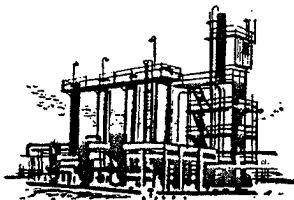


## problem

To meet ethylene consumer demand for a product that is essentially free of acetylene.



## solution

GIRDLER developed catalysts to selectively hydrogenate the acetylene in the presence of the ethylene. Acetylene content was cut more than 99% giving consumers what they wanted:

**Ethylene with less than 50ppm of Acetylene**



Girdler will gladly help solve your catalyst problems.

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## SPECIALTIES

# Update on an Amine

Just about as proud of Scientific Oil Compounding Co.'s new Copper Cunimene as its inventor is Hercules Powder Co. For while the novel antifungal agent is an effective addition to Scientific's line of preservatives, it means another valuable derivative based on Hercules' Rosin Amine D.

Introduced about eight years ago, Rosin Amine D and its derivatives have caught on well—the original plant has been outgrown, and early this year Hercules put into operation a \$1-million plant in Hattiesburg, Miss. Now, with that plant in smooth production, it's opening a brisk new campaign to find more outlets for RAD, and it looks to specialties makers for those markets.

A high-molecular-weight nitrogen compound based on rosin, Rosin Amine D is a cationic surface-active agent. Besides the products developed by others, Hercules has itself made a number of other derivatives of RAD: the acetate (RADA), several fatty acid salts, and, more recently, a group of 10 ethylene oxide adducts it tags Poly-rads. Poly-rads have been particularly successful; they now make up a large part of the output of the Hattiesburg plant.

So far, most developments with these amine products have been along three lines—biocidal activity, surface activity, and corrosion inhibition:

- Besides Copper Cunimene, the copper complex worked out by Scientific Oil, RADA has been used successfully as a preservative. It is generally used to protect protein solutions, such as go into wallpaper coating compositions. Another form, the pentachlorophenol salt, is now sold by some 10 formulators for preserving cellulosic materials; its major limitation is that exposure to sunlight destroys its activity (unless protected by a vinyl or rubber coating).

- Several makers of industrial cleaning compounds have taken advantage of Polyrad's ability to inhibit hydrochloric acid—it can be used in toilet bowl cleaners, etc. Similarly, it is used as an inhibitor in oil well acidizers, and in pumping wells to protect tubing and casing.

Hercules is currently courting oil refiners: it is selling its Polyrad as an inhibitor for corrosive hydrocarbons. Injected directly into refinery lines, it lowers corrosion in condensers, reboilers, and fractionating columns.

- Surface activity of RADA has accounted for some applications, too. It is used as a flotation agent in the separation of silica from feldspar and

phosphate ores. It prevents separation of asphalt and gravel under wet conditions when it is used as an "anti-stripping" agent in outback (thin) asphalt paving materials.

In the manufacture of paints and inks, RAD serves as wetting and dispersing agent, and for pigment flushing. Polyrad and RADA have been used as textile wetting agents.

These are only a few of the many uses for RAD and its derivatives developed so far. Their variety illustrate again the way cationics get the offset jobs (CW, Oct. 9, p. 74), and Hercules hopes they're signposts for applications yet to come.

## Limit on Lead

Paintmakers got a new regulation to follow, and city health departments a matter for study, with New York City's ruling last week that paint sold there must carry a warning label if its lead content is more than 1%.

The edict, which is designed to eliminate lead as a pigment (the term "one per cent" will still permit incorporation of lead driers), specifically applies to paints that are not clearly labeled as exterior coatings. The rule is in the form of an amendment to the city's Sanitary Code.

Purpose of the regulation is to reduce the hazards associated with unknown use of lead-containing paints. Since 1950, the health department says, some 49 deaths have resulted from lead poisoning. The fatalities, all children, apparently came about when the children nibbled repainted surfaces (from home-painted furniture or toys).

The paint industry has until next May 1 to comply with the regulation—either relabel or reformulate to reduce lead content. Richard Eckart of the National Paint, Varnish and Lacquer Assn., an industry representative attending the department meeting when the ruling was made, pointed out that already many paints do not contain lead, and that manufacturers will seek ways to further curb its use.

Guidepost: Although the ruling is strictly a local matter now, New York's health department says it hopes the regulation will be a model for other cities and states.

For complete details on the Sanitary Code amendment, paint manufacturers should contact Jerome Trichter, assistant commissioner, New York City Board of Health, Room 316, 125 Worth St., New York, N.Y.

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