

Coventry 12809 Multi-Phase Carrier Solvent

Product # 12809

Product Description

Coventry™ 12809 Multi-Phase Carrier Solvent does not have a flash point (Tag closed cup ASTM D56), so offers greater safety compared to other commonly used carrier solvents. It is a saturated mixture of n-octane and perfluorocarbon (PFC). The n-octane provides outstanding silicone tube swelling ability and outstanding silicone fluid deposition. The perfluorocarbon provides an inert vapor blanket above the liquid mixture. This heavy PFC vapor phase blanket suppresses the flammability of the n-octane. Coventry™ 12809 Multi-Phase Carrier Solvent is a dynamic system. As the perfluorocarbon evaporates during use, the PFC moves from the bottom PFC reservoir phase into the n-octane solution middle phase and then replenishes the top vapor phase blanket.

- No flash point for greater safety
- No ozone depleting chemicals
- Low toxicity
- Excellent Deposition and Carrier Solvent
 - Moisture and oxygen free – prevents premature curing of lubricious silicone coatings, lubricants and depositions
 - High solubility of silicone and other lubricants.
- Superior swelling solvent
 - Swelling of platinum and peroxide cured silicone tube and fittings
 - Fast acting / high throughput
 - Superior work times for superior
- Maximum performance and safety
- Replaces highly volatile and flammable n-heptane and siloxane solvents (HMDS)

Typical Applications

- Swelling agent for silicone tubing, urethane tubing and other elastomers
- Carrier fluid for depositing silicone lubricants



Typical Product Data and Physical Properties

Boiling Point	258°F/125°C (top liquid layer)
Solubility in Water	<0.01%
Specific Gravity	0.76 (top layer)
Vapor Pressure @77°F	13.6 mm Hg
Vapor Density (air=1)	3.9 (n-octane)
Appearance	Clear, colorless liquid
Odor	Hydrocarbon
Surface Tension (dynes/cm @ 68°F)	21.6
Flash Point (TCC)	
12809 mixture	none
n-Octane Top Liquid Layer	56°F/13°C
PFC Bottom Liquid Layer	none
Evaporation Rate (butyl acetate =1)	2.0 (n-octane)
VOC* Content	60%
SCAQMD	483 g/L
Federal	60%
Shelflife	2 years from DOM unopened
RoHS Compliant	Yes

*Volatile Organic Compound (VOC) information is calculated on a weight basis using the VOC definition of California Air Resources Board (CARB) Consumer Product Regulations, South Coast Air Quality Management District (SCAQMD) Rule 102 and the Federal definition published in 40 CFR 51.100(s).

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Typical Product Data (cont.)

Moisture Content (ASTM D-3401)	<50 ppm by weight
NVR (ASTM-D-2109)	<50 ppm by weight
Aromatic Content (% wt)	0.10 max.

Compatibility

Coventry™ 12809 Multi-Phase Carrier Solvent is compatible with most metals and plastics. As with any solvent, compatibility with substrate should be determined on a non-critical area prior to use. Long term compatibility with materials used during manufacturing must be evaluated as there is potential for plasticizers to be leached from plastic funnels, syringes, housings, bottles, etc.

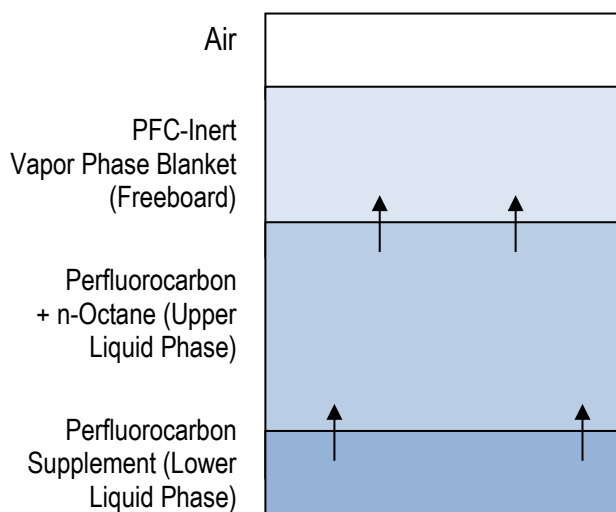
Material	Compatibility
All Metals	Satisfactory
Polyethylene	Satisfactory
Polypropylene	Fair
Polystyrene	Satisfactory
Polycarbonate	Satisfactory
Polyurethane	Fair
Nylon	Satisfactory
Epoxy	Satisfactory
Viton	Satisfactory
Neoprene	Fair
Natural Rubber	Unsatisfactory
Fluorinated	Satisfactory
Tygon™	Satisfactory

Usage Instructions

For industrial use only. Read SDS carefully prior to use.

Keep away from ignition sources. Use only in a well-ventilated area.

Set-Up: Allow the product to achieve room temperature and shake well before opening and transferring 12809 to a smaller container. Transfer quickly before separation into two liquid phases occurs. When Coventry™ 12809 Multi-Phase Carrier Solvent is transferred to other containers for use during production, each container must possess two liquid phases, the PFC+n-octane layer on top and the additional layer of perfluorocarbon on the bottom. To insure safety, the bottom layer of perfluorocarbon must be monitored and maintained. Production containers must have a freeboard zone above the saturated liquid to hold the inert PFC vapor phase blanket. Coventry™ 12809 Multi-Phase Carrier Solvent should be used in a well-ventilated area.



To Use: The perfluorocarbon + n-octane phase provides the active portion for solvency.

For coating or deposition operations, the solution should be gently agitated during coating to insure homogeneity in the solution in order to provide a uniform coating. The parts to be coated are then dipped into the PFC + n-octane + coating solution, removed and then dried or cured.

For silicone swelling applications, submerge the portion of the tube or part to be swelled into the PFC+n-octane solution phase solvent until the desired swelling is obtained. Remove and assemble. The tube or fitting will return to its original dimensions as the n-octane evaporates and the connection will be complete.

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Restrictions for Handling and Storage

Although 12809 shows no closed cup flash point up to its boiling point, the primary component, n-octane is flammable. Therefore, Coventry™ 12809 should be handled and shipped as a flammable solvent.

This product is a processing solvent and is not intended for use as a cleaning solvent. Application by sponge or cloth will lead to rapid loss of PFCs and formation of flammable vapors. Store in sealed container at room temperature to avoid the loss of PFCs. Container should be shaken prior to use. Do not store above 120°F/49°C or incinerate. Should spills occur or containers break, material should be handled as flammable.

Availability

12809 1 gal. / 3.8 L liquid

Technical and Application Assistance

Chemtronics provides a technical hotline to answer your technical and application related questions.

The toll free number is: 1-800-TECH-401.

Note:

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. CHEMTRONICS does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.