

STATEMENT ON PHTHALATES

According to our actual knowledge and information from our raw material suppliers, we can confirm that in products **of the Sirmax Group** listed in Table 1

➤ **Phthalates¹ or phthalates-based compounds** including:

Bis (2-Ethylhexyl) Phthalate (**DEHP**, cas#117-81-7)
Dibutyl Phthalate (**DBP**, cas#84-74-2)
Benzyl butyl phthalate (**BBP**, cas#85-68-7)
Diisononyl phthalate (**DINP**, cas# 28553-12-0 – 68515-48-0)
Diisononyl phthalate (**DIDP**, cas#26761-40-0 – 68515-49-1)
Diisobutyl phthalate (**DIBP**, cas#84-69-5)
Di-n-octyl phthalate (**DNOP**, cas# 117-84-0)
Etc.

are not intentionally added.

However, our products are not tested to check any possible presence of the substance(s) mentioned above since this testing process is not a standard procedure within Sirmax SpA, therefore the presence of trace amounts in the product(s) coming from raw material impurities, from the process or as adventitious contaminant cannot be excluded.

¹ As per Reg. (EC) No 1907/2006 "Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)", Directive 2011/65/EU "Restriction of Hazardous Substances, RoHS" and their subsequent amendments.

Table 1: list of products covered by this declaration

PP	ISOFIL ^{®*} , ISOPLLEN ^{®*} , ISOGLASS ^{®*} , ISOFLEX [®] , DAFNELEN [®] , DAFNEGLASS [®]
ABS	ISOTER ^{®*} , DAFNELAC [®]
PA	ISONYL ^{®*} , DAFNEMID [®] , AXONYL [®]
PPO	ISORYL [®]
PE	ISOTENE
PET and PBT	ISODUR [®] , DAFNELOY [®]
POM	ISOFORM ^{®*} , DAFNELAN [®]
PC/ABS	ISOBLEND ^{®*} , DAFNEBLEND [®]
PC/ASA	ISOBLEND AS [®]
PC	ISOCLEAR ^{®*} , DAFNELOY [®]
PS	ISOSTYR [®] , DAFNESTIL [®]
MASTERBATCHES	MASTER, EUROMASTER, MICROFILLER [®] , MICROMASTER [®] , MICROADD [®]
TPE	XELTER [®] S, XELTER [®] T, XELTER [®] V, XELTER [®] O, XELTER [®] TECH, XELTER [®] BIO
COMPOSTABLE	BIOCOMP [®]

*** with exclusion of Industrial grades "I", produced with pre-consumer recycled polymer.
For further information please contact your local Sirmax Group contact.**

IMPORTANT NOTE:

The present declaration does not apply to materials containing post-consumer recycled plastic like any "GREEN" SIRMAX[®] grade, SERTENE[®] PP and SERTENE[®] PE grades. For further information please contact your local Sirmax Groupcontact.

The situation should be better explained for polypropylene compounds (ISOFIL – ISOPLLEN – ISOGLASS – ISOFLEX – DAFNELEN – DAFNEGLASS - MASTER e MB based on PP). Sirmax is an independent compounder, does not polymerize propylene. PP is supplied to Sirmax by the main petrochemical companies. Sirmax is defined by REACH as a "downstream user" with limited responsibilities for authorization and registration. Actually Sirmax is using polypropylene based on the 4th generation Ziegler-Natta-catalyst, whose pre-catalyst does contain an internal donor, very often a phthalate like Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP) or Bis(2-ethylhexyl) phthalate (DEHP). During polymerization the catalyst is consumed or rapidly decomposed in substances which are partially removed and partially remain in PP as catalytic residues. According information from suppliers and producers, phthalates traces in PP are below 10 ppm (mg/kg), and usually below the threshold of the analytical method. This concentration is lowered when Sirmax adds the filler to the polypropylene, down to maximum content of 5-10 ppm phthalate. Annex XIV of REACH, the Authorisation List, comprises Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP) and Bis(2-ethylhexyl) phthalate (DEHP) which must not be

used anymore in concentrations above 0.1 wt% (1000 mg/kg) without an authorisation after 21st Feb 2015.

- The maximum residual traces of phthalates in polypropylenes are much below the limits defined by REACH (0,1 wt%), thus no commercial polypropylene is subject to any restriction or ban in that respect.
- As part of the pro-catalyst mixture the DBP, DIBP or EHP are isolated intermediates which are exempted from Authorisation under REACH, so there will be the possibility to use them without restrictions in the next years.
- The sunset date for these phthalates in 2015 does not prohibit the import or use of any products containing them in concentrations below 0.1 wt%. This is the case of our polypropylene compounds
- A 5th generation phthalate-free Ziegler-Natta-catalyst is existing, but it will not quickly cover or replace the actual European PP production. For this reason a re-setting to no-phthalate containing PP is planned in Sirmax, but without urgency. Such materials were not already proposed to customers. For the mentioned reasons, we expect that there will be no limitations or restrictions to the actually used phthalate-based-catalyst polypropylenes, and that the ban of phthalates will not affect this market. This argument will probably speed up the switch between the 4th and 5th generation catalysts, but some years will be necessary, so that there will be the time to test these new materials.

Disclaimer:

This declaration applies only to the composition of granules and may not be extended to end products obtained by any modification of the composition, any processing conditions which could lead to deteriorated material or improper use of granules. This information and our technical advice - whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release the user from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses.

Cittadella, 12 May 2022

Sirmax Group
Regulatory Affairs Office