

KD - DBE (Dibasic Ester)

TECHNICAL DATA SHEET

I Chemical formula and molecular weight

- Chemical formula: $\text{CH}_3\text{OOC}(\text{CH}_2)_n\text{COOCH}_3$ $n=2,3,4$
- Molecular weight: 159 (average value)
- CAS No.: 95481-62-2



II Properties and application

- This product has extra-strong solvency, and is a biodegradable environmental friendly solvent with high boiling point. Dupont named it DBE while Solutia named it DME; it is a mixture of three kinds of solvents and is also known as dibasic ester (commonly called as Dimethyl nylon acid).
- The main components of this product are dimethyl succinate $\text{CH}_3\text{OOC}(\text{CH}_2)_2\text{COOCH}_3$ 15-25%, dimethyl glutarate $\text{CH}_3\text{OOC}(\text{CH}_2)_3\text{COOCH}_3$ 55-65%, and dimethyl adipate $\text{CH}_3\text{OOC}(\text{CH}_2)_4\text{COOCH}_3$ 10-25%. The proportion of each component is adjustable.
- Non-toxic, colorless, transparent liquid with slight odour, b.p.196-225°C, m.p.-20°C, refractive index 1.4220 (23°C), density 1.082 (23°C), and flash point 100°C.
- It is widely used in many different industries, such as: coil coatings, stoving varnish, tin/container coating, automobile coating, varnished wire coating, furniture coating and water-based paint, printing ink industry, resin industry, intermediate for organic synthesis, industrial cleaning machines and so on.

III Quality standard

Specification	Index
Appearance	Colorless, transparent liquid
Ester content, % \geq	99
Dimethyl Succinate %	15-25
Dimethyl Glutarate %	55-65
Dimethyl Adipate %	10-25
Water content, % \leq	0.1
Color(Pt-Co), code No. \leq	20
Acid value, mgKOH/g \leq	0.3

IV Package and storage

- Net weight 220kg steel drum, 1100kg/IBC drum and bulk. Transportation according to normal liquid freight transportation restrictions.
- Stored in a dry, cool and ventilated place. Avoid violent collision and rain during handling and shipping. No special cautions in storage and can be stored in ordinary vessels. No corrosivity, no photochemical reactions, better to store in dark place.
- Non-harmful substance, low flammability, but can be ignited under excessive heat, flame or oxidizing agents.