

# SOLVAY ORGANICS FRANCE IN SALIN DE GIRAUD REINVENTS ITSELF IN THE NEW SOLVAY

With 30 years of experience in custom synthesis for the pharmaceutical industry, the site of Solvay in Salin de Giraud, established in 1896 in the south of France, is open to new horizons. Salin de Giraud has become, since the 1980's, one of the important sites of the Belgian Group for the production of its intermediates and active pharmaceutical ingredients. In 2005, the Solvay Group began to outsource the synthesis of mature APIs, and finally, in February 2010 it sold its pharma division to Abbott. In response Salin-de-Giraud has reinvented itself to find new markets. So the "organic chemistry" know-how and capacity of the site is no longer solely focused on the pharmaceutical market, even though its high commitment and reputation still attract new customers in this market. It is also winning new markets including cosmetic, flavors and fragrances and organic electronics.

## Technology development

The entry of Salin-de-Giraud in the world of fine chemistry has been prepared since 2005 with the expansion of the R&D with three PhDs and the creation of an industrialization cell completed by investment in new equipment especially for the pilot and for HSE compliance with new regulation. As part of its technology development, the site started in 2008 to develop the use of enzymatic reactions which led to a first patent and it is also working on process intensification and especially on continuous process as part of a collaboration with leading academics to establish itself at the cutting edge of organic synthesis technology.

## Equipment

In terms of equipment, the site is well equipped with versatile reactors and has a capacity of 46 m<sup>3</sup> with stainless steel and glass lined reactors from 0.5 m<sup>3</sup> to 3.5 m<sup>3</sup>. There is also a cGMP pilot plant with reactors from 160 to 400 liters. To isolate the products, the plant has all the equipment needed including Pharma grade clean room, filter dryers, batch distillation columns, as well as a large thin layer evaporator (up to

700kg/h) to perform distillation on viscous or unstable products.

The plant is also equipped with a waste water treatment facility and large scrubbers connected to the reactors exhausts.

The plant can handle almost all the spectrum of organic reactions and has a strong expertise in sulphur chemistry. It has also the know-how and specific equipments to perform large scale bromination or cyanation.

## Business

In term of business, Salin-de-Giraud works mainly under CDA and answers customer



requests within a week by providing a feasibility study. This step is followed by a price evaluation (1-2 weeks). After the Go/NoGo decision, the chemical development will start in the R&D lab. Project development duration will depend on the chemistry, the chemical information available from the customer and the level of development needed for the first batch. For examples, Salin de Giraud can work on projects for which full development is needed because only the CAS number or the structure is available. On the other hand it makes also direct industrial transfer from plant to plant for mature industrial processes. And all situations in between are also regularly encountered.

## Marketing and sales

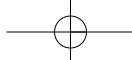
In 2010, the management team decided to put more emphasis on "marketing and sales" under the leadership of Christophe Bardin recently appointed as business development manager. A website [www.solvayorganics.com](http://www.solvayorganics.com) has been put online, while Salin de Giraud now attend major international events, starting with CPhI, the world trade show in the pharmaceutical industry.



## Contact

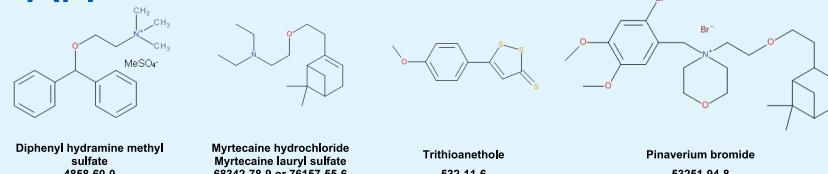
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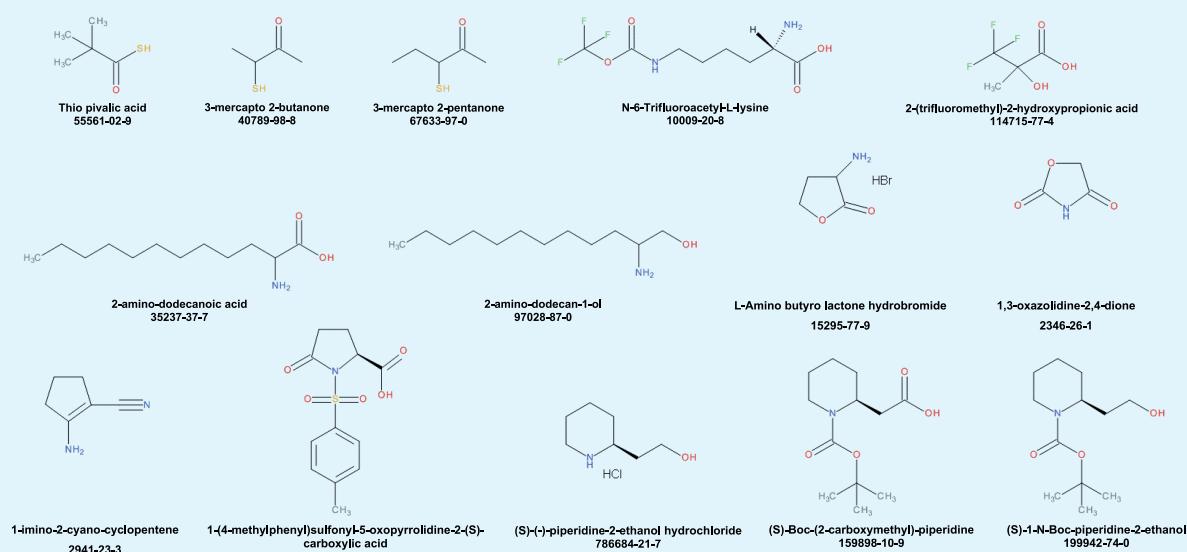


# Your Partner in Organic Chemistry

## API



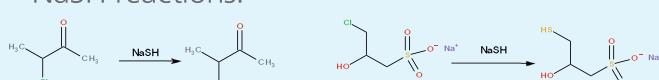
## INTERMEDIATES



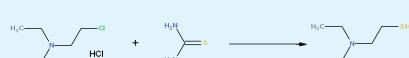
## SULFUR CHEMISTRY

### Thiols formation

NaSH reactions:



Thio urea reactions:



### Thio acetic acid sodium salt reactions:



### Thio ester



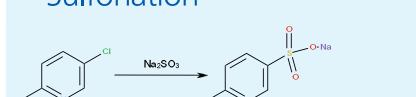
### Thio ether



### Ring formation



### Sulfonation



### Thio phosgene

