

The Resin Kleen™ Range has been carefully designed to address an increasing need to replace traditional solvents such as:

- Methylene Chloride
- Acetone
- > N-Methyl-2-pyrrolidone (NMP)
- > Tetrahydrofuran (THF) and other undesirable materials.

These products are subject to increasing pressure as a result of their unfavourable environmental characteristics and risks to health.



The Chemical Business Association (CBA) awards companies the right to use the Responsible Care logo which indicates we are committed to and compliant with the CBA's Responsible Care programme. Responsible Care is the chemical industry's commitment to continual improvement in health, safety, security and environmental performance. (CBA, 2015).



# RESIN KLEEN™ RANGE

FOR INDUSTRIAL CLEANING APPLICATIONS

Contact us for samples, product information and technical assistance:

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## RESIN KLEEN™ PS

## RESIN KLEEN™ AF

- UltimatelyBiodegradable
- > High solvency
- > Low toxicity
- Non-chlorinated

#### **APPLICATIONS**

Resin Kleen $^{\mathbb{M}}$  PS is a high solvency, biodegradable solvent system for industrial cleaning applications. Resin Kleen $^{\mathbb{M}}$  PS can replace THF, NMP and other harmful solvents. Resin Kleen $^{\mathbb{M}}$  PS is designed for use at ambient and elevated temperatures.

Resin Kleen™ PS is extremely effective at removing uncured or partially cured polyethersulfone, epoxy and polyester resins and polyurethane foam.

Resin Kleen $^{\text{m}}$  PS is used to remove sealants and adhesives from application tools and spray guns used in conjunction with epoxies, polyurethanes and polyesters.

### **USAGE GUIDELINES**

Developed for use at ambient and elevated temperatures with agitation (up to 60°C on metal and PTFE parts).

#### **BIODEGRADABILITY**

Resin Kleen™ PS is 94% biodegradable after 28 days and is considered Ultimately Biodegradable as per OECD 301.

#### **COMPATIBILITY**

Stainless steel is recommended for storage and piping below 100-120°C. Please contact us for more information.

#### **PHYSICAL PROPERTIES\***

Appearance	Clear liquid
Flash Point, (closed cup)	108°C
Freezing Point	<-10°C
Hazard Classification	H319
Auto-Ignition Temp	280°C

\*All values displayed in this literature are typical values and should not be considered a product specification.

- ReadilyBiodegradable
- > Low odour
- > High solvency
- > Low toxicity
- > Non-chlorinated

## APPLICATIONS

Resin Kleen™ HF is a high solvency, low odour, readily biodegradable solvent system for industrial cleaning applications.

Resin Kleen™ HF can replace methylene chloride, acetone and other harmful solvents. It is designed for use at ambient and elevated temperatures.

Resin Kleen™ HF is extremely effective at removing uncured or partially cured polyurethane foam, epoxy and polyester resin systems.

Resin Kleen™ HF is used to remove sealants and adhesives from application tools and spray guns used in conjunction with epoxies, polyurethanes and polyesters.

Resin Kleen™ HF is suitable for use in submerging systems for cleaning hot melt adhesive application tools.

## **USAGE GUIDELINES**

Developed for use at ambient and elevated temperatures with agitation (up to 60°C on metal and PTFE parts).

#### **BIODEGRADABILITY**

Resin Kleen™ HF meets OECD 301 guideline and is considered Readily Biodegradable.

#### **DISPOSAL SUGGESTIONS**

**Smaller processors.** The most economical disposal method is to solidify the waste by adding a small amount of peroxide and resin. Dispose of as solid waste or via waste incineration.

**Larger processors.** It may be more economical to recover the solvent.

#### SOLVENT RECOVERY

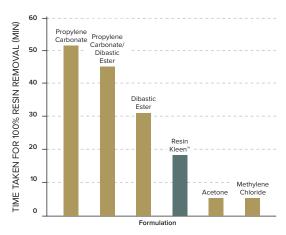
Resin Kleen™ HF can be recovered through filtering, followed by vacuum distillation. Laboratory testing shows recovery of up to 42% as a clear solvent. Please contact us for more information.

#### PHYSICAL PROPERTIES\*

Appearance	Clear liquid
Colour	Colourless/pale yellow
Odour	low to ethereal
Flash Point, PMCC	> 80°C
Evaporation Rate	Moderate
Hazard Classification	H302, H319, H373
Auto-Ignition Temp	270°C

<sup>\*</sup> All values displayed in this literature are typical values and should not be considered a product specification.

#### PERFORMANCE DATA



For a procedure in which polyester resin was coated onto aluminium strips, partially cured for (12 hrs) and submerged in a beaker containing the respective formulations, at ambient temperature in the absence of agitation (experiment covered under patent U.S. P. 6,187,108).