



Product Regulatory Overview (PRO) K-Resin® XK41 Styrene-Butadiene Copolymer

Product Manufacturer

K R Copolymer Company Ltd. (KRCC)

Chemical Inventories

All the components of this product are listed on

AUSTRALIA: Australian Inventory of Chemical Substances (AICS)

CANADA: Non-Domestic Substances List (NDSL)

PEOPLE'S REPUBLIC OF CHINA: Inventory of Existing Chemical Substances (IECSC)

EUROPEAN UNION: All necessary components have been registered according to Regulation (EU) No. 1907/2006 (REACH)

JAPAN: Existing & New Chemical Substances (ENCS) Inventory

KOREA: Existing Chemicals List (ECL)

PHILIPPINES: Philippine Inventory of Chemicals and Chemical Substances (PICCS)

NEW ZEALAND: Exemptions from the obligation to register

UNITED STATES: Toxic Substances Control Act (TSCA) Chemical Inventory

Food Contact

European Union (EU) Food Contact

All constituents of this resin are listed in Commission Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food and all its Amendments.

This product was tested per EU Directive 82/711/EEC. The tested sample thickness was 0.43 mm (17 mils). This product was tested with 3% acetic acid for 10 days at 40°C, with 15% ethanol for 10 days at 40°C, with 95% ethanol for 10 days at 40°C, and with olive oil for 10 days at 40°C. This product complies with the overall and specific migration limits. This product is suitable for contact with dry, aqueous, acidic, alcoholic and fatty foodstuff for any time at room temperature provided a reduction factor of 5 or above as per EU Directive 85/572/EEC is assigned to the fatty foodstuff.

No dual-use additives were used in amount that can significantly (more than 5% of its limit) increase the amount in food.

This product meets the requirements of Framework Regulation (EC) No. 1935/2004 on materials and articles intended to come in contact with food.

This product is produced in accordance with good manufacturing practice (GMP) as outlined in EU GMP Regulation (EC) No 2023/2006.

U.S. FDA Food Contact

This product meets the specifications of the United States FDA Food Contact Notification 627. By virtue of this compliance, this product may be used as a component of articles for use in contact with food. There are no regulatory food types or temperature restrictions on this resin as defined under 21 CFR 176.170.

This product is produced in accordance with good manufacturing practices (GMP) as outlined in 21 CFR 174.5.



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It is the responsibility of the converter to verify that the finished article meets both the technical and regulatory requirements of the intended application.

U.S. Pharmacopeia (USP)

This product has not been tested under any U.S. Pharmacopoeia guidelines.

Drug Master File (DMF)

This product is listed on the U.S. FDA Type III Drug Master File 2406.

Regulation 1223/2009 of 2009-11-30 on Cosmetic Products

Regulation 1223/2009 is not applicable to this product. This product is not defined in the regulation as a cosmetic product, and it does not contain any substances listed as prohibited in cosmetic products.

EU Classification and Labeling

This product is not a dangerous substance according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. It is also not a hazardous substance or mixture according to EC directives 67/548/EEC or 1999/45/EC.

Animal-Derived Materials / Kosher

No animal-derived materials are used in the manufacture or formulation of this product. Chevron Phillips Chemical Company LP does not certify the resin to be Kosher or in compliance with Kosher requirements.

California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product, as shipped, does not intentionally contain any carcinogens or reproductive toxins presently known by the State of California to cause cancer or reproductive toxicity at a level of exposure subject to the requirements of California Proposition 65.

Consumer Product Safety Improvement Act of 2008 (H.R. 4040)

This product does not contain lead and phthalates. It therefore complies with the relevant sections of the Consumer Product Safety Improvement Act of 2008 (H.R. 4040).

Clean Air Act

This product does not contain any of the following substances regulated by the Clean Air Act:

- Class I or Class II Ozone-Depleting Substances (CAA Section 602)
- Hazardous Air Pollutants (CAA Section 112)
- Accidental Release Prevention Substances (CAA Section 112(r))
- Volatile Organic Chemicals (CAA Section 111)

Heavy metals, RoHS, WEEE, Waste packaging, CONEG

No heavy metals (i.e., antimony, arsenic, barium, cadmium, chromium, lead, mercury, selenium, or silver) are purposely added to this product in quantities that would violate governmental guidelines. The summation of lead, cadmium, mercury, and hexavalent chromium in this product is less than 20 ppm. No polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), and Deca



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Brominated Diphenyl Ethers (Deca BDE) are intentionally added to this product. This product therefore meets the relevant requirements of the following Directives or Regulations:

- 2011/65/EU and 2002/95/EC (RoHS)
- 2002/96/EC and 2012/19/EU (WEEE)
- 2000/53/EC (ELV)
- 94/62/EC, 2005/20/EC, and 2013/2/EU (Packaging Waste Directive)
- USA CONEG Regulation
- California Toxics in Packaging Prevention Act

Toys

This product complies with the requirements of ASTM F963, ISO 8124-3: 2012, EN71-3 and EN71-9, and Directive 2009/48/EC.

Trace levels of styrene monomer may be present in this product. They are unlikely to be released at a level that would approach the limits given in EN 71-9.

Genetically-Modified Organisms (GMO)

This product does not intentionally contain GMOs. However, one substance used in the manufacturing process may be derived from GMOs. It is expected to be completely consumed during the manufacturing process.

Residual Monomer

Typical values for styrene residuals in K-Resin® SBC products are below 10 ppm.

Phthalates

No phthalates, including di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), benzyl butyl phthalate (BBP), diisononyl phthalate (DINP), diisodecyl phthalate (DIDP), and di-n-octyl phthalate (DnOP), are intentionally added to this product. This product therefore meets the requirements of the Consumer Product Safety Improvement Act of 2008.

European Chemicals Agency (ECHA) Substances of Concern

Substances of Very High Concern (SVHC), as listed on the candidate list published by ECHA as of 15 June 2015, are not intentionally added as part of the manufacturing process for K-Resin® SBC products. SVHC are not present above the 0.1% (1000 ppm) reporting threshold defined in Article 33 of Regulation 1907/2006, and any presence of SVHC at any level is purely incidental and unintentional. This product also does not contain any substances on the REACH Annex XVII Restriction Substance list.

Canadian Environmental Protection Act (CEPA) “Challenge” Substances

This product does not contain any high priority chemical substances listed on the “Challenge” Substance Batches as issued by CEPA.

Nanomaterial

This product is not a nanomaterial.



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Absence of Substances and Chemicals

None of the following substances are used as additives or raw materials in the manufacture of this product:

- Acrylamide
- Alkylphenol Ethoxylates, including nonylphenol ethoxylate and octylphenol ethoxylate
- Allergens, including but not limited to those listed in EU Regulation 1169/2011, Directives 2000/13/EC and 2003/89/EC, such as: peanuts, tree nuts, milk, eggs, wheat gluten, soybeans, fish and shellfish
- Aromatic amines
- Asbestos
- Azo compounds
- Biocides
- Bisphenol compounds, including but not limited to: BPA, BPB, BPC, BPE, BPF, BPS, and BPZ
- Brominated or halogenated flame retardants
- Butylated Hydroxyanisole (BHA)
- Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC), hydrofluorocarbons (HFC)
- Chlorinated paraffins
- Colorants or pigments
- Conflict minerals, including Columbite-Tantalite, Cassiterite, Gold, or Wolframite
- Cyanuric acid
- Di(ethylhexyl) adipate (DEHA), diethyl hydroxyl amine (DEHA), or di(ethylhexyl)maleate (DEHM)
- Dimethylfumarate (DMF)
- Dioxins or furans
- Endocrine disruptors
- Epoxy derivatives listed in EU Directives 2002/16/EC and 1895/2005
- Formaldehyde
- Fungicides, preservatives or fumigants
- Materials derived from plants
- Melamine
- Methyl bromide
- Natural rubber latex and dry natural rubber
- Organotin compounds
- Ozone-depleting chemicals
- Perfluorooctanoic acid (PFOA) or perfluorooctane sulfonate (PFOS)
- Pesticides and fungicides
- Photoinitiators, including: benzophenone, hydroxybenzophenone, and 4-methylbenzophenone, and Isopropylthioxanthone (ITX)
- Plasticizers
- Polyaromatic Hydrocarbons (PAHs)
- Polybrominated Diphenyl Ethers (PBDEs) included: decaBDE, octaBDE, and pentaBDE
- Polycarbonates
- Polychlorinated and Polybrominated Biphenyls (PCBs and PBBs)





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- Polychlorinated and Polybrominated Terphenyls (PCTs and PBTs)
- Radioactive Substances
- Recycled materials
- Silicone
- Sulfonamides
- Triclosan (2,4,4'-trichloro-2'-hydroxydiphenylether)
- Vinyl Chloride Monomer (VCM) and Polyvinyl Chloride (PVC) or copolymers

It is the responsibility of the customer to check compliance of the final articles with the relevant legislative and applicable regulatory requirements including their restrictions.

Disclaimer: Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Chevron Phillips Chemical Company LP and K R Copolymer Company Ltd. (KRCC) do not make, and expressly disclaim, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.

Additional information on the health and safety aspects of our product is listed in the MSDS of the product.

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