



RubberSeed fatty Acids- Specification , IS 12124:2023

Rubberseed fatty acids are manufactured by hydrolysis of rubber seed oil. Rubber seed oil is obtained from seed kernels of rubber trees (*Havea basiliensis*) and stearic acids.

Over the years concerted efforts have been made to find alternative sources of Oils to augment the supply of the existing ones and as much as possible to find non edible source of Oils for non edible Industrial uses and vice versa in order to reduce the food and non- food clashes of the oils and to ease burden on the vegetable oils which can be used for the Human consumption.

Rubber seed oil is an example of the sustainable resource , offering both consumer and Industrial benefits especially in the context of the renewable energy & biodegradable product. Rubber seed oils contains a variety of fatty acids that have potential uses in several industries.

Rubberseed fatty acid contains mainly unsaturated fatty acids (75 percent). They are linoleic (30 percent to 40 percent), linolenic (20 percent to 24 percent) and oleic acid (17 percent to 30 percent). Saturated fatty acids are palmitic. They are used in the Soap Industry after hydrogenation and as semi drying oils in paint and varnish industries.

The **quality parameters of rubber seed fatty acids are** critical for determining their suitability for various industrial applications, such as biodiesel production, cosmetics, and lubricants. These parameters help assess the chemical composition, stability, and overall performance of the oil derived from rubber seeds.

To address the above quality parameters, Bureau of Indian Standards has formulated IS 12124 .This Standard prescribes the requirements , methods of sampling and tests for rubberseed fatty acids.

IS 12124 prescribes the type of material(Soft and Hard), the description that the Rubber seed fatty Acid shall be produced by distilling crude rubber seed fatty acid obtained by splitting rubber seed oil.

The Standards also provide the Quality parameters against which the quality of the RSFA is evaluated for the Intended application in the various Industries. The key parameters are moisture, Saponification value, Acid value, Iodine Value, Mineral Acidity, Ash, Unsaponifiable matter, Titre, Colour, Flash point.

Standard has also laid down the requirements of the **packaging of the product and marking and labelling of the Containers** .

By analysing these quality parameters, manufacturers and researchers can determine the most suitable uses for rubber seed oil and fatty acids, ensuring their functionality in various applications like biodiesel, cosmetics, and industrial lubricants.