### **Technical Bulletin**

# RAINOFF® A-1800

Modified resin base, durable water repellent and extender for fluorocarbon water repellent emulsions.

#### **PROPERTIES**

**Appearance** - Smooth off white emulsion.

**pH (5% solution)** - 6.5

**Density** - 8.5 lbs./gallon

**Stability** - Minimum 6 months

**% Active** - 25%

**Solubility** - Readily in water at room temperature.

#### **GENERAL COMMENTS**

**RAINOFF® A-1800** is a resin based durable water repellent emulsion especially designed for use as an extender in the fluoro-chemical oil and water resistant finish. Extensive testing has proven this product to be an outstanding excellent extender for the following.

**RAINOFF® A-1800** delivers excellent water repellent and stain resistant characteristics when used with Zepel®, Scotchgard® and Milease® fluoro-chemical products.

**RAINOFF® A-1800** is slightly cationic and is therefore compatible with typical fabric finishes.

**RAINOFF® A-1800** exhibits good pad bath and processing stability in the presence of thermosetting resins and catalyst.

**RAINOFF® A-1800** can give considerable savings by reducing the time for preparing the pad baths; eliminating steam and heat as required for other extenders, and shows improved performance and efficiency for less extender cost.

**RAINOFF® A-1800** is also useful as a durable water repellent finish for application alone or with thermosetting resins an cottons, rayons, nylons and an appropriate metal salts catalyst.

#### **APPLICATIONS**

- To insure optimum wash fastness and dry cleaning fastness, the fabric should be thoroughly cleaned and rinsed to permit full absorbency of applied finish solutions.
- In application where the fabric is to be "napped" the use of **RAINOFF**® **A-1800**, without catalyst or curing, gives a most desirable hand and offers some lubricity to the napping operation.

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Under normal padding conditions with a minimum of 75% wet pick-up, we suggest the following formulation for the use as an extender in fluoro-chemical applications:

- A. Oil and water stain repellent non- resinous formulation:
  - 10% RAINOFF® A-1800
  - 2-1/2% Scotchguard<sup>®</sup> FC-208 or 4-1/4% Zepel or 2% RAINOFF<sup>®</sup> F-88

Mix well, apply by pad, foam or spray, dry cure at 270-330°F.

- B. Durable water repellent formulation Cotton or Rayon outerwear:
  - 10-15% **RAINOFF® A-1800**
  - 3-4% **ECCO REZ M-907**™ (Melamine formaldehyde replacement resin)
  - 2% CATALYST RD LIQUID™
  - 1% Aqua Ammonia
  - 79-85% Water

Pre-dissolve the **CATALYST RD LIQUID™** in a portion of the water, add to the **RAINOFF®**/resin solution and apply, followed by normal curing at 320°F for 3-4 minutes.

Differences in fabric weight may necessitate changes in curing conditions or modification of the above formulations to give softer hand.

#### **STABILITY**

**RAINOFF® A-1800** is considered stable for 6-9 months storage under normal conditions. Protection from freezing is necessary as successive freezing and thawing will cause the emulsion to deteriorate.

* Scotchgard FC-208®	Minisota	Mining &	Manufacturing	Company.
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\* Zepel<sup>®</sup>..... E.I. Dupont Company.

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