



Catalyst J-30 M-2

General description

*Iodine catalyst for disproportionation of rosin and distilled tall oil.
Water solution of iodine compounds, activators and stabilizers.*

Technical parameters

*Appearance: clear green liquid
Density, g/dm³: 1230
Iodine content, % ca.: 30
Working temperature, °C: 235 - 240
Working concentration, %: 0,5 - 2,0
Catalytic activity,
Abietic acid content in disproportionated rosin, %: below 1,0*

Package and transportation

*Polyethylene barrels of capacity 200 dm³ or 1 m³.
Transportation by all means of transportation in accordance with the regulations in force.*

Disproportionation test description

*Catalytic activity of our catalyst is determined in the disproportionation test in the following way:
100 grams of rosin and 2 grams of Catalyst J-30 M-2 are mixed together in a three-neck flask of capacity 250 ml and equipped with a mechanical agitator, thermometer and an inlet of nitrogen or carbon dioxide. Temperature is increased while continuous mixing. Water evaporates at about 100°C. Temperature is then increased to 240°C and maintained for two (2) hours.
Product is poured out on aluminium foil and abietic acid content is determined.*

Iodine regeneration

The use of iodine catalysts such as J-30 M-2 is connected with the volatile iodine compounds present in off-gases. Because of ecological and economical reasons these compounds are absorbed and the product is sent back to the catalyst supplier. Iodine compounds absorption equipment is easy to obtain and typical. The absorbing substance is cheap and easily available. Other problems connected with the by-products utilization can be solved during further consultations.

Reference plants

Catalyst J-30 M-2 was used for fifteen years for disproportionation of gum rosin, tall oil rosin as well as distilled tall oil. Tall oil rosin is disproportionated in the continuously operated plant with the working catalyst concentration of about 1,5 %.

The final product has the following parameters:

*Abietic acid content below 0,6 % (typically 0,2 %)
Acid number above 160 (typically 162)*

*Distilled tall oil is disproportionated batchwise and working catalyst concentration is about 0,5 %.
The final product does not contain abietic acid and its acid number is higher than 165.
The products from these operations are used mainly as intermediate products for production of emulsifiers for the synthetic rubbers production.*