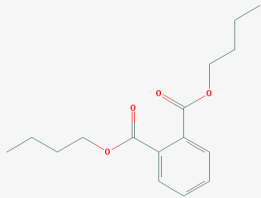


THE "TOXIC TRIO"

DEADLY CHEMICALS IN PERSONAL CARE PRODUCTS

WHAT IS THE "TOXIC TRIO"?

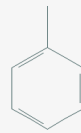
Used in many personal care products and may expose manufacturers and suppliers to latent liabilities



DIBUTYL PHTHALATE (DBP)

- Used in perfumes, body lotions and many personal care products
- May cause developmental injury, endocrine (glands and hormones) disruption and reproductive injuries

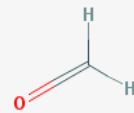
\$100bn+
potential value of litigation-related losses in the US over multiple years (approx. 1% probability)



TOLUENE

- Used in fragrances, hand and nail care products and many personal care products
- May cause developmental injury, ear and eye injuries, nervous system disruption and reproductive injuries

\$16.6bn
value of growing toluene market in 2016



FORMALDEHYDE

- Used in hair straighteners for home and salon use, as well as in nail products
- May cause blood and lung cancers, cognitive disorders, ear, nose and throat tumors, nervous system disruption and reproductive injuries

58%
of nail salon workers in Salt Lake City (US) exposed to excessive amounts in 2013

POSSIBLE RISK SCENARIOS

The global skin care market is predicted to grow by **40%** to **\$180bn** by **2024**, increasing potential liability exposures:

1 2 3 4

Known and intended inclusion of one or more "toxic trio" chemicals in personal care products

- Juries may not award damages, but the cost of defending against the allegations accumulates
- General liability insurance may respond to claims related to bodily injury (hospital treatment, doctors, medicine, pain and suffering, loss of income, etc.)

Unknown existence of one or more of the "toxic trio" where no claim was made of presence/absence

- Juries may apportion responsibility to manufacturer and/or its upstream suppliers. Both manufacturer and its suppliers must pay defense costs
- General liability insurance may respond to claims related to bodily injury (hospital treatment, doctors, medicine, pain and suffering, loss of income, etc.)
- Costs might be payable by the manufacturer, the supplier or may be split between both

Unknown existence of one or more of the "toxic trio" where claims represented the products as "three-free" or the equivalent. Mislabeling can be mitigated by implementing a testing regime

- Juries may award damages and may apportion responsibility to the manufacturer and/or the suppliers. In any case, both must pay significant defense costs
- General liability insurance may respond to claims related to bodily injury (hospital treatment, doctors, medicine, pain and suffering, loss of income, etc.)
- Costs might be payable by the manufacturer, the supplier or may be split between both

Product recalls mandated by regulatory agencies due to findings indicating that a product is a hazard

- General liability insurance may cover these costs
- May be covered under separate product recall or contaminated products insurance policies or as part of the general liability insurance policies of both the manufacturer and its suppliers