

Anne's Astonishing Antidote

Heavy Duty Ultrasonic Liquid Immersion Solvent

Technical Data Sheet

Introducing AAA!

Anne's Astonishing Antidote is a effective blend of non- flammable hydrofluoroethers (HFEs) and trans-1, 2-dichloroethylene (t-DCE) developed for heavy duty degreasing applications.

Anne's Astonishing Antidote is a ready made and capable substitute for n-propyl bromide (nPB), TCE and other vapor degreasing solvents.

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

Material Friendly

Anne's Astonishing Antidote 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. (Reference Table 1).

What's Great about AAA

Anne's Astonishing Antidote 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

Table 1: Material Compatibility

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

Table 2: Physical Properties

Property	AAA	TCE	nPB
Boiling Point °C [°F]	41 [106]	87[189]	71[160]
Density at 25°C (77°F) kg/liter [lb/gal]	1.27 [10.6]	1.46 [12.15]	1.35 [11.26]
Surface Tension at 25°C (77°F) dyne/cm	21	32.3	25.9
Viscosity at 25°C (77°F), cPs	0.45	0.54	0.49
Vapor Pressure at 25°C (77°F) kPa	44	9.9	20.3
Heat of Vaporization @bp cal/g	59.3	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
Allowable Exposure Limit (AEL) ppm	255	10	<10
Worker Exposure Ceiling (ppm)	No	30	10
KB Value	98	120	125

Keeping Workers Safe

The results from acute toxicity studies has proven that Anne's Astonishing Antidote has low toxicity with a calculated Acceptable Exposure Limit of 255 ppm. The ingredients in Anne's Astonishing Antidote 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.

Anne's Astonishing Antidote 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. Table 3 to follow will show Flash point data and vapor flammability limits.

Storage Notes

Anne's Astonishing Antidote 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 Anne's Astonishing Antidote 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.

Table 3: Flammability

	Test Method	AAA
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%