



**Matri**lox bioproducts



## Matrica: the biorefinery integrated in the local area

**Matrica** is a joint venture between Versalis (Eni), a company specialized in the manufacture and marketing of petrochemical products, and Novamont, leader in the bioplastics market and in the development of bioproducts. Bringing together the exceptional skills of these two major Italian enterprises has resulted in a biorefinery dedicated to the production of a new range of products made from renewable raw materials with low environmental impact.

### Matrilox is synonymous with:

#### **VEGETABLE ORIGIN**

Matrilox bioproducts come from the use of feedstock from renewable sources which are compatible with the local area. An innovative integration between agriculture and industry enables the Porto Torres biorefinery to systemize and leverage all the elements of the agricultural value-chain, starting from the selection of the raw materials to supply its industrial needs. Besides using vegetable oils of European origin to feed the processes, an agricultural value-chain based on the cardoon (*Cynara car-*

*dunculus L. var. Altilis*) is currently being developed. The cardoon is a local crop whose particular features make it well suited to Matrica's production needs and to the area in which it is found, since it is a dry crop that is cultivated on marginal lands while maintaining local specificities.

#### **INTEGRATED EUROPEAN SUPPLY-CHAIN**

Matrica follows an innovative development model based on the implementation of an integrated agro-industrial supply-chain established in the local area. The Porto Torres biorefinery is

the only one of its kind in Italy and in Europe, which puts into practice a true systemic, circular model, offering new, high value added products from raw materials of European origin.

#### **SUSTAINABLE PRODUCTION PROCESSES**

The Matrica plants use world-first proprietary technology developed by Novamont research, which differs radically from existing technologies since it does not use ozone in the oxidative scission reaction of the vegetable oil and achieves high production capacities.

For more information: [info@matrica.it](mailto:info@matrica.it)

## Matrilox bioproducts: properties and sectors of use

**Matrilox** is the trademark which identifies the innovative family of bioproducts produced by Matrica for many different market segments: bioplastics, biolubricants, personal care products, plant protection products and additives for the rubber and plastics industry. Matrilox products, which are biodegradable and non-toxic, provide sustainable solutions with low environmental impact, combining renewability and high performance at the same time.



### INTERMEDIATES (MATRILOX-I)

MATRILOX-IA001M	Azelaic acid
MATRILOX-IP001M	Pelargonic acid
MATRILOX-IG001M	Glycerine
MATRILOX-IL001M	C5-C9 light acids



### PLASTICIZERS (MATRILOX-P)

MATRILOX-PD202P	Polymeric plasticizer for PVC (special applications: cables, flooring, etc.)
MATRILOX-PD204P	Polymeric plasticizer for polar elastomers such as NBR, CR, etc., or PVC (low temperature applications)
MATRILOX-PF801R	Process oil for various applications (low viscosity)
MATRILOX-PF801D	Extender oil for elastomers compounding and process oil for various applications (medium viscosity)



### LUBRICANTS (MATRILOX-L)

MATRILOX-LA001M	Azelaic acid
MATRILOX-LP101M	TMP-Pelargonate
MATRILOX-LL101M	TMP-C5-C9
MATRILOX-LP201M	NPG-Pelargonate
MATRILOX-LP301M	PE-Pelargonate
MATRILOX-LL301M	PE-C5-C9
MATRILOX-LL401M	diTMP-C5-C9
MATRILOX-LL501M	diPE-C5-C9



### COSMETICS (MATRILOX-C)

MATRILOX-CA001M	Azelaic acid
MATRILOX-CG001M	Glycerine
MATRILOX-CP601M	GLY- Pelargonate
MATRILOX-CP301M	PE- High-purity pelargonate
MATRILOX-CP201M	NPG- High-purity pelargonate
MATRILOX-CP901M	DiGLY-Pelargonate

#### Notes

Available on request

Under development



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