



[Download our Functionality Overview](#) 

SPECIFIC POLYMERS designs and provides innovative **functional building-blocks, monomers and polymers** for R&D purposes that are **not commercially available anywhere else**. We mainly work on the chemistry of phosphorus, silicon, fluorine, epoxy, maleimides and cyclocarbonates but we also master various kinds of moieties such as amine, alcohol, carboxylic acid, mercaptan, chlorine, bromine, iodine, propargyl or azide groups.

Do not hesitate to contact us if you need support for the development of innovative molecules, formulations or materials. We provide custom services to answer your needs.

Within this functionality overview online leaflet, you will find the numerous functional groups that we develop and master:

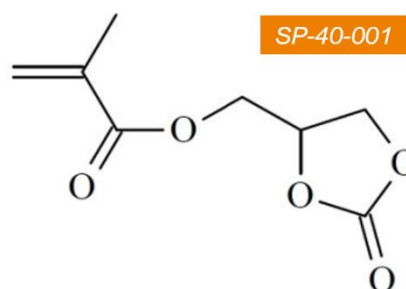
- › Common heterofunctional groups
- › Polymerizable unsaturated bonds
- › Thermoset building-blocks
- › Acid & derivatives - Anchoring groups
- › Salts & ionic functional groups
- › Macromolecular functional groups
- › Protecting groups
- › Hetero-functional linkages
- › Heterocyclic functional groups
- › Leaving groups

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Product of the Month

[Glycerol Carbonate Methacrylate | SP-40-001 | 13818-44-5 >](#)

Once again, our methacrylate cyclocarbonate monomer, **MAGC** (SP-40-001) [13818-44-5], is the product of the month. This R&D product presents a great interest in many application fields and this is the reason why that it remains among the products that you appreciated most in 2016, 2018, 2019 [Best Seller 2016-2018-2019] and this year. This functional monomer has shown outstanding properties in various fields of research such as **isocyanate free polyurethanes**[1] for instance but it can also be used in energy storage as **solid polymer electrolytes** (lithium battery)[2] and for **biomedical applications**[3].



[1] S. Vitalij and al., *Polyfunctional Acrylic Non-isocyanate Hydroxyurethanes as Photocurable Thermosets for 3D Printing*, *Macromolecules* (2019), 52(9), 3288-3297 >

[2] W. Wei and al., *Application of polyethylene separator modified by methyl acrylic polymer in lithium ion battery*, *Gaodeng Xuexiao Huaxue Xuebao* (2019), 40(11), 2332-2339 >

[3] Y. Neha and al., *Versatile functionalization of polymer nanoparticles with carbonate groups via hydroxyurethane linkages*, *Polymer Chemistry* (2019), 10(26), 3571-3584 >

[Access the MAGC >](#)

Publication of the Month

[Cationic UV-curing of epoxidized cardanol derivatives >](#)

Authors: C. Noè, S. Malburet, E. Milani, A. Bouvet-Marchand, A. Graillot, M. Sangermano (2020)

Cardanol, extracted from cashew nutshell liquid, is a very interesting building-block in the field of **biobased polymers, materials and coatings**. We already highlighted our interest in cardanol biobased building-blocks for the synthesis of innovative materials and coatings.

Please find here the latest paper published in the scope of a collaboration with Prof. Marco Sangermano (Polito-Italy). In this paper, SPECIFIC POLYMERS worked on the synthesis of various **photocurable epoxy cardanol-based resins** as bio-renewable alternatives to petroleum-based epoxy resins. Different ranges of cardanol-based products are used to prepare thermoset coatings. Mastering the epoxy content of the cardanol building-blocks allow to **tune the mechanical properties** of corresponding materials.

[Access the publication >](#)

New Equipment at SPECIFIC POLYMERS

Discovery Hybrid Rheometre HR 20 | TA Instrument



We just acquired the next generation of a versatile hybrid rheometre which has two heating modules: a Peltier TA (200°C) and a convection oven (600°C). This interesting equipment is a great tool to measure the **viscosity or the visco-elasticity properties** for different systems because it allows more **precise measurements** and a **higher resolution**, in particular under hard experimental conditions such as small deformations or complex samples.

It will help us designing custom design resin formulations fulfilling our partners' processes specifications (mix viscosity, gel time, etc.). It also provides a better understanding of the **structuration** and the **processability** of our polymers and formulations.

[Contact us >](#)

We are on Vacation!

1-16 August 2020



SPECIFIC POLYMERS is on holiday!

From the 01st August to the 16th included, we will be unavailable - We will respond to your request as soon as possible when we will come back.

We wish you all good vacation and we can't wait to hear from you.

[See you soon for new information in the field of polymers chemistry](#)



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