COVENTRY™

12809 Multi-Phase Carrier Solvent

Coventry™ 12809 Multi-Phase Carrier Solvent is a saturated mixture of n-octane and perfluorocarbon (PFC). The n-octane provides solvency while the PFC provides an inert perfluorocarbon vapor blanket above the liquid mixture. These vapors act to impede the flammability of the n-octane. As the perfluorocarbon evaporates during use, the supplemental PFC moves into the saturated solution. 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.

Coventry™ 12809 is used to replace CFCs, HCFCs, and flammable solvents as a carrier solvent for lubricants and coatings. It is especially effective as a silicone solvent and as a swelling agent for silicone fabricated parts.

- **High solubility of silicone and other lubricants.**
- **No Ozone Depleting Chemicals**
- **Low Toxicity**
- **Fast Drying**
- **Very Low Non-Volatile Residue**
- **Maximum Performance and Safety**

For more information contact our Technical Hotline at **770.424.4888 ext. 137** or **AskChemtronics@chemtronics.com.** **Call 800-645-5244 ext. 154** to schedule an in-house evaluation with a local sales representative.

Chemtronics®

Nothing Performs Like Chemtronics

www.chemtronics.com

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COVENTRY™ 12809 Multi-Phase Carrier Solvent

SOLUBILITY

Silicone	Max. Solubility (Volume %)
Dow Corning 360	20
Dow Corning MDX4-4759	20
ShinEtsu X-22-8100A	20
Toshiba THC 9300	6
Wacker Chemie AK 350	17
Dow Corning Anti Foam	7
Dyna-Glide #1 Silicone Wax	6

TYPICAL PHYSICAL PROPERTIES

Boiling Point	258ºF/125ºC (top-layer)
Specific Gravity (water = 1)	0.76 (top-layer)
Vapor Density (air=1)	>1
Vapor Pressure	232 mm Hg @20ºC
Appearance	Clear, Colorless, 2-Phase liquid
Flash Point (TCC)	
12809	none
Perfluorocarbons	none
n-Octane	56ºF / 13ºC
Non-Volatile Residue	<10 ug/ml

COMPATIBILITY

Although the solvent contains PFCs, the material compatibility of n-octane can be used as a guideline. Additionally, PFCs may cause swelling in some fluorinated polymers. Long term compatibility could be an issue during manufacturing as there is potential for plasticizers to be leached from plastic funnels, syringes, 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

DIRECTIONS FOR USE

Allow the product to achieve room temperature and shake well before using. When Coventry™ 12809 is transferred to other containers for use during production, each container must possess the additional layer of perfluorocarbon. To insure safety, the bottom layer of perfluorocarbon must always be monitored and maintained. Production containers must have a freeboard zone above the saturated liquid. If silicone is used, the solution should be agitated during coating to insure homogeneity in the solution in order to provide a uniform coating. Coventry™ 12809 should be used in a well-ventilated area.

The perfluorocarbon + n-octane phase provides the active portion for solvency. The PFC vapors are heavy and form an inert vapor blanket over the solution. These vapors impede the flammability of the n-octane. The PFC vapors require a volume above the solution in which to reside. All production containers must have a freeboard zone above the saturated liquid. PFC is more volatile than n-octane and is lost preferentially due to evaporation. Therefore, a supplemental layer of PFC is included in Coventry™ 12809. As the PFC evaporates into the inert vapor blanket, the supplemental perfluorocarbon moves into the saturated solution, rendering maximum safety as a dynamic system.

TECHNICAL & APPLICATION ASSISTANCE

Chemtronics provides a technical service hotline to answer you technical and application related questions. The toll free number is:
1-800-TECH-401 (1-800-832-4401).

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