

Bio-Concrete™ Mold Release Fluids

(Soy-Based Formulas)

Environmentally Friendly, Biobased Mold Release and Corrosion Inhibitor Solutions

Bio-Concrete™ Mold Release Fluids are high-performance, soy-based, readily biodegradable mold release compounds formulated for concrete casting applications. These environmentally responsible fluids are designed to deliver clean separation from metal molds while providing corrosion protection. Formulated with patented Stabilized™ HOBS (High Oleic Base Stocks) technology, they provide excellent thermal stability, reduced environmental impact, and safer handling compared to petroleum-based alternatives.

Benefits

- Readily biodegradable, non-toxic, and not bioaccumulative
- Produces smooth, high-quality concrete surface finishes
- Reduces form “hang-up” and buildup on mold edges
- High flash points improve fire resistance and operator safety
- Free from volatile organic compounds (VOCs)
- Offers corrosion protection for metal molds (select formulas)
- Customizable viscosity and performance for specific applications
- Ideal for environmentally sensitive job sites

Application / New Filling

- Recommended for use in:
 - Concrete casting and mold separation operations
 - Construction, precast concrete manufacturing, and masonry
 - Steel or metal formwork (with or without corrosion inhibition)
- Application methods: brush, spray, or dip
- Select appropriate formula based on corrosion protection needs and desired viscosity

Specifications and Approvals

- ASTM D-5864: Ultimate Biodegradation (Pw1) within 28 days
- Proprietary Stabilized™ HOBS formulation enhances thermal and cold-flow stability
- Contains no VOCs or hazardous solvents

STABILIZED™
Renewable Lubricants

ISOGREEN®
CERTIFIED LUBRICANTS 

Bio-Concrete™ Mold Release Fluid (Plus Corrosion Inhibitor):

RLI Item #86400

A Bio-Corrosion Inhibitor (BCI) product that is highly effective as a mold release or parting compound for cast concrete products. This biobased formula provides smooth finishes on concrete cast from slurries. In addition to its performance as a parting compound, the product is effective as a rust/corrosion preventative that protects metal forms from corrosion during use and storage. The absence of rust on the forms eliminates staining of the formed piece and serious loss of the forms themselves. It allows the metal forms to stay clean; “hang-up” or excessive deposits on the form edges are virtually eliminated. This product is also biodegradable¹, which is highly important because of loss into the environment. Because of the high flash, the product is safer than petroleum products. It is more fire resistant and contains no volatile organic compounds (VOCs).

TYPICAL TEST DATA

ASTM D-445 5.3 cSt @ 40°C

ASTM D-92 Flash Point 220°C

ASTM D-97 Pour Point -10°C

Bio-Concrete Mold Release Fluid (Low Viscosity General Purpose):

RLI Item #86410

A general purpose, lower cost product that is effective as a mold release or parting compound for cast concrete products. This biobased formula provides improved finishes on concrete cast from slurries and is biodegradable¹, which is highly important because of loss into the environment. Because of the high flash, the product is safer than comparative petroleum products. It is more fire resistant and contains no volatile organic compounds (VOCs). It helps in preventing corrosion on metal forms in use, but will not provide the long-term corrosion protection in storage. *For additional corrosion protection use BCI Item #86400 above.*

TYPICAL TEST DATA

ASTM D-445 4.5cSt @ 40°C

ASTM D-92 Flash Point 145°C

ASTM D-97 Pour Point -1.1°C

Bio-Concrete Mold Release Fluid (Modified):

RLI Item# Bio-Concrete Mold Release Fluid (Modified) 86430
Release Fluid + PPD 86440

Bio-Concrete Mold

Additive composition, surface tension, and viscosities of the Concrete Mold Release Fluid can be modified for special customer needs. ***RLI can custom design the above products by adjusting viscosities between 4 cSt to 50 cSt at 40°C, increasing corrosion inhibitors, and improving cold temperature performance.***

STABILIZED by Renewable Lubricants* is RLI's trademark on their proprietary and patented anti-oxidant, anti-wear, and cold flow technology. High Oleic Base Stock (HOBS) are agricultural vegetable oils. This Stabilized technology allows the HOBS to perform as a high-performance formula in high and low temperature applications, reducing oil thickening and deposits.

¹ Ultimate Biodegradation (Pw1) within 28 days in ASTM D-5864 Aerobic Aquatic Biodegradation of Lubricants Proprietary Formula

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Availability F.O.B.: Hartville, Ohio, USA 1 Gallon 5 Gallon Pail Drum Totes Bulk