



At Biosynthetic Technologies, we provide castor derived high-performance fluids that are natural and sustainable. We offer our customers high-performance, environmentally friendly ingredients that add further functionality to their end products. Our bio-based products are specifically formulated to match our customers' needs and to provide solutions to the distinct challenges in the metalworking fluid market. Our products perform exceptionally well in a variety of functions, and often, they represent formulation improvements that offer greater product uniformity and cost savings.

Castor Derivatives for Metalworking Fluids

The most important functions of a metalworking fluid are to cool and to lubricate. These functions extend the life of the tool, reduce friction and flush chips and swarf from the cutting zone. Biosynthetic Technologies offers a range of castor derived products that deliver the high content of Ricinoleic Acid (RA), which is used in metalworking applications. The unique structure of castor oil offers interesting properties, making it appropriate for various industrial applications. These are all castor oil derivatives with sales approval for US (EPA, Canada (CEPA), and Europe (REACH)).

PRODUCT	CAS Number
RA HOMOPOLYMER - AV 100	61789-44-4
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DI-SODIUM SEBACATE	17265-14-4
Di-ETHYLHEXYL SEBACATE	122-62-3

About Biosynthetic Technologies

Biosynthetic Technologies manufactures a revolutionary new class of biobased synthetic compounds called Estolides that are made from organic fatty acids found in various bio-derived oils. These highly functional biosynthetic oils have numerous uses in lubricant, automotive, marine, and personal care applications and can be used as the primary base oil of a lubricant formulation, a component of a base oil co-blend, or even as an additive. In addition, Biosynthetic Technologies offers a line of castor derived products used in the formulation of metalworks fluids and Food Grade Lubricants.

At Biosynthetic® Technologies, we understand the importance of sustainable manufacturing practices. We are constantly looking for ways to minimize the negative impacts on the environment while conserving energy and natural resources. Our objective is to make sustainability a point of difference for our business, and we are confident that this strategy will generate even greater benefits for the environment in which we operate, the people that we work with and the communities we are part of. Biosynthetic® Technologies is committed to sustainability and clearly focused on the responsible use of natural resources in our daily business. We understand that health, environmental awareness and traceability play just as large a role for consumers as quality and efficacy. Biosynthetic® Technologies is aware of its responsibility in this business and sustainability. As such, our manufacturing facility is operating with a NEGATIVE carbon footprint!

Biosynthetic Technologies delivers quality raw materials with high-performance properties that are renewable, biodegradable, sustainable, non bioaccumulative and nontoxic.

***Biosynthetic Technologies:
Delivering Innovations for a Sustainable Future.***



Biosynthetic FAE RA 50

Ricinoleic Acid Homopolymer
CAS # 61789-44-4

Standard Specification

Property	Typical Results
TOTAL ACID NUMBER (MG KOH/G)	45-55
POUR POINT (°C)	< -10
FLASH POINT, COC (°C)	224
SAPONIFICATION VALUE (MG KOH/G)	180-190

Attributes/Benefits:

- High thermal and oxidative stability
- Biodegradable
- Bio-based
- Non-toxic

Applications:

- Metalworking fluids
- Lubricity improver
- Emulsifier
- Coupling agent

Biosynthetic FAE RA 100

Ricinoleic Acid Homopolymer
CAS # 61789-44-4

Standard Specification

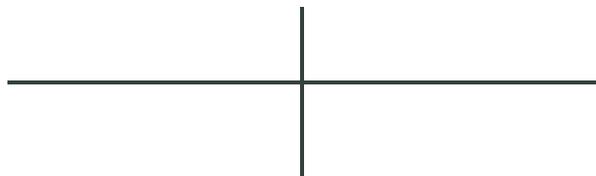
Property	Typical Results
TOTAL ACID NUMBER (MG KOH/G)	90-105
POUR POINT (°C)	< -10
FLASH POINT, COC (°C)	224
SAPONIFICATION VALUE (MG KOH/G)	183-189

Attributes/Benefits:

- High thermal and oxidative stability
- Biodegradable
- Bio-based
- Non-toxic

Applications:

- Metalworking fluids
- Lubricity improver
- Emulsifier
- Coupling agent



Biosynthetic ES DES

Di-Ethylhexyl Sebacate
CAS # 122-62-3

Standard Specification

Property	Typical Results
KINEMATIC VISCOSITY @ 40°C (CST)	12
KINEMATIC VISCOSITY @ 100°C (CST)	3
VISCOSITY INDEX	125
TOTAL ACID NUMBER (MG KOH/G)	0.15 MAX
POUR POINT (°C)	-60
SPECIFIC GRAVITY	0.913

Attributes/Benefits:

- High Thermal Stability
- Biodegradable
- Non-Toxic

Applications:

- Industrial lubricants
- Marine lubricants
- Process oils

Biosynthetic AD DSS

Disodium Sebacate
CAS # 17265-14-4

Standard Specification

Property	Typical Results
PURITY	96% MIN
WATER SOLUBILITY	MOSTLY TRANSPARENT

Applications:

- Coolants/Antifreeze
- Corrosion inhibitor in grease formulations

Contact information:

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