

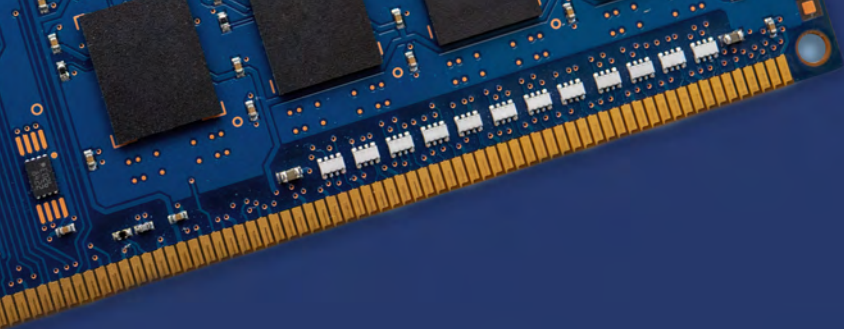


YOUR PARTNER IN FINE CHEMISTRY

JAYHAWK THERMOSET ADDITIVES

Dianhydrides and crosslinkers for a competitive edge





CABB: Your Partner in Fine Chemistry

CABB Group GmbH is a leading custom manufacturer of starting materials, active ingredients and advanced intermediates; a major producer of high-purity monochloroacetic acid; and a supplier of premium fine chemicals. We are small enough to focus on attentive customer partnerships, yet large enough to master complex chemical synthesis. Customers benefit from **CABB's** manufacturing excellence, product quality, security of supply and collaborative approach to sourcing solutions.

CABB's technology platforms represent broad competencies in fine chemistry, unit operations and technical services from our sites in Switzerland, Finland and USA. The **JAYHAWK** Thermoset Additives platform is a collection of products supported from our US location in southeastern Kansas.

JAYHAWK Thermoset Additives

Polymer chemicals to meet your performance and sourcing needs

Do you have a better idea for a powder coating, a fiber-reinforced composite or perhaps a colorless film—a product that provides superior performance under adverse service conditions? Whether formulating an epoxy, polyimide or hybrid resin system, **CABB** offers the polymer chemicals you need with dedicated support to get you from proof of concept, to pilot scale, to full commercial production without delay.

JAYHAWK Dianhydrides:

A legacy of proven value, a link to a promising future

Dianhydrides are essential co-monomers for the preparation of polyimides and thermal curatives for epoxy resins. Produced via complex chemical syntheses, dianhydrides require manufacturing expertise for safe, reliable supply. **CABB** is the undisputed leader of this technology.

BTDA[®]

Our flagship product, **JAYHAWK BTDA** (3,3',4,4'-Benzophenone tetracarboxylic dianhydride), represents an enabling technology for epoxies and polyimides. Remarkable for its property enhancement, **JAYHAWK BTDA** contributes to sustained performance in aggressive chemical, thermal and electrical environments—allowing parts to run without failure and extending their service life. BTDA is a legacy product with a bright future, providing a competitive advantage to modern applications including smart devices, microelectronics and electric vehicles.

2-Allylphenol

JAYHAWK 301

CAS: 1745-81-9

4,4'-Oxydiphthalic anhydride

JAYHAWK ODPa Ultrapure

CAS: 1823-59-2

2,2'-Diallyl bisphenol A

JAYHAWK 302

CAS: 1745-89-7

2,3,3',4'-Benzophenone tetracarboxylic dianhydride

JAYHAWK a-BTDA Ultrapure

CAS: 104677-79-4

3,3',4,4'-Benzophenone tetracarboxylic dianhydride

JAYHAWK BTDA (4 grades)

CAS: 2421-28-5

4,4'-(Hexafluoroisopropylidene) diphthalic anhydride

JAYHAWK 6FDA (2 grades)

CAS: 1107-00-2

Cyclobutane-1,2,3,4- tetracarboxylic dianhydride

JAYHAWK CBDA

CAS: 4415-87-6

Cyclohexane tetracarboxylic dianhydride

JAYHAWK CHDA

CAS: 2754-41-8

Pyromellitic dianhydride

JAYHAWK PMDA Ultrapure

CAS: 89-32-7

Need to source another dianhydride, or have an idea for a new molecule? Reach out to our CABB team and explore our custom manufacturing services.

JAYHAWK Crosslinkers:

The bridge to new hybrid polymer solutions

When resin chemistries need to be combined to create hybrid polymers, call on **CABB** for answers. Our expertise in synthesizing molecules with unique reactive groups empowers you to reimagine traditional polymers with new performance properties—from increased rigidity to improved thermal resistance. Have requirements for specific functionalities? Partner with **CABB** to design new crosslinkers for untapped markets.


When sourcing is mission critical, CABB assures:

QUALITY

Fully-integrated EHSQ management systems that conform to ISO 9001 and cGMP quality standards for the most rigorous customer and regulatory requirements

INNOVATION

Purity, particle-size and packaging matched to your



process, as well as custom manufacturing services for new product development

PARTNERSHIP

Collaboration via applied technology support and long-term relationships to deliver value and a competitive edge for your business

SAFETY


Fully-integrated EHSQ management systems that conform to RC 14001 and PSM standards to safeguard the health and welfare of team members, customers, the public and the environment

SUSTAINABILITY

Secure, reliable manufacturing processes based on supply chain integration, unique vendor partnerships and contingency planning for dependable, timely delivery

Dianhydrides in Epoxies

The key to long-term service in high-temperature, electrical and corrosive environments.



JAYHAWK dianhydrides from **CABB** are critical ingredients for a variety of applications and technologies, enabling components to function reliably in high-temperature service. When epoxy formulations are optimally cured with dianhydrides, they can deliver glass transition temperatures in excess of 200°C and improved dielectric behavior, mechanical properties and chemical resistance.

Both new and established customers continue to rediscover the benefits of JAYHAWK dianhydrides in applications including:

- Fusion-bonded epoxy (FBE) coatings for pipeline protection
- Wire varnishes and enamels for electrical components
- High-temperature industrial adhesives
- Coating powders for electrical insulation (e.g. wiring, busbars, switches)
- Mass-cast insulators for high-voltage electricity
- High strength-to-weight composite materials to replace metals

Looking for supporting data or further resources on epoxy-anhydride chemistry?
Visit **dianhydrides.com** for details.

Dianhydrides in Polyimides

Innovation starts here.

As building blocks for polyimide resins, **JAYHAWK** dianhydrides support innovation in some of the most advanced technologies for consumer, commercial and defense industry applications.

Lives are made better, safer and easier because of:

- Flexible printed circuitry and foldable displays for smart devices
- Composite components for automotive and aviation
- Thermal & acoustic insulation for aircraft and marine vessels
- Bushings and bearings for industrial equipment
- Filters and membranes for separation technology
- Coatings and tubing for medical devices
- Radiation shielding for spacecraft

Polyimide matrix resins made with **JAYHAWK** dianhydrides are stable enough for continuous service in high-temperature environments above 350°C. In thin films, they offer sustained dielectric performance, allowing for densely packed electrical circuitry to function reliably in smartphones, tablets and wearables. The latest generations are transparent and colorless, enabling the newest foldable display technology.

Partnering with **CABB** allows formulators to achieve more with premium fine chemicals sourced from a reliable, secure supply chain.





YOUR PARTNER IN FINE CHEMISTRY

To learn more about **CABB's** products and services, please reach out to us:

Jayhawk, USA
inquiry@jayhawkchem.com



Kokkola, Finland
info@cabb-chemicals.fi



Pratteln, Switzerland
contact@cabb-chemicals.com



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