Seeking Self Reactive Cross-Linking Polymer
For Consumer Goods

Description of Desired Solution:
A SpecialChem client is seeking a self-reactive cross-linking polymer, safe for use in consumer goods application. The solution should be stable in storage and easy to manipulate - applied in a single, simple gesture.

Background:
Cross-linkable reactive polymers are used in many applications. For example, producing long-wearing coatings, encapsulations, adhesives etc. However, they often require multiple and/or complicated methods of application that make it impossible to use for personal care and consumer products.

To simplify this process, the SpecialChem client is looking for polymers containing reactive, self-crosslinking groups. The reactive polymers should be stable in storage and form crosslinked bonds at the time of application. The application process will be a single, simple gesture that requires no complicated equipment or material manipulation and/or handling, with ease-of-use of these polymers being a priority.

The SpecialChem Client has already investigated a number of solutions and is looking to widen the scope of its explorations.

The potential reactive polymers can find use in a wide range of personal care applications and thus potential volumes may be large.

Type of solution sought:
- A material
- A technology
- A partner
Detailed Solution Description:
The cross-linkable reactive polymer should:
- be self-crosslinking – these crosslinks can be covalent bonds, H-bonds, or other
- be solid or liquid form
- be compatible with, but not limited to, water and/or ethanol and/or hydrocarbons and/or acetates and/or silicones
- react with air and/or water and/or natural lights
- react at temperatures from room temperature (maximum reaction time: 1 hour) to 230°C (maximum reaction time: 10 seconds)
- react at pH 4 - 9
- not be derived from animals
- not contain CMR compounds

Possible Routes to Investigate (not limited to):
One or two component systems.

Solutions that are not of interest:
- Monomers
- Any of the following reactive groups as they can't be used in consumer products: acrylates/methacrylates, acrylamides/methacrylamides, isocyanates
- Any of the following already known by the client: alkoxy silanes, quaternary stilbenzonium
- Solutions that require more than one application (gesture)
- Reactions at pH < 4 and pH > 9
- Materials classified as carcinogen, mutagen repro-toxic or sensitizer are not of interest

Timeframe for adopting this solution:
No fixed timeframe. However, ready-to-launch or already industrially developed technology requiring small adaptation would be a plus, even though the SpecialChem Client will need to assess the proposed technology in a suitable formulation in vitro and in vivo. Hence, 18 months is a minimum before incorporating a technology into final product.
Other comments/Important Considerations:
The SpecialChem Client is open to innovative technologies and would consider co-developing technologies.

Types of outcome expected:
- Proven concepts
- Ready to use solutions
- Partners

Type of business considered:
- Licensing
- Contractual partnership
- Joint-venture
- Buying

Company Demographics:
- Industry: Personal Care
- Annual revenue: Billion euro
- Years in Business: 50+ years
- Headquarters Area: Europe

Proposal Submission Guidelines
- Do not unveil any confidential information at this stage.
- You have 2 options for submitting a Proposal:
  1. On-line submission (fill out the on-line Proposal template below and click on ”Submit”)
  2. Download the Proposal Submission Template and send it back to: open-innovation@specialchem.com

- Would you need more information before submitting your Proposal, you can contact François-Eudes Ruchon at: open-innovation@specialchem.com or by phone: +33 172 763 922.

- Next Steps: all proposals will be gathered by SpecialChem and then forwarded to the seeker. The seeker, if interested with your Proposal, will contact you within one month (1) after submission deadline.
Proposal Submission Terms
I agree that all information provided to SpecialChem as part of my submitted Proposal can be shared with the seeker. I agree that all submissions are voluntary and submitted on a NON-CONFIDENTIAL basis on my part. SpecialChem and its affiliates will not share this information with any party other than the seeker.

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