

# **ChemSkin™ Polyurea**

# CHEMICAL RESISTANCE CHART

# 21 Day Immersion Test ASTM D3912

Chemical NameResults @ 25°CAcetoneRAcetoneRAmmonium Hydroxide (14%)RBrake FluidRBrine-Saturated Water (310g/l)RClorox (10%) WaterRDiesel FuelRGasolineRGasoline 5% MTBERGasoline 5% MethanolRHydrochloric Acid (25%)RHydrochloric Acid (10%)RHydraulic FluidRIsopropyl AlcoholRLactic AcidRMEKRMethylene ChlorideCMineral SpiritsRMotor OilRMTBECMuriatic Acid (10%)RNaCl Water (10%)RNitric Acid (20%)RCPhosphoric Acid (10%)RPotassium Hydroxide (10%)RPotassium Hydroxide (20%)R. DisSkydrolRSodium Hydroxide (25%)R. DisSodium Hydroxide (25%)R. DisSodium BicarbonateRStearic AcidRSugar WaterRSulfuric Acid (10%)RCSulfuric Acid (30%)NRTolueneRTrisodium PhosphateRVinegar Water (5%)RWaterRWater (14 days @ 82°C)R		21 Day
Acetone R Ammonium Hydroxide (14%) R Brake Fluid R Brine-Saturated Water (310g/l) R Clorox (10%) Water R Diesel Fuel R Gasoline R Gasoline S% MTBE R Gasoline 5% Methanol R Hydrochloric Acid (25%) R Hydrochloric Acid (10%) R Hydraulic Fluid R Isopropyl Alcohol R Lactic Acid R MEK R Methanol R Methylene Chloride C Mineral Spirits R Motor Oil R MTBE C Muriatic Acid (10%) R NaCl Water (10%) R Nitric Acid (20%) RC Phosphoric Acid (10%) R Potassium Hydroxide (10%) R Potassium Hydroxide (10%) R Sodium Hydroxide (25%) R Sodium Hydroxide (10%) R Sodium Bicarbonate R Stearic Acid R Sugar Water R Sulfuric Acid (10%) RC Sulfuric Acid	<u>Chemical Name</u>	Results @ 25°C
Ammonium Hydroxide (14%)  Brake Fluid  R Brine-Saturated Water (310g/l)  Clorox (10%) Water  R Diesel Fuel  R Gasoline  Gasoline 5% MTBE  Gasoline 5% Methanol  Hydrochloric Acid (25%)  R Hydrochloric Acid (10%)  R Hydraulic Fluid  Isopropyl Alcohol  Lactic Acid  MEK  Methanol  Methylene Chloride  C Mineral Spirits  R Motor Oil  R MTBE  C Muriatic Acid (10%)  R NaCl Water (10%)  R Phosphoric Acid (10%)  R Potassium Hydroxide (20%)  Skydrol  Sodium Hydroxide (25%)  R Sodium Hydroxide (25%)  R Sodium Hydroxide (25%)  R Sodium Hydroxide (25%)  R Sugar Water  R Sulfuric Acid (10%)  RC Sulfuric Acid (10%)  RC Sulfuric Acid (10%)  R SC Sulfuric Acid (10%)  R Sodium Pydroxide (25%)  R Sodium Hydroxide (25%)  R Sodium Hydroxide (25%)  R Sulfuric Acid (10%)  R Sodium R Sugar Water  R Trisodium Phosphate  R Trisodium Phosphate  R Vinegar Water (5%)  R Water		
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Mineral Spirits  Motor Oil  R  MTBE  C  Muriatic Acid (10%)  RR  NaCl Water (10%)  RR  Nitric Acid (20%)  RC  Phosphoric Acid (10%)  R  Potassium Hydroxide (10%)  R  Potassium Hydroxide (20%)  Skydrol  Sodium Hydroxide (25%)  R  Sodium Hydroxide (10%)  R  Sodium Bicarbonate  R  Stearic Acid  Sugar Water  Sulfuric Acid (10%)  RC  Sulfuric Acid (30%)  RR  Trisodium Phosphate  R  Vinegar Water (5%)  R  Water	Methanol	R
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Sulfuric Acid (10%)         RC           Sulfuric Acid (30%)         NR           Toluene         R           Trisodium Phosphate         R           Vinegar Water (5%)         R           Water         R	Sugar Water	R
Sulfuric Acid (30%)  Toluene  R  Trisodium Phosphate  R  Vinegar Water (5%)  R  Water		RC
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Trisodium Phosphate R Vinegar Water (5%) R Water R		
Vinegar Water (5%) R Water R		R
Water R		
Xylene RC		

## 72 Hour Spot Test Chemical Resistance Data

#### APA

Chemical	Rating
NHO₃ 50%	8
HCL 37.5%	9
NaOH 50%	8
H₂SO₄ 50%	8
HI 57%	8
H₃PO₄ 50%	8
Brake Fluid	10
Anti-Freeze	10
Motor Oil	10

#### Rating Guidelines

rtating Gar	demies
0-1	75-100% Film Dissolved
1-2	50-75% Film Dissolved
2-3	25-50% Film Dissolved
3-4	1-25% Film Dissolved
4-5	Film damage severe, cracking, pinholes
5-6	Film moderate to heavy damage, swollen, dulled
6-7	Film moderately damaged, haze, residue
7-8	Film with slight or no damage, slight haze, residue
8-9	Film in very good condition
10	Film unchanged, excellent condition

## \*NOTES:

- --All samples using 57% HI had purple iodine discoloration due to the nature of the acid in the air
- --Samples were placed at room temperature for 72 hours after application of 1 ml of solvent on 16 mil film of product

### **CHART KEY**

R - Recommended (little or no visible damage)

RC – Recommended Condition (swelling or discoloration)

C- Conditional (crackling – wash down within 1 hour)

NR – Not Recommended

Dis. - Discoloration