ROSTAB™
Disproportionation catalyst and bleaching agent for the rosin & ester industry
“Value to Create” signifies Riverside™ competence in research and development, enhanced technologies and products, innovation and quality. To meet the growing demands for rosin related product in the paper size, ester gums and synthetic resins, protective coatings, adhesives, greases, rubber polymerization and foundry supplies, emulsifiers for disinfectants, suppliers are increasingly asked to deliver systems which provide high reliability, cost effectiveness, safety and a minimized environmental impact.

Riverside™ is well positioned to help meet these challenges, offering an excellent reputation for quality, with industry leading products such as ROSTAB® 007 disproportionation catalyst, and the broadest range of color improving solutions in the market.

We continue to add technical and expert resources to accelerate the delivery of true innovation. With a significant number of registered active patents, we continue to strongly invest in innovation to improve product performance and cost optimization, and to maintain our position at the forefront of rosin and ester industry. ‘Greener is better’ is at the heart of our product development, new products will always be greener than what came before.
Rosin is derived from pine trees, chiefly Pinus palustris and Pinus caribaea. Gum rosin is the residue obtained after the distillation of turpentine oil from the oleoresin tapped from living trees. Wood rosin is obtained by extracting pine stumps with naphtha and distilling off the volatile fraction. Tall oil rosin is a by-product of the fractionation of tall oil. The chief constituents of rosin are the resin acids of the abietic and pimaric types, having the general formula C_{19}H_{29}COOH and having a phenanthrene nucleus.

Disproportionated rosin has good oxidation resistance, low brittleness, high thermal stability and light color, and maintains a high softening point, even higher than the original rosin due to the elimination of turpentine oils during disproportionation at 200 to 240°C. It is applied in several industries: adhesives (hotmelt and pressure-sensitive adhesives), solder flux, printing inks, paper neutral-size – after saponification – and more. It has some important applications in the polymeric industry where abietic acid presence is not adequate, because it acts as an inhibitor (amounts as low as 0.5% in abietic acid are looked up) and very high percentages in dehydroabietic acid are desired (65% or more): as an emulsifier in the production of styrene butadiene rubber and ABS resin and chloroprene rubber. New fields where applications are being developed include the synthesis of nonionic surfactants, applications in the coating industry in water-based paints, and slow-release fertilizers.

Esterified rosin products are used extensively for preparing adhesives, coatings, ink varnishes and other materials. Rosins are esterified by the thermal reaction of the rosin with an alcohol such as a polyol. A polyol in widespread use today is pentaerythritol, with four active hydroxyl groups. Tall oil rosin is widely used as a source of rosin for its availability and low cost. The rosin ester market of today requires lighter colored products than are currently available. The known methods to produce lighter colored rosins are expensive since they result in rosin quality improvements at the expense of rosin yield. Such methods include the use of solid adsorbents such as carbon, esterifications in solvent, or the use of hydrogenation of the ester. Each of these techniques, while producing rosin esters with desirable characteristics, are time consuming and add unacceptable cost of the final product.
Ain’t no mountain high enough

We understand our customers' need for a high stability of the particular formulations and derivatives prepared from the rosin. That’s why we developed ROSTAB® searal color improving additives. These unique products make rosin & ester lighter color with the addition of substantial stability. We are committed to the success of our customers, which is why we offer you the technological answers you need. We challenge the future and scale heights that have never been conquered before.
<table>
<thead>
<tr>
<th>Product Name</th>
<th>Chemical type</th>
<th>Physical Form</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROSTAB 323</td>
<td>Poly alkylphenol disulfide</td>
<td>Viscous liquid</td>
<td>200kg/drum</td>
</tr>
<tr>
<td>ROSTAB 003</td>
<td>Poly alkylphenol disulfide</td>
<td>Pastilles</td>
<td>25kg/bag</td>
</tr>
<tr>
<td>ROSTAB TB7</td>
<td>Poly alkylphenol disulfide</td>
<td>Pastilles</td>
<td>25kg/bag</td>
</tr>
<tr>
<td>ROSTAB 300</td>
<td>Alkyl phenol monosulfide</td>
<td>Powder</td>
<td>25kg/bag</td>
</tr>
<tr>
<td>ROSTAB 1425</td>
<td>Calcium salt of dibasic phenol substituted phosphonate</td>
<td>Powder</td>
<td>25kg/bag</td>
</tr>
</tbody>
</table>
ROSTAB™
Disproportionation catalyst
and bleaching agent
for the rosin & ester industry

RIVERSIDE NEW MATERIALS CO., LTD.
7 Wuyang, Shibei District
Qingdao
China
Rosin Chemicals Division
Phone +86 (0) 532 8093 2738
Fax +86 (0) 532 6777 3200
inquiry: info@rivmat.com