



ADVANCED POLYMER, INC.

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Hardlen® EW-5303

HARDLEN EW-5303 is a solvent free, water-based binder/primer that provides strong adhesion to polypropylene and polypropylene/EPDM substrates. HARDLEN EW-5303 will provide a flexible coating with an excellent affinity for polyurethane based paint. When used as a primer on polypropylene, the applied topcoat will have a high degree of resistance to water and hydrocarbons.

CHARACTERISTICS

- Superior adhesion to PP, PP/EPDM without pretreatment.
- Excellent adhesion to topcoat paint such as polyurethane or polyester-melamine.
- Tough, transparent film after coating and drying.

APPLICATION

The following is recommended for application:

1. Wash surface of polypropylene substrate with IPA solution.
2. Dilute HARDLEN-EW5303 with water to 5-10% solids by weight.
3. Spray HARDLEN EW-5303 onto substrate (dry thickness $\approx 6\text{g}/\text{m}^2$).
Dry at 80°C for 10 minutes.
4. Spray apply basecoat and clear coat, wet on wet, (basecoat dry thickness $\approx 15\text{g}/\text{m}^2$ / clear coat dry thickness $30\text{g}/\text{m}^2$).
5. Bake at 100°C for 20 minutes; allow to stand at 25°C for 48 hours.

PACKAGING

HARDLEN EW-5303 is available in 8 oz. samples and 397-lb drums.

Hardlen® is a registered trademark of Toyobo Co. Ltd.

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I want to know more!

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TYPICAL PROPERTIES

Appearance:	Milky tan emulsion
Base Resin:	Soft
Resin Content:	30%
Chlorine Content:	17%
pH:	7.4
Molecular Weight: (of Base Resin)	60,000
Viscosity:	<100 cps
Particle Size:	<0.3 μm

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Revised March 24, 2011

HARDLEN® EW-5303

Section 1 - Product Identity

Product Name: HARDLEN EW-5303
 Chemical Name/Family: Modified chlorinated polypropylene
 Product Use: Adhesion promoter
 24 Hour Emergency Number: 800-424-9300
 24 Hour Chemtrec Number: 800-424-9300

Section 2 - Composition/Information on Ingredients

CHEMICAL	CAS #	TWA	STEL	Ceiling	Percent
Modified chlorinated polypropylene	560096-07-3				Trade secret
Emulsifier	Registered				Trade secret
Water					About 70

OSHA Hazardous Component (29CFR1910.1200): Not Established

Section 3 - Hazard Identification

Emergency Overview: No information available
 Color: Yellowish brown
 Physical State: Liquid
 Odor: Slight
 Primary Routes of Entry: Inhalation: No Dermal: Yes Ingestion: Yes
 Acute Health Hazard: No information available
 Chronic Health Hazard: No information available
 Carcinogenicity: No information available
 NTP: No IARC Monograph: No OSHA Regulated: No
 Potential Health Effects:
 Skin: May cause skin irritation
 Eye: May cause eye irritation
 Ingestion: No information available.
 Inhalation: May be harmful if inhaled.
 Medical Condition Generally Aggravated by Exposure: No information available

Section 4 - First Aid Measures

Skin Contact:	Immediately wash skin with soap and water. Wash contaminated clothing before reuse. Get medical attention if needed.
Eye Contact:	Immediately flush eyes with plenty of water. Call a physician.
Ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call local poison control center or physician immediately.
Inhalation:	Immediately remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Please note: Symptoms may be delayed; prompt medical attention may be required. Call a physician.

Section 5 - Fire-Fighting Measures

Flash Point (method used):	N/A
Flammable Limits in Air (% by Volume):	N/A
Fire & Explosion Hazard:	Slight fire hazard
Extinguishing Media:	Foam, Dry Chemical, CO ₂ , Water. Large fires: Use regular foam or flood with fine water spray.
Special Fire Fighting Procedures:	Evacuate personnel to a safe area. Wear self-contained breathing apparatus. Wear full protective equipment. Move container from fire area if it can be done without risk. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Cool container with water spray.
Unusual Fire and Explosion Hazard:	None
Hazardous Decomposition Products:	Thermal decomposition products: chlorine compounds.

HAZARD CLASSIFICATION

Health Hazard:	1
Flammability:	1
Reactivity:	0

Section 6 - Accidental Release Measures

Methods for Cleaning Up:	Soak up with sawdust, sand, oil dry or other absorbent material.
Environmental Precautions:	Collect spilled material in appropriate disposal. Keep out of water supplies and sewers.
Personal Precautions:	Do not touch spilled material. Use personal protective equipment. Isolate hazard and deny entry. Wash hands thoroughly after handling.

Section 7 - Handling & Storage

Handling Conditions:	Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Use spark proof tools and equipment. Use only clean, dry utensils in handling. Grounding and bonding required. ***Agitate contents of container before using.***
Storage Conditions:	Store at temperatures between 41°F (5°C) and 104°F (40°C). Store in a tightly closed container. Store in a well ventilated area. Store away from oxidizing agents, sources of heat, direct sunlight or rain.

Section 8 - Exposure Controls/Personal Protection

Engineering Controls:	Provide emergency eye wash fountain and quick drench shower in work area.
Ventilation:	Provide local exhaust ventilation system.
Respiratory Protection:	Approved air-purifying respirator with organic vapor cartridge or canister.
Eye Protection:	Wear Safety glasses. Wear coverall, chemical goggles.
Skin Protection:	Chemical resistant gloves and clothing.
Other Protective Equipment:	NIOSH approved respirator as needed.
Work Hygienic Measures:	Wash hands after use.
Exposure Guidelines:	Not established.

Section 9 - Physical and Chemical Properties

Boiling Point:	>212°F
Specific Gravity (H ₂ O=1):	1.02
Vapor Pressure:	N/A
Vapor Density (Air=1):	N/A
Percent Volatile by Weight:	70
Evaporation Rate (BuAc=1):	N/A
Solubility in Water:	Soluble
Appearance and Odor:	Yellowish brown liquid with slight odor.

Section 10 - Stability and Reactivity

Stability:	Stable: X	Unstable:
Condition to Avoid:	Avoid heat, flames, sparks and other sources of ignition. Keep container tightly closed. Keep from freezing.	
Incompatibilities:	Acids, oxidizing materials, peroxides.	
Hazardous Decomposition or By-Products:	Thermal decomposition products: chlorine compounds.	
Hazardous Polymerization:	May Occur:	May Not Occur: X

Section 11 - Toxicological Information

Acute Toxicity:	No information available.
Chronic Toxicity:	No information available.
Eye Irritation:	May cause eye irritation.
Skin Irritation:	May cause skin irritation.
Inhalation:	No information available.
Ingestion:	No information available.
Sensitization:	No information available.
Mutagen Effects:	No information available.

Section 12 - Ecological Information

Ecotoxicity Persistence and Degradability: No information available
Bioaccumulative Potential: No information available

Section 13 - Disposal Considerations

Waste Disposal Method: Dispose in accordance with all applicable regulations. Dissolve or mix with combustible solvent and burn in a chemical incinerator equipped with an after burn scrubber. Do not dump this product into sewers, on the ground or into any body of water.

Section 14 - Transport Information

Land Transport (DOT, ADR, RID): Not regulated
Sea Transport (IMDG): Not regulated
Air Transport (ICAO, IATA): Not regulated

Section 15 – Regulatory Information

International Inventories

TSCA (USA)	Yes
DSL (Canada)	Yes
EINECS (Europe)	No information available
ENCS (Japan)	Yes
IECSC (China)	No information available
KECL (Korea)	Yes
PICCS (Philippines)	No
AICS (Australia)	No information available
ERMA (New Zealand)	No information available

Federal Regulations

SARA 313	No information available
SARA 311/312	No information available
Clean Water Act	No information available
Clean Air Act, Section 112 HAPs (see 40CFR61)	No information available

State Regulations

California Proposition 65: This product contains the following Proposition 65 chemicals

<u>Chemical Name</u>	<u>CAS#</u>	<u>Percent</u>
No information available		

Section 16 - Other Information

Date PreparedJanuary 6, 2005
Prepared ByAPI
Date RevisedDecember 18, 2009
Revised ByAPI

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