

Biobased Products **Benelux**

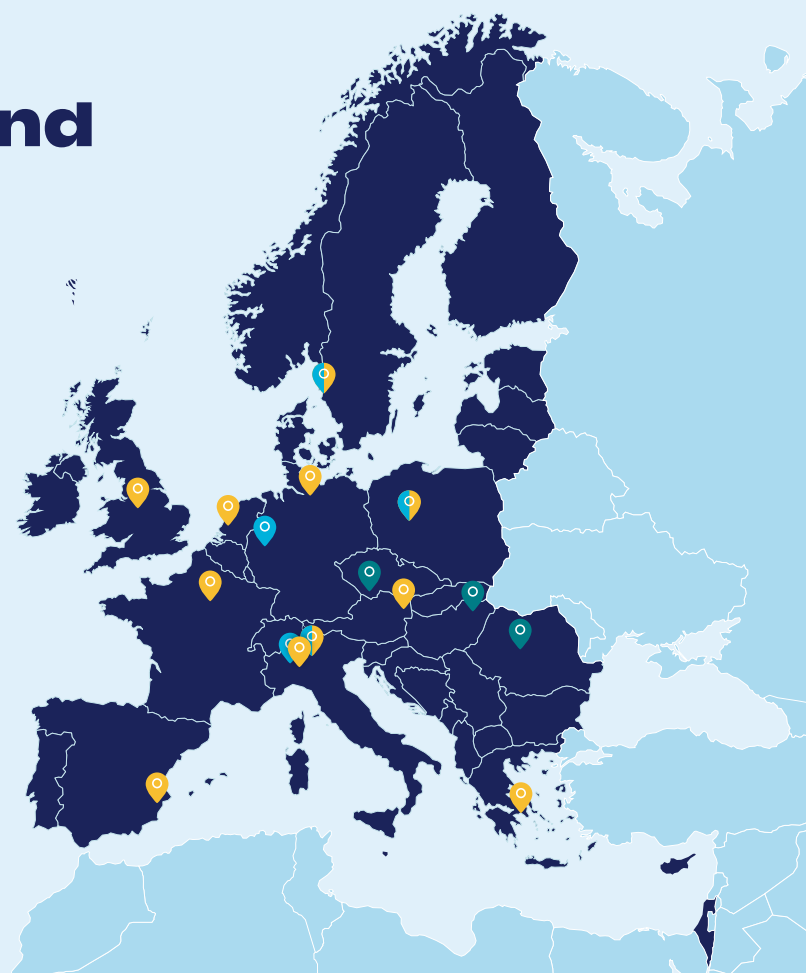


Your high-performance partner for specialty chemicals.

We are a leading independent chemical business providing sales, marketing and distribution services and are recognized world-wide for our technical expertise and high-quality product portfolio as well as in-house laboratory support. Everything we do is with passion and commitment and always with an eye on the best possible outcome.

Our locations

Thinking global and acting local



KRAHN Subsidiaries

- Hamburg
- Zaandam
- Milan and Berbenno
- Poznań
- Avon
- Athens
- Gothenburg
- Sandbach
- Aspe
- Vienna

Sales offices

- České Budějovice
- Tiszaújváros
- Sibiu

Laboratories

- Bottrop
- Poznań
- Gothenburg
- Lainate and Berbenno

Warehouses

Many warehouses across Europe, also with possibilities for bulk breaking

Introduction

The chemical industry considerably contributes to greenhouse gas emissions, and is increasingly committed to the development of sustainable and climate-friendly products. One of the possible solutions is the use of biobased materials.

This brochure organizes our biobased products into categories based on leading standards. By doing so, we aim to align the definitions across the industry and avoid the possibility of greenwashing. Additionally, it allows you to easily find the biobased materials you are looking for to achieve your goals when driving the sustainability profile of your products.

Biobased products

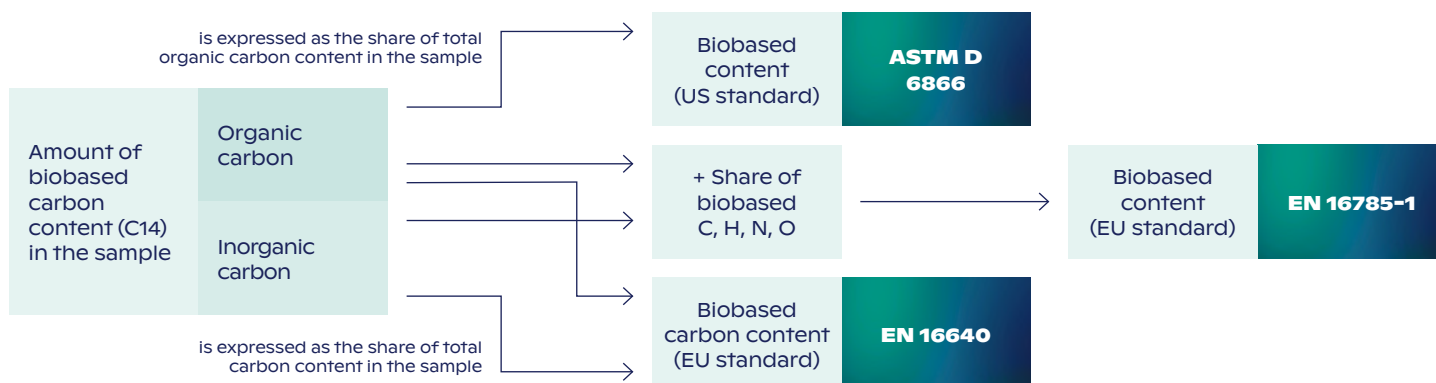
The Standards

– **ASTM D 6866** – is a US standard and describes the percentage of biobased organic carbon in the total amount of organic carbon in the sample. The method is based on the decay of C14 isotopes, which does not take into account fossil carbon present in the product.

European standards distinguish between biobased content and biobased carbon content. Separate standards have been developed for these different approaches.

– **EN 16640** – According to this method, the biobased carbon content is expressed as a percentage of the total mass or as a percentage of the total carbon content. Shows the concentration of biobased organic and inorganic carbon in relation to the total amount of carbon in the sample.

– **EN 16785-1** – Calculates the amount of biobased C, H, N, O, expressed as a percentage of the total mass of the sample. These elements are considered to be biobased if they are bound to carbon derived from biomass.



Eastman Chemical

Product Group	Product Name	Application	% bio-content (%C14)	% bio-content (% cellulose)
SAIB (Sucrose acetate isobutyrate)	Eastman Sustane™ SAIB	Modifying resin. SAIB can yield coatings and printing inks of higher non-volatile content, resulting in lower solvent requirements and greater coverage. In many cases, film adhesion and gloss are improved.	39	30
	Eastman SAIB-100		39	30
Cellulose Acetates	CA 320S	Cellulose acetate types with different degrees of acetylation and viscosity for solvent-borne high solids and UV-curable systems.	63	68
	CA 394-60LF		55	60
	CA 398		55	60
Cellulose Acetates Butyrate	CAB 321-0.1	Additives for reduced drying time, improved flow and levelling, sag control, redissolve resistance, hot melts, high solids and UV-curable systems.	53	46
	CAB 381-0.1		50	42
	CAB 381-0.5		50	42
	CAB 381-20		50	42
	CAB 551-0.01		47	38
	CAB 551-0.2		47	38
	CAB 553-0.4		51	42
Cellulose Acetates Propionate	CAP 482-0.5	CAP properties are intermediate between CA and CAB. They resemble CAs in many performance properties but with improved solubility and compatibility. Like acetates, CAPs have low odour and can be used where that is a requirement.	54	46
	CAP 504-0.2		59	51

Ecoat France SAS

Product Group	Product Name	Application	% organic content (EN 16640)
Water-borne alkyd emulsions	Secoia™ 1400	Secoia aqueous alkyd resin emulsions are manufactured in France using a licensed process. They are ideal for formulating coatings with reduced carbon footprints due to their high content of biobased raw materials. Main applications are interior wall paints and wood impregnation.	>96
	Secoia™ 1501		88
	Secoia™ 4400		>96
	Secoia™ 4487		99
Water-borne alkyd urethane dispersions	Inokem™ UR 3301	Inokem UR are urethane modified alkyd dispersions of medium oil length for air-drying outdoor resistant coatings, main application in DTM and wood coatings.	53
	Inokem™ UR 3304		50
	Inokem™ UR 3308		69
	Inokem™ UR 3309		50

Valtris Specialty Chemicals

Product Group	Product Name	Application	% organic content (EN 16640)
Biobased primary plasticizer	Santicizer Platinum G-2030	Santicizer Platinum G-2030 is an efficient biobased primary plasticizer that offers excellent heat stability, enhanced processability, and lower volatility than traditional general-purpose plasticizers.	85

KRAHN Chemie Group

Product Group	Product Name	Application	% organic content (EN 16640)
Citrates	Crane Plast ATBC	Biobased plasticizer. Good compatibility with other polymers. It is applied in products with food contact.	<14

ATUL Itd

Product Group	Product Name	Application	% organic content (EN 16640)
Biobased Liquid Epoxy Resins	Lapox AR 101 G	Biobased epoxy resins (Bis A, Bis F and Bis A/F) for adhesive and sealants applications, excellent adhesion on brass, chrome and aluminium.	28
	Lapox ARF-11 G		32
	Lapox ARFM-12 G		28-32
Biobased Reactive Diluents	Lapox ARD-13 G	Biobased reactive diluent: mono- and di-functional diluents for epoxy systems to reduce viscosity and improve biobased content of final formulations.	100

Mitsubishi Chemical Group

Product Group	Product Name	Application	% organic content (EN 16640)
Polycarbonate Diol (HS)	BeneBioI HS0830B	PCD which generates polymers with characteristics such as durability and chemical/hydrolysis resistance. Shows outstanding property levels with regard to high hardness, excellent abrasion and chemical resistance to conventional PCD.	35
	BeneBioI HS0840B		43
	BeneBioI HS0840H		37
	BeneBioI HS0845H		44
	BeneBioI HS0830S		83
	BeneBioI HS0840S		84
Polycarbonate Diol (NLDB/D)	BeneBioI NL1010DB	Biomass derived with good mechanical properties and chemical resistance. Improve flexibility at low temperatures.	22
	BeneBioI NL1570DB		78
	BeneBioI NL1030DB		45
	BeneBioI NL2010DB		21
	BeneBioI NL3010DB		21
	BeneBioI NL2030DB		45
	BeneBioI NL1000D		93
	BeneBioI NL2000D		92
Polycarbonate Diol (NLDS)	BeneBioI NL1030DS	Biomass derived with good mechanical properties and chemical resistance. Improve flexibility at low temperatures.	86
	BeneBioI NL2010DS		82
	BeneBioI NL2030DS		85
	BeneBioI NL3010DS		81
Polycarbonate Diol (NLS)	BeneBioI NL1030S	Biomass derived with good mechanical properties and chemical resistance. Improve flexibility at low temperatures.	52
	BeneBioI NL2005S		74
	BeneBioI NL2030S		52
Polyol	BioPTMG650	Addition to comparable quality of conventional PTMG, the biobased content of BioPTMG is high and it can contribute to the expansion of our customers' plant-based products.	>95
	BioPTMG1000		>95
	BioPTMG2000		>95
	BioPTMG3000		>95

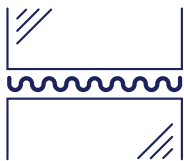
Nouryon

Product Group	Product Name	Application	% bio-content (% cellulose)
Rheology Modifier	Bermocoll®	Cellulose ethers provide increased water retention, improved consistency and control rheology to provide sag resistance.	≥ 50 – 65 %
	Bermocoll® Prime	Versatile cellulose ether with advanced color compatibility and rheology control to enhance touch up properties.	≥ 50 – 65 %
	Bermocoll® EHM/Flow	EHM = Hydrophobically modified cellulose Ether. It combines flow and leveling properties of an associative synthetic thickener (e.g. HEUR) and has the stability properties of a cellulose thickener. Performs particularly well in acrylic and vinyl acrylic formulations. EHM is also associative but not replacing HEUR, as Flow is.	≥ 50 – 65 %
Rheology Modifier	Finnfix	Broad portfolio of carboxymethyl celluloses. Used in a paint formulation to stabilize, improve adhesion, eliminate splashing and sagging. Suitable for high pH silicate paints.	~ 80 %

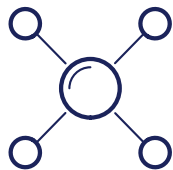
Synthos

Product Group	Product Name	Application	% bio-content (%C14)
Acrylic co-polymers	Synthos AB Bio	Bio-based acrylic copolymer dispersion for interior and exterior decorative coatings with high stain blocking resistance. Has low water absorption, high wet scrub resistance and high flexibility. Provides excellent stain resistance properties.	~ 30 %
	Synthos AM Bio	Bio-based acrylic copolymer dispersion for interior and exterior decorative and protective coatings and acrylic and silicone plasters. Has low VOC content and very good adhesion to mineral and wood surfaces.	~ 30 %
	Synthos AW Bio	Bio-based multiphase self-crosslinking acrylic copolymer dispersion for transparent and pigmented wood lacquers. Has low VOC-content and exhibits very good anti-blocking, fast hardening, excellent wet adhesion and chemical resistance of the coating.	~ 20 %

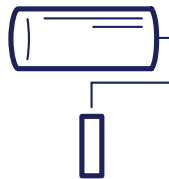
Industries



**Adhesives &
Sealants**



**Chemical
Intermediates**



Coatings



Construction



**Heat Transfer
Fluids**



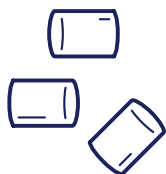
**Industrial Cleaning &
Home Care**



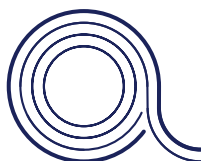
**Lubricants &
Fuels**



**Personal
Care**



Plastics



Rubber

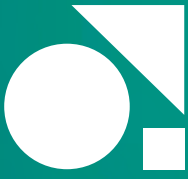
Produkt Disclaimer

1. Any information given on the chemical and physical characteristics of our products, including technical advice on applications whether verbally, in writing or by testing the product, is given to the best of our knowledge. However, this information is given without obligation and does not exempt the buyer from carrying out own investigations and tests in order to ascertain the product's specific suitability for the purpose intended. The buyer is solely responsible for the application, utilization and processing of the products, and must observe the laws and government regulations and the consequential rights of any third party. Any exception of the above-mentioned restrictions requires the manufacturer's express release in writing.
2. The products sold and/or supplied by us are not destined for the manufacture (i) of medical devices according to EU directive 93/42/EEC, in particular of implants, (ii) of biocides, (iii) of pesticides, (iv) of human and veterinary pharmaceuticals, (v) of food and feed products, (vi) of cosmetics, (vii) of weapons or other objects, designed to take human life or causing injuries.
3. At all times our Conditions of Sale apply.
4. Our product lists include dangerous goods. The correct marking of such goods is described in the respective datasheets.

KRAHN Chemie Benelux B.V.
Westzijde 138
1506 EK Zaandam

+31 75 6351788
info.nl@krahne.eu
krahne.eu

**Bring it
together!**



KRAHN Chemie brings
together all the elements
designed to create strong
added value: markets with
innovations, processors with
producers and questions
with answers.

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