

CRITICAL CHEMISTRIES UNDER TSCA REVIEW

Automobile Manufacturing and Maintenance

Gaskets, Hoses and Tires

1, 3-Butadiene, NBR, SBR

1, 3-Butadiene is a chemical "building block" critical in the manufacture of elastomers like Nitrile-butadiene rubber (NBR) and Styrene-butadiene rubber (SBR). The properties of these polymers enhance the wear, traction, rolling resistance and performance of tires.

Plasticizer and Flame Retardant in Upholstery, Electronics and Electric Vehicle Batteries

Triphenyl phosphate (TPP)

TPP is used as a plasticizer and flame retardant in the manufacture of automobile upholstery and electronics.

TPP is also used as a flame retardant in lithium ion batteries for hybrid and electric cars.

Refrigerants

Carbon tetrachloride (CTC)

CTC is a key raw material used in next-generation low-global warming potential (LGWP) refrigerants for air conditioning systems in over 95% of automobiles sold in the United States.

Passenger Comfort and Safety Systems

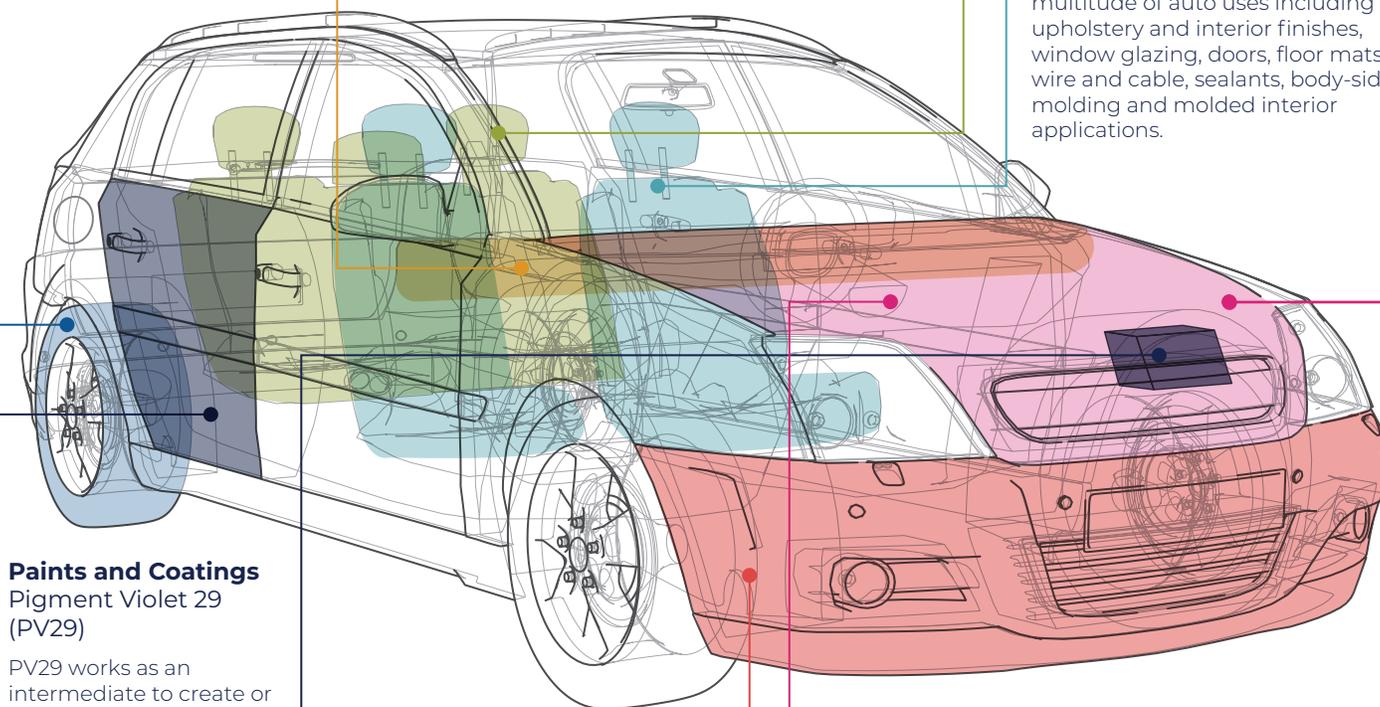
Octamethylcyclotetrasiloxane (D4)

D4 is a critical building block used to make a wide variety of silicone products that provide cushioning, protective shock absorption, and thermal / chemical resistant qualities to help increase passenger safety and vehicle longevity. This includes lifesaving airbags, engine gaskets, headlamps, ignition cables, radiator seals and hoses, shock absorbers, and ventilation flaps.

Upholstery, Wire & Cable, Sealants and Interior Trim

Diisononyl phthalate (DINP) and diisodecyl phthalate (DIDP)

DINP and DIDP are durable, provide UV resistance, prevent corrosion and effectively withstand extreme temperatures. DINP and DIDP have a multitude of auto uses including upholstery and interior finishes, window glazing, doors, floor mats, wire and cable, sealants, body-side molding and molded interior applications.



Paints and Coatings

Pigment Violet 29 (PV29)

PV29 works as an intermediate to create or adjust colors in automobile paints and coatings, and interior and exterior plastics.

Batteries and Energy Storage

N-Methylpyrrolidone (NMP)

NMP is an essential processing aid applied to the coating of electrodes to fabricate lithium ion batteries for cars and energy storage.

Flame Retardant for Safety Systems and Electronics

Tetrabromobisphenol A (TBBPA)

TBBPA is a reactive flame retardant in epoxy resins for printed circuit boards used in a wide range of safety systems and electronic components including battery management systems, vehicle sensors, car lights, vehicle display modules, gearboxes, roof switches, Anti-lock Braking System (ABS) pressure sensors, door handles, vehicle seating sensors and adaptive cruise control.

Brakes

Perchloroethylene (Perc)

Perc is used for degreasing metal automotive parts, brakes being the most notable.

Headlights, Bumpers, Engine and Gaskets

Methylene chloride

Methylene chloride is used as a solvent in the manufacturing process to create polycarbonates (PC). Polycarbonates are used to produce critical automotive safety components such as head lamps and automotive bumpers. Automotive specialists use a vapor methylene chloride in the degreasing process to remove oils and grease from car transistor parts, diesel motors, gasket removal and for prepping metal parts for a new gasket.

Safety Systems and Underhood Components

Formaldehyde

Formaldehyde has a myriad of uses, including interior and exterior composites, seatbelts, foam cushioning and seating systems, door lock systems, mirrors, adhesives, wiper systems, wheel structure and brake pads, electrical systems, metal castings, speaker grilles and exterior trim.