



Vinyloop Communication

Q&A about REACH and Additives content

1. Are Vinyloop products in conformity with REACH regulation?

Yes. Since end of 2008, Vinyloop products have new Material Safety Data Sheet (MSDS) taking into account the modifications required by the REACH regulation concerning recycled plastics, as asked by the EU Commission DG Environment.

2. Why recycled materials have a different status?

The origin of recycled plastics is difficult to know. Nevertheless some generic compositions can be defined to cover almost all known cases.

3. During the processing of Recycled PVC are some toxic dust released in the air?

Some dust can occur during R-PVC pellet processing, as with any plastic processing. Our MSDS recommends to wear an appropriate protection equipment against exposure to dust in general, including a dust mask.

Anyway, polymers in general and Vinyloop R-PVC in particular are not classified as toxic materials.

4. Could you advise me about how to use Vinyloop R-PVC to produce my finished goods?

Yes. This is the job of our Customer Technical Service people to provide you with services and technical advice.

5. Does Vinyloop R-PVC compounds contain lead (Pb)?

Yes. Lead derivatives like lead stearates are used as very efficient stabilisers for PVC. Most of the end consumer plasticized PVC wastes therefore contain lead stabilisers. Nevertheless, these lead stabilisers are encapsulated/embedded in the polymer matrix, and do not substantially leach out of the finished articles during their lifetime. It must be underlined that no stabilisers are added to the R-PVC in the Vinyloop process.



During the thermoplastic processing of Vinyloop R-PVC pellets, some dust might be produced. But as explained, no free lead particles will be released since the stabilisers are embedded in the polymer matrix.

The MSDS of Vinyloop product recommends that processing workers carry a dust mask to protect themselves like for any type of dust.

6. Why recycling lead PVC compounds?

Recycling PVC compounds containing lead avoids spreading out lead derivatives in the environment. We think this is a good thing as a good and sound environmental solution. As a matter of fact, the "sequestration" of lead compounds within the PVC matrix of some applications does not pose any particular risk and avoids their disposal in landfills or their incineration.

7. Could the presence of lead stabilisers be avoided in R-PVC?

This is possible indeed. Technologies to separate the stabilizers are improving and help to reach values below 0.1% of lead content in the R-PVC, but at a very high cost. Furthermore R-PVC stabilisation would be much less effective.

8. Does Vinyloop R-PVC compounds contain Phthalates?

Yes. Phthalate derivatives like DEHP are used as very efficient plasticisers for PVC. Most of the end consumer plasticized PVC wastes therefore contain phthalate plasticisers used to make PVC soft and flexible. Without plasticisers, PVC products such as cables or blood bags would not exist today. Although Phthalates are commonly referred to as if they were a single substance, this is misleading because there are a number of different types of Phthalates, each with very different characteristics.

The most widely used Phthalates usually present in the Vinyloop compounds are DEHP, DINP and DIDP.

9. Are some Phthalates substances of concern?

The main phthalates used as plasticisers were thoroughly evaluated for their potential impact on human health and the environment. The now most widely used Phthalates, DINP and DIDP, do not pose any particular risk according to the recent results of an EU risk assessment.



In the case of DEHP, some health effects (endocrine disruption or effects on reproduction) were observed in animal tests studies at many times the level of exposure that would normally be experienced by humans. Such effects were never observed in human despite more than 50 years of use in many applications. None of the Phthalates are neither persistent nor bioaccumulative and none of the Phthalates are classified as carcinogens to humans.

These last years, the use of DEHP has deeply decreased in favour of DINP and DIDP. This tendency is also observed with the recycled products with a certain delay depending on the life time of the goods.

Globally, the recent EU risk assessments of the main Phthalates show little evidence to suggest that substitution is necessary only for some Phthalates (DEHP in particular) in some applications like baby toys. Any other substitution of the tried, tested and well-understood Phthalates would be acceptable and responsible only with at least equally safe and well-studied alternative substances.

For further information on plasticisers and Phthalates please go to:

- The Plasticisers Information Centre: www.plasticisers.org
- The Phthalates Information Centre: www.phthalates.com
- The DINP Information Centre: www.dinp-facts.com
- The DEHP Information Centre: www.dehp-facts.com
- GreenFacts: <http://www.greenfacts.org/en/digests/phthalates.htm> : a summary of the EU risk assessments of DINP, DIDP and DBP for non specialist.

10. Do you modify composition of the PVC material during the Vinyloop process?

Usually not. Only some Vinyloop grades are modified during the process by adding some amount of plasticiser (DINP) to fine tune the Shore A hardness, to reach the technical requirement of the data sheet. It must be underlined that no stabilisers are added to the R-PVC in the Vinyloop process



11. Does Vinyloop R-PVC compounds contain Antimony?

Usually yes. Antimony derivatives are used as fire retardant in soft PVC compounds. Most of the end consumer soft PVC wastes therefore contain Antimony compounds. Nevertheless, these fire retardants are encapsulated/embedded in the polymer matrix, and do not substantially leach out of the finished articles during their lifetime. During the thermoplastic processing of Vinyloop R-PVC pellets, some dust might be produced. But as explained, no free Antimony particles will be released since the fire retardant is embedded in the polymer matrix.

The MSDS of Vinyloop product recommends that processing workers carry a dust mask to protect themselves like for any type of dust.

12. Does Vinyloop R-PVC compounds contain Cadmium?

Cadmium derivatives have been used in the past as PVC stabilisers or pigments (yellow/orange), and are now forbidden. Cadmium derivatives are usually not present in Vinyloop R-PVC products, and if so in amounts involving no particular safety precautions. During the thermoplastic processing of Vinyloop R-PVC pellets, some dust might be produced, but if present, no free Cadmium particles will be released since the stabiliser is embedded in the polymer matrix.

The MSDS of Vinyloop product recommends that processing workers carry a dust mask to protect themselves like for any type of dust.

For more information: <http://www.cadmium.org/>

13. Does Vinyloop R-PVC compounds contain Asbestos?

Even if Vinyloop R-PVC products are made of PVC originating from mixed wastes: cable waste, demolition waste, etc the waste used in the Vinyloop process must not contain any traces of Asbestos. Vinyloop Ferrara has indeed strict requirements regarding the presence of some hazardous materials such as Asbestos.

