

Technical Data Sheet

Introducing Ecolink 4005!

Ecolink 4005 is a effective blend of nonflammable hydrofluorinated ethers (HFEs) CAS No: 406-58-6, and trans-1,2-dichloroethylene (t-DCE) CAS No: 156-60-5 and is HFC-free. Developed for heavy duty degreasing applications.

4005 is a ready made and capable substitute for n-propyl bromide (nPB), TCE and other vapor degreasing solvents.

4005 possesses advantageous physical properties such as high density, low surface tension and low viscosity for premier performance. Ecolink 4005 is best suited for heavy-duty metal cleaning in ultrasonic liquid-immersion machines to remove high-viscosity oils, greases and paraffin wax.

Material Friendly

4005 is well suited to work on all metals, ceramic and other non-conducting materials. Generally compatible with elastomeric materials with an exception for fluoroelastomers which can swell. It is recommended that all materials be tested prior to use. (See Chart Below).

Performance Features

4005 was developed with the workers health and safety in mind without sacrificing performance or adding negative environmental attributes.

- Non-ozone depleting chemical
- Drop-in replacement for PERC
- Non-Hazardous with low toxicity providing a high allowable exposure limit
- Non-Flammable
- Chemically stable

Recycling!

By adding commercially available modular recycling units, 4005 can be reclaimed and reused through a simple process. With its phenomenal chemical stability, recycling can recover the solvent with a typical yield range of 80 to 95% resulting in sizable savings. Contact technical services for more information!

Material Compatibility

	Compatible	Additional Testing Required
Metals	Aluminum, Copper, S/S Titanium, Brass, Tungsten	N/A
Elastomers	Neoprene, Butyl Rubber, EPDM, Kynar (PVDF)	Viton A & B, Kalrez
Plastics	HDPE, PTFE, Nylon, PVC Epoxy, Phenolic	Acrylic, ABS, Polycarbonate

Physical Properties

Property	Ecolink 4005	TCE	nPB
Boiling Point °C	5	87	71
Density at 25°C kg/liter	1.28	1.46	1.35
Surface Tension at 25°C dyne/cm	20	32.3	25.9
Viscosity at 25°C, cPs	0.45	0.54	0.49
Vapor Pressure at 25°C kPa	47	9.9	20.3
Heat of Vaporization @bp cal/g	61.2	56	58.8
Global Warming Potential	30	n/a	n/a
Ozone Depleting Chemical	No	No	No
Volatile Organic Compounds (VOC) g/l	1,143	1,470	1,350
KB Value	98	120	125

Keeping Workers Safe

The results from acute toxicity studies has proven that 4005 has low toxicity. The ingredients in 4005 do not have any chronic or acute toxicity associated with them which makes it a worker friendly solvent.

Please refer to the SDS for more details related to exposure limits and toxicity-related data.

4005 is not classified as a flammable liquid per the definitions by NFPA or DOT as it has no closed cup or open cup flash point. Even so, volatility means that vapors can become flammable in air. The Chart below shows Flash point data and vapor flammability limits.

Storage Notes

4005 is stable both thermally & chemically. Notable features include:

- Non-reactive
- low water solubility
- will not oxidize or degrade when exposed to air.
- No affect by sunlight or UV radiation.

Standard practice for storing include keeping 4005 away from food sources and volatile temperatures. Freezing temperatures will lead to drum compression while hot temperatures will cause ballooning of the drum. The product still remains usable and effective after these conditions.

Packaging & Availability

4005 is available in the following packaging:

- 55-gallon phenolic lined metal drums
- 5-gallon phenolic lined pails

Flammability

	Test Method	Ecolink 4005
Flash Point (CC)	ASTM D93	None
Flash Point (OC)	ASTM D1310	None
Flammability in Air	ASTM E681	
Lower Explosivity		8.8 vol%
Upper Explosivity		11.6 vol%