) and it adheres tenaciously to most surfaces, whether in solid or fluid state.

## USES

- In steel production, MOLYKOTE 557 Lubricant increases slitter-blade life, resulting in clean square edges.
- In aluminum production, this lubricant lengthens the life of tools and dies, improves surface finish, lubricates sliding surfaces and surfaces during extruding, deep drawing, or spinning.
- In machine shops, this lubricant improves surface finishes; extends the life of cutting tools, taps, dies, drills, slitters, and forming tools; reduces wear and reduces stick-slip or metal seizure on bearings, slides, cams, adjusting screws, guides, and ways.
- For textile, paper, and wood-working industries, MOLYKOTE 557 Lubricant reduces wear and friction; and reduces product staining from spinning frames, knives, scissors, punches, chains, conveyors, or material-handling equipment.
- For rubber and plastic industries

## MOLYKOTE® 557 LUBRICANT AND MOLYKOTE® 557 LUBRICANT SPRAY\*

|                                  |                                                                       |
|----------------------------------|-----------------------------------------------------------------------|
| Type .....                       | Waxlike, extreme-pressure lubricant                                   |
| Physical Form, as supplied ..... | Liquid or aerosol                                                     |
| after solvent evaporation .....  | Thin-film solid                                                       |
| Solvent in Liquid .....          | Chlorothene® NU                                                       |
| Propellent in Aerosol .....      | Nonchlorofluorohydrocarbon                                            |
| Special Properties .....         | Colorless, non-staining, extreme pressure lubricant                   |
| Primary Use .....                | To reduce wear, friction, sticking, and extend life of tools and dies |

\*New environmental formula containing the same amount of active ingredient as previous formulations.

this lubricant reduces sticking, pick-up, or product contamination from handling equipment, knives, conveyors, or sliding surfaces.

## TYPICAL PROPERTIES

These values are not intended for use in preparing specifications.

### As Supplied

|                                      |                                                                             |
|--------------------------------------|-----------------------------------------------------------------------------|
| Color*                               | Colorless                                                                   |
| Density,* gm/cc at 77 F (25 C) ..... | 1.44                                                                        |
| Flash Point*                         | None                                                                        |
| Drying Time, minutes .....           | < 1                                                                         |
| Normal Film Thickness .....          | Approx. .0001"                                                              |
| Solvent,                             |                                                                             |
| bulk .....                           | Chlorothene® NU†                                                            |
| aerosol spray .....                  | Chlorothene NU, alcohol, ketone plus nonchlorofluoro-hydrocarbon propellant |

Flame Extension, aerosol (CPSCM, Method 1500.45) .....

### As Applied

|                                 |                    |
|---------------------------------|--------------------|
| Appearance .....                | Colorless wax film |
| Melting Range, degrees .....    | 90-115 F (32-46 C) |
| Press Fit** .....               | No stick-slip      |
| Coefficient of Friction** ..... | 0.09               |

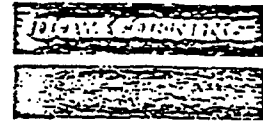
\*Bulk form only.

†A product of The Dow Chemical Co.

\*\*Tested on a Faville-LaValley Faxex-4 Press-Fit tester, steel vs. steel, Rc50, 0.6 inch per minute, 12,000 psi in air, room temperature.

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# Information about MOLYKOTE® Specialty Lubricants



## DESCRIPTION

MOLYKOTE® Metal Protector is a transparent, dry, wax-like coating that protects metal parts against corrosion. It is supplied in a solvent which has no flash point. The coating has good inherent lubricating properties and usually does not require removal prior to any subsequent machining, assembly, or start-up of equipment. If necessary, MOLYKOTE Metal Protector coating may be easily removed with a chlorinated solvent.

Parts protected with MOLYKOTE Metal Protector may be examined through the transparent coating. Additionally, the parts will remain clean since the dry coating will not readily pick up dirt, dust, and grit under normal handling and storage.

## USES

MOLYKOTE Metal Protector is typically used to protect high-value-added metal parts during production, storage, and shipment — especially components exposed to high humidity, salty conditions, and corrosive industrial environments. It dries within 5-10 minutes and consequently, allows normal handling in a minimum of time.

Other typical uses for MOLYKOTE Metal Protector include:

- *Manufacturing* — machined surfaces, stampings, raw stock, work-in-process parts, and finished products.
- *Machine shop and tool room* — dies, fixtures, jigs, tools, molds, guides and ways, and raw ground stock.
- *Maintenance* — machine tools, pneumatic tools, spare parts,

## MOLYKOTE® METAL PROTECTOR AND MOLYKOTE® METAL PROTECTOR SPRAY

(Formerly Molykote® Q1-3935)

|                          |                                                                                                                    |
|--------------------------|--------------------------------------------------------------------------------------------------------------------|
| Type .....               | Corrosion protective coating                                                                                       |
| Physical Form            |                                                                                                                    |
| as supplied .....        | Liquid or aerosol                                                                                                  |
| as applied .....         | Clear, dry, wax-like film                                                                                          |
| Special Properties ..... | Good corrosion protection in thin film; colorless; nonoily; compatible with most lubricants and rubbers            |
| Primary Uses .....       | For preventing corrosion on metal parts in storage, overseas shipments and other high humidity, long-term exposure |

storage and product equipment temporarily out of service.

- *Finished products* — machined and painted surface protection during domestic and foreign shipments.

## HOW TO USE

MOLYKOTE Metal Protector is ready to use as supplied. However, for uniform solids distribution and coating thickness, the bulk material should be gently mixed before and during use periods. The preferred method of applying the coating is by dipping. Nevertheless, brushing, conventional manual, or automatic spraying equipment may also be used. For smaller jobs and touch-up work, MOLYKOTE Metal Protector may be applied from an aerosol container. For best protection, scratching of the coating after application should be avoided.

## Surface Preparation

Surfaces to be protected with MOLYKOTE Metal Protector must be clean and dry. Although the coating will not permit moisture to penetrate, it does not displace moisture already on the metal surface.

## Film Thickness

A film thickness suitable for most requirements (0.20 to 0.25 mils) can be obtained by dipping at normal room temperature. For a thicker film and increased metal protection, additional dip coatings may be repeated after allowing the first coat to dry (see Salt Spray Corrosion Resistance). Similar build-up of the protective film may be achieved by repeated spray or brush applications, with intervals for drying between coats. If a thinner film is desired, the liquid material may be diluted by using a suitable chlorinated solvent such as perchloroethylene or Chlorothene® NU.

## Removal of Film

In most cases, MOLYKOTE Metal Protector does not have to be removed from coated parts before they are machined, assembled, or started up. However, if removal is desired, degreasing with a chlorinated solvent such as Chlorothene® NU or perchloroethylene will normally remove the coating.

\* Chlorothene is a  
of The Dow Chem

# TYPICAL PROPERTIES

These values are not intended for use in preparing specifications.

## As Supplied

|                              |                                               |
|------------------------------|-----------------------------------------------|
| Color*                       | Amber                                         |
| Density,* lbs/gal            | 12.6                                          |
| Boiling Point,* degrees      | 240 F (115 C)                                 |
| Flash Point*                 | None                                          |
| Surface Coverage, sq ft/gal, |                                               |
| film thickness of 0.0001 in  | 2100                                          |
| 0.0002 in                    | 1100                                          |
| 0.0003 in                    | 700                                           |
| Drying Time, minutes         | 5-10                                          |
| Solvent,                     |                                               |
| bulk                         | Perchloroethylene                             |
| aerosol spray                | Perchloroethylene plus fluorinated propellant |
| Solids Content,* percent     | 8                                             |

## As Applied

|                                    |                            |
|------------------------------------|----------------------------|
| Appearance                         | Colorless, non-oily wax    |
| Softening Point, degrees           | 150 F (65 C)               |
| Flash Point, degrees               | 275 F (135 C)              |
| Service Temperature Range, degrees | -40 to 150 F (-40 to 65 C) |
| Normal Film Thickness, inch        | 0.00015 to 0.00020         |
| Corrosion Resistance, mild steel   |                            |
| at 0.00015-inch-film thickness,    |                            |
| 20% salt spray for 40 hrs          | No rust                    |
| 5% salt spray for 40 hrs†          | No rust                    |
| 60 days humidity-cycled water      |                            |
| vapor ½ hr, dry ¼ hr/100 F (38 C)  | No rust                    |
| Lubrication,                       |                            |
| Faville-LeValley Corp.,            |                            |
| LFW-4 Press Fit Test Machine       | Pass, no stick-slip        |
| Coefficient of Friction            | 0.10                       |

\* Properties for bulk form. Aerosol contains bulk plus fluorinated propellant.

† See graph.

Specification Writers: Please contact Dow Corning Corporation, Midland, Michigan, before writing specifications on this product.

