

Deoiling and Clarification of Spent Antifreeze

Introduction

Automotive and industrial glycols become contaminated with emulsified oils and suspended solids and lose much of the additive package. Reclamation and reconstituting of the glycol/water mixture is achieved thermally or by use of membranes, both of which are adversely affected by these contaminants.

Experiment

Spent antifreezes from a variety of sources were tested, and ECA 15-2* at 1500-3000 ppm was found to remove completely all emulsified and dispersed contaminants, and yield clear, green, blue or phosphorescent mixture. It was also found that pretreatment with activated carbon, allowing 2-4 hour contact, prior to ECA addition, also removed most of the color. The resultant glycol/water mixture was colorless-to-pale yellow.

Results

ECA 15-2 is now widely used as described above. It has the additional benefits of not containing chlorides or any high-molecular weight polymer that would interfere with membrane processes.

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