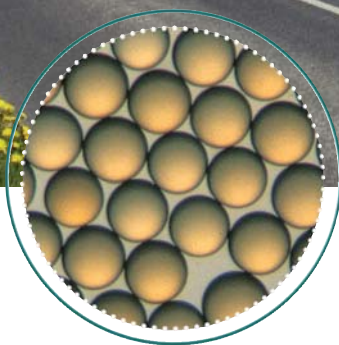




LENNTECH
WATER TREATMENT SOLUTIONS

PURIFICATION OF BIODIESEL WITH AMBERLITE™ BD10DRY



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AMBERLITE™ BD10DRY

THE LEADER IN BIODIESEL PURIFICATION

AMBERLITE™ BD10DRY technology from ROHM and HAAS is the easiest and most cost effective way to purify biodiesel.

AMBERLITE™ BD10DRY is a specialty polymer developed and optimized specifically for biodiesel purification. AMBERLITE™ BD10DRY is in the form of functionalized copolymer beads that eliminate unwanted impurities from biodiesel made from any feedstock. It will completely remove soap and catalyst traces and will also eliminate residual glycerol.

AMBERLITE™ BD10DRY technology is the proven leader in biodiesel purification. It was developed specifically for the stringent demands of European biodiesel producers and is now being designed into American plants.

■ The Value of Using AMBERLITE™ BD10DRY

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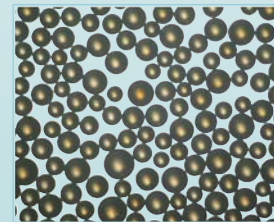
The precise amount of AMBERLITE™ BD10DRY resin required to treat your biodiesel will depend on your process conditions. From our experience, 1 lb (kg) of AMBERLITE™ BD10DRY will treat between 900 and 1600 lbs (kg) of biodiesel.

The AMBERLITE™ BD10DRY process is water-free, no biodiesel is lost in the washing process. The absence of water also facilitates the complete recovery of methanol.

A Rohm and Haas representative will work with you to determine the optimum utilization for your plant.

Why Biodiesel Producers Prefer AMBERLITE™ BD10DRY*

- Better yield: biodiesel not washed away with waste water
- Complete methanol recovery
- Completely **DRY** process
- No filtering or filtering accessories required
- Ambient temperature
- Continuous or batch process; fully compatible with automated processes
- No pressure drop or clogging
- Easy to integrate into your existing plant
- Simple to use: lowest labor requirement and operating cost
- Meets any global biodiesel standard including ASTM D-6751-06 and EN14214.



* References upon request

■ The Easiest Way to Purify Biodiesel

AMBERLITE™ BD10DRY is by far the simplest biodiesel purification medium available and can be integrated into any existing biodiesel plant.

Loading AMBERLITE™ BD10DRY in columns is the preferred configuration. The design is simple and has a compact footprint.

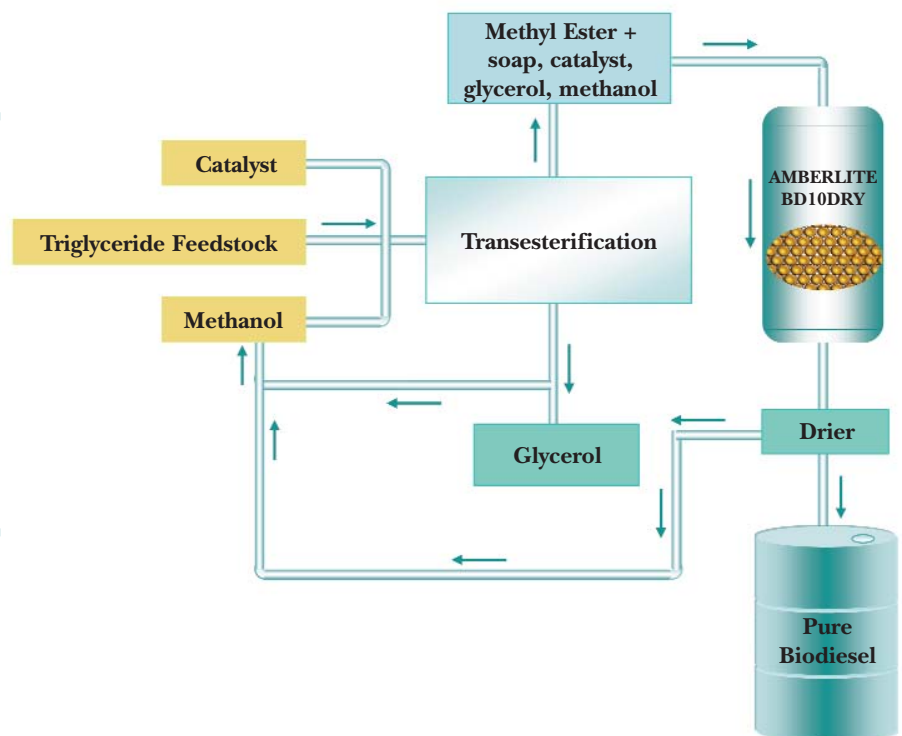
Biodiesel is purified by passing it through a fixed-bed column of AMBERLITE™ BD10DRY resin at the end of your process. Loading is fast and simple and once the columns are loaded there is no other intervention necessary. The resin remains fixed in the column and automatically purifies the biodiesel that passes through. Once the resin is spent it is easily changed out for a fresh load.

REMEMBER: 1 lb (kg) of AMBERLITE™ BD10DRY will typically treat between 900 and 1600 lbs (kg) of biodiesel. So the frequency of "rebedding" (replacing the spent resin) will depend on the level of impurities in your biodiesel, the amount of biodiesel treated, and the size of the column.

A Rohm and Haas representative will work with you to find the best solution for your plant.

*Looking for a more competitive **BIODIESEL** production process?*

*Talk to Rohm and Haas about how you can start using **AMBERLITE™ BD10DRY** technology today.*



Trust only Rohm and Haas

Rohm and Haas is a leading global supplier of specialty chemicals and technologies. Our Quality commitment is unparalleled as is our history of offering innovative functional polymer technologies. Our global technical team is uniquely experienced to work with you to optimize your biodiesel production process.

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CAUTION

Ion exchange resins and polymeric adsorbents, as produced, contain by-products resulting from the manufacturing process. The user must determine the extent to which organic by-products must be removed for any particular use and establish techniques to assure that the appropriate level of purity is achieved for that use. The user must ensure compliance with all prudent safety standards and regulatory requirements governing the application. Except where specifically otherwise stated, Rohm and Haas Company does not recommend its ion exchange resins or polymeric adsorbents, as supplied, as being suitable or appropriately pure for any particular use. Consult your Rohm and Haas technical representative for further information. Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Nitric acid and other strong oxidising agents can cause explosive type reactions when mixed with ion exchange resins.

Proper design of process equipment to prevent rapid buildup of pressure is necessary if use of an oxidising agent such as nitric acid is contemplated. Before using strong oxidising agents in contact with ion exchange resins, consult sources knowledgeable in the handling of these materials.

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Suggestions for uses of our products or the inclusion of descriptive material from patents and the citation of specific patents in this publication should not be understood as recommending the use of our products in violation of any patent or as permission or license to use any patents of the Rohm and Haas Company.

Material Safety Data Sheets outlining the hazards and handling methods for our products are available on request.

Rohm and Haas Company maintain a policy of continuous development and reserve the right to amend any specification. To get updated product information, please consult your nearest Rohm and Haas office.

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