

FACT SHEET ON LEAD AND PVC ISSUES



PVC (Polyvinyl chloride) has been used in all forms of consumers' products for decades. It is extremely versatile and has been shown to be safe for most uses. (For example, PVC is widely used in medical devices).

Trees/Lights:

- Lead has been used in electrical wire insulation for many years. It is necessary to provide resistance to heat generated in electrical current-carrying wire. Many common household electrical appliances such as hair dryers, toasters, and extension cords have traditionally used lead-based plastic wiring.

Tree & Light Category

| PRODUCT | LEAD-FREE | LOW-LEAD | CONTAINS LEAD | CONTAINS PHTHALATES |
|---|-----------|----------|---------------|---------------------|
| PVC Tips | ● | | | NO |
| PE Tips | ● | | | NO |
| Powder Coat (paint) used for stand, tree pole, branches, etc. | ● | | | NO |
| Pigment used in PVC production | ● | | | NO |
| Paint used on light bulbs | ● | | | NO |
| Pine Cone, dewdrops | ● | | | NO |
| Light bulb, LED bulb, plastic socket | ● | | | NO |
| Tree Flocking | | ● | | NO |
| Tinsel | | ● | | NO |
| 'Low Lead' Light Set* | | ● | | NO |
| Standard Light Set# | | | ● | NO |

* - 'low lead' = < 300ppm (300 mg/kg)

- Standard light set contains lead > 300 ppm but is still in compliance with State and Federal Law for sale

- The State of California, under Proposition 65 requires a warning label on any product with an 'exposed' lead content of more than 300 parts per million (> 300 mg/kg). 'Exposed' refers to parts that are exposed to the user and can be touched. Something sealed inside a component does not apply.]
- The PVC insulation used for 'standard' electrical wire used in seasonal lighting and other common household appliances typically contains lead which requires the Prop 65 warning to be shown.
- GP Ltd./PolyGroup has developed an exclusive 'low lead' insulation formula that does not require a California Prop 65 Warning (contains less than the 300 ppm of surface lead)
- All GP Ltd./PolyGroup light-sets (both standard and low-lead) remain fully UL-588 compliant.
- Due to higher raw material and production costs in producing the 'low lead' material, it currently results in a 3%-5% price premium over standard light sets.
- PVC used for tree tips and PE tips are **lead-free**.
- Other tree and light components, such as bulbs, LEDs, filaments, plastic socket, tree-trunks, stands, paint), pine cones, dewdrops, and holly are **lead-free**.
- GP Ltd./PolyGroup has their own lead testing machines which will enable testing and verification of incoming raw materials and also finished products.
- The PVC film used in Christmas trees, wreaths, and garlands **does not contain phthalates**.
- The PVC and PE used in trees is inherently **flame retardant**.

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Pools/Inflatables:

- Pools are made from PVC. Ring & Frame Pools use a laminated material with a polyester mesh sandwiched between two layers of PVC.
- Phthalates' refer to a group of chemicals found in PVC plasticizers. Plasticizers are an additive mixed with PVC to makes the material soft and flexible. Soft PVC items such as children toys, imitation leather goods, shower curtains, and other common products all contain plasticizers. In inflatable goods, plasticizer makes up 30-35% by weight of the finished product.
- There are six common type of phthalate plasticizers, known as 6P. They are: **(1)DEHP (aka DOP), (2)DBP, (3)BBP, (4)DINP, (5)DNOP, (6)DIDP.**

Pool & Inflatable Category

| PRODUCT | LEAD-FREE | PHthalATES | TYPE |
|--|-----------|--------------|------|
| Ring / Frame Pools | ● | YES, 3P-free | DINP |
| Inflatable Pools and Toys | ● | YES, 3P-free | DINP |
| Non-Phthalate (6P-free) inflatable pools & toys | ● | NO | |
| Injection molded handles, nozzles, other accessories | ● | YES, 3P-free | DINP |
| Swim Gear | ● | YES, 3P-free | DINP |
| Electrical Wire Insulation | Low Lead | NO | |
| Powder Coat (paint) used on metal frames and ladders | ● | N/A | |
| Inks/Pigment used in PVC production and printing | ● | N/A | |
| Polyester Mesh used in ring and frame pool liners | ● | N/A | |
| Packaging | ● | YES* | |

3P-free = does not contain any of the three banned phthalates plasticizers DEHP (DOP), DBP, BBP, but does contain DINP, DNOP, and / or DIDP
6P-free = does not contain any of the six restricted phthalate plasticizers DEHP (DOP), DBP, BBP, DINP, DNOP, DIDP

*Some Packaging components contain PVC which may contain phthalates.

- **Europe** has imposed restrictions on the use of phthalate plasticizers in toys.
 - Toys are defined as products intended for use in play by children less than 14 years of age. This includes inflatable toys such as animal ride-ons, beach balls, and small pools less than 15 inches (40cm) in depth.
 - Large pools (ring pools, frame pools, inflatable family pools), pool lounges, and airbeds are **not considered toys**.
- In toy products only, the following three plasticizers have been banned: **(1) DEHP (aka DOP), (2) DBP, (3) BBP.**
- The following three plasticizers **are allowed**, but only if the toy cannot be placed in the mouth of the child: **(4) DINP, (5) DNOP, (6) DIDP.** Products which contain one of these three substances (but not the first three) are referred to as **'3P'-free** (three phthalates free).
- If the toy can be placed in the child's mouth, then all six phthalates are banned. Products that do not contain any of the six phthalate compounds are referred to as **'6P'-free** (six phthalates free).
- **For non-toy products, there are no restrictions on the use of phthalates.**
- In the **United States**, only the state of **California** has imposed any restrictions on the use phthalate plasticizers in toys. All toys that can be placed in the mouth for children **under 3 years old** must be **"6P"-free**. Toys for ages 3 years old and above, **"3P"-free** is permitted.
- Non-phthalate containing plasticizers cost significantly more, their availability is limited, and even their safety has not been fully examined. Generally speaking, products using non-phthalate plasticizers are 20% more in cost.
- Our inflatable pool and toy products meet European CE standards (EN-71) which address other hazardous elements such as cadmium, mercury, arsenic, and others.