

Datasheet revision 1.2

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# **PCB Rinsing and Drying Solvent**

## **PRODUCT APPLICATIONS**

Used for all industries, HMT-55CS is a specialty fluid formulated to act as a cleaning, alcohol drying and de-watering agent. This hydrofluoroether is a non-flammable solvent that has excellent material compatibility, low surface tension, low Global Warming Potential, and zero ODP.

- Defluxing of electronics, components and PWB assemblies
- Precision cleaning of metals, alloys, plastics and composites
- Drying agent after cleaning with hydrocarbons, glycols and alcohols
- Replacement for HCFC, Dupont<sup>™</sup> Vertrel® and 3M<sup>™</sup>Novec<sup>™</sup>solvents

#### **PRODUCT BENEFITS**

- Non-flammable
- Non-corrosive
- Low global warming potential
- Zero ozone depletion potential
- Low surface tension, low viscosity, high liquid density
- Superior Drying
- Recyclable
- Can be used with ultrasonics.
- Excellent permeability

## SPECIFICATIONS AND CHARACTERISTICS

Property	Units	Value
Aspect		Transparent, Colorless
Non-Volatile Residues	ppm	<2
Tetra fluoroethyl Ethers	% by weight	92-97%
Ethanol Content	% by weight	3-8%

Property	Units	HMT-55CS	CFC-113	HCFC- 141b	Trichlor- ethylene	Methylene Chloride
Boiling Point	С°	54	48	32	87	39.8
Melting Point	C°	-86	-35	-103	-86	-96.7
Flash Point	C°	NONE	NONE	NONE	NONE	NONE
Density	g/cm <sup>3</sup>	1.40	1.56	1.23	1.46	1.32
Surface Tension	mN/m	16.1	17.3	19.3	22	25.5
Vapor Pressure	kPa	27.5	44.1	75.9	10	73.6
Viscosity	mPa.s	0.43	0.68	0.43	0.62	0.425
Latent Heat of Vaporization	kJ/kg@bp	187	146	223	265	391

# **CLEANING PROCEDURES**

It is recommended that HMT-55CS be used in a vapor degreaser to optimize cleaning efficiency, economy and emission control. Cleaning procedures for HMT-55CS are like those of AK225 and 3M™Novec™ materials. The optimal procedure is to immerse in the boiling solvent, rinsing or spraying with a cool solvent, and then drying in solvent vapor.

## MATERIAL COMPATIBILITY

At boiling for 3 days	Weight change (%)	Linear Swell (%)
Polypropylene	<2.5	<2.0
Polystyrene	<2.0	<1
Polymethyl methacrylate	Affected	Affected
ABS	<7.5	<2.5
PTFE	<2.5	<2.5
Fluroelastomer	>69	>21
Silicon Rubber	<20	<5.0
EPDM	<0.1	<0.1

#### **ENVIRONMENTAL PROPERTIES**

Property	HMT-55CS	
Ozone Depletion Potential (ODP)	NONE	
Global Warming Potential (GWP)	540	
Flash Point	NONE	

#### STORAGE AND SHELF LIFE

Product should be stored in original sealed containers below 50°C. Shelf life under stated conditions is 18 months.

#### PACKAGING

Container Sizes 10ml (0.34oz) Pen, 0.5 Gallon Jug, 1 Gallon Jug, 5 Gallon Jug, 55 Gallon Drum

## **HEALTH AND SAFETY**

**HMT-55CS** is non-flammable. The solvent acts as an azeotrope and is resistant to thermal breakdown and hydrolysis during storage and use. Recommended handling procedures are provided in the SDS.

Please refer to the Safety Data Sheet (SDS) before use. Safety data sheets can be found at www.hmtsolder.com

This data is based on information that the manufacturer believes to be reliable and offered in good faith. In no event will HMT be responsible for special, incidental and consequential damages. The user is responsible to the Administrative Authorities (regulations for the protection of the Environment) for the conformity of his installation.

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