



**ADVANCED POLYMER, INC.**

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## Hardlen® 13LP

HARDLEN 13LP is a solvent soluble chlorinated polypropylene adhesion promoter for polyolefin substrates.

### CHARACTERISTICS

- Superior adhesion to PP, PP/EPDM and TPO.
- Tough, transparent film after coating and drying.

### APPLICATION

- Insoluble in polar solvents, but soluble in aromatic and aliphatic cyclic hydrocarbons and chlorinated hydrocarbon solvents.
- Can be used as a vehicle for polypropylene ink.
- Can be used in adhesives as a tackifier to promote adhesion to PP, EPDM and TPO.

### PACKAGING

HARDLEN 13LP is available in 8 oz. samples and 44-lb bags.

### TYPICAL PROPERTIES

Appearance:	Slightly yellowish pellet
Orientation:	Isotactic
Resin Content:	100%
Chlorine Content:	26%
Solution Viscosity: (15% toluene solution)	200-800 cps
Softening Point:	100°C
Molecular Weight:	150,000

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

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Revised July 7, 2010

## HARDLEN® 13LP

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### Section I Product Identity

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Product Name: HARDLEN 13LP  
Chemical Name/Family: Modified chlorinated polypropylene  
CAS#: 68442-33-1  
24 Hour Emergency Number 800-424-9300  
24 Hour Chemtrec Number 800-424-9300

All ingredients are listed in EPA's TSCA list of chemical substances

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### Section II Hazardous Components/Composition Information

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<b>CHEMICAL</b>	Chloroform			
CAS#: 67-66-3	USOS:	TWA :	STEL :	PERCENT: 2

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### Section III Physical and Chemical Properties

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Melting Point	90°C (194°F)
Specific Gravity (H <sub>2</sub> O=1)	0.78
Vapor Pressure	N/A
Vapor Density (Air=1)	N/A
Percent Volatile By Weight	N/A
Evaporation Rate (BuAc=1)	N/A
Solubility in Water	Not Soluble
Appearance and Odor	Translucent pellet with distinct odor.

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### Section IV Fire and Explosion Hazard Data

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Flash Point (Method Used)	N/A
Flammable Limits in Air (% By Volume)	N/A
Extinguishing Media	Foam, Dry Chemical, CO <sub>2</sub> , Water
Special Fire Fighting Procedures	Evacuate personnel to a safe area. Wear self-contained breathing apparatus. Wear full protective equipment.
Unusual Fire and Explosion Hazard	None

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### Section V Reactivity Data

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Stability	Stable
Conditions to Avoid	Store in a well ventilated place at temperatures below 120°F. Keep container tightly closed. Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.
Incompatibilities	Combustible materials, acids, oxidizing agents..
Hazardous Decomposition or By Products	Combustion may produce CO <sub>2</sub> , CO, chlorine and toxic vapors.
Hazardous Polymerization	May Not Occur

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## Section VI Health Hazard Data

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Primary Routes of Entry	Inhalation: No	Dermal: Yes	Ingestion: Yes
Acute Health hazard	No information available		
Chronic Health Hazard	No information available		
Carcinogenicity			
NTP: No	IARC Monograph: No	OSHA Regulated: No	

### Signs and Symptoms of Exposure

Skin Contact	Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis.
Eye Contact	Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product.
Ingestion	Although ingestion is unlikely, liquid would irritate upper digestive tract if swallowed.
Inhalation	No information is available.

### Medical Condition Generally Aggravated by Exposure

#### Emergency First Aid Procedures

Eyes	Immediately flush eyes with plenty of water. Call a physician.
Skin	Immediately wash skin with soap and water. Wash contaminated clothing before reuse.
Ingestion	Rinse mouth. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
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.

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## Section VII Precautions for Safe Handling and Use

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Steps to be Taken in Case the Material is Released or Spilled:

Soak up with sawdust, sand, oil dry or other absorbent material. Do not dump this product into sewers, on the ground or into any body of water.

Waste Disposal Method                      As in accordance with EPA and local regulations.

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## Section VIII Special Precautions

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Precautions to be Taken in Handling and Storage:

Store in a well-ventilated place at temperatures below 120°F. Keep container tightly closed. Hazardous to aquatic environments.

## Section IX Control Measures

### Respiratory Protection

Ventilation	Local exhaust	Recommended
	Mechanical	
	Special	
	Other	

### Eye Protection

Safety glasses should be worn

### Protective Gloves

Rubber or plastic gloves should be worn

### Protective Clothing

Rubber apron

### Other Protective Equipment

NIOSH approved respirator as needed

### Other Precautions

Wash hands after use.

## Section X SARA Title III

### SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of SECTION 331 of the EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 and of 40 CFR 371

CAS #

Chemical Name

Percent by Weight

THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL

## Section XI Transportation Information

### SHIPPING INFORMATION

## Hazard Ratings

Health	1
Flammability	1
Reactivity	0

Date Prepared ..... October 19, 2005

Prepared By ..... API

Date Revised ..... November 3, 2009

Revised By ..... API

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