

MATERIAL SAFETY DATA SHEET

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Elf Atochem North America  
 2000 Market Street  
 Philadelphia, PA 19103

Customer Service:  
 (800) 328 - 2811 Business Hours  
 Information:  
 (215) 419 - 7026 Business Hours

EMERGENCY TELEPHONE NUMBERS:

CHEMTREC: (800) 424-9300 (24 hours) or (202) 483-7616  
 MEDICAL: Rocky Mountain Poison Control Center  
 (303) 623-5716 (24 hours)

NAME USED ON LABEL: POLY BD (R) R-45HTLO RESIN

CHEMICAL NAME: N/A  
 CHEMICAL FAMILY: Polybutadiene

Section 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Identity	CAS No.	Typical %	OSHA Hazard
HYDROXY TERMINATED 1,3-BUTADIENE HOMOPOLYMER	69102-90-5	99.9	N
4-Vinylcyclohexene	100-40-3	<50ppm	Y
1,3-Butadiene	106-99-0	< 5 ppm	Y

TSCA Inventory Status:

The ingredient(s) of this product are all on the TSCA Inventory list.

The substance(s) marked with a Y in the OSHA Hazard column above, are those identified as hazardous chemicals under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

VISCOUS CLEAR TO LIGHT YELLOW LIQUID, MILD HYDROCARBON ODOR

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES. THESE PRACTICES INCLUDE AVOIDING UNNECESSARY EXPOSURE AND REMOVAL OF MATERIAL FROM EYES, SKIN AND CLOTHING.

CAUTION!

PROCESSING RELEASES VAPORS OR FUMES WHICH MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

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## Section 3 - HAZARDS IDENTIFICATION

### POTENTIAL HEALTH EFFECTS:

Skin contact and inhalation are expected to be the primary routes of occupational exposure to hydroxy terminated 1,3-butadiene homopolymer. Occupational exposure to this material has not been reported to cause significant adverse health effects. As a finished product, hydroxy terminated 1,3-butadiene homopolymer is a synthetic, high molecular weight polymer. Due to its chemical and physical properties, hydroxy terminated 1,3-butadiene homopolymer does not appear to possess any toxicological properties which would require special handling other than the good industrial hygiene and safety practices employed with any industrial material of this type.

However, under normal processing conditions, this product will release fumes and vapors. Components of these releases may vary with processing time and temperatures. These process releases may produce eye, skin and/or respiratory tract irritation and with repeated or prolonged exposures, nausea, drowsiness, headache and weakness. Good industrial hygiene and safety practices should be used to avoid unnecessary exposures.

## Section 4 - FIRST AID MEASURES

### IF IN EYES:

Immediately flush with plenty of water for at least 15 minutes. Get medical attention.

### IF ON SKIN:

Immediately flush with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Destroy contaminated shoes. Thoroughly clean shoes before reuse.

### IF INHALED:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

## Section 5 - FIRE FIGHTING MEASURES

Flash Point (Test Method): >400 f (Open Cup)  
Autoignition Temperature: NE  
Flammable Limits: Upper: NE  
Lower: NE

### EXTINGUISHING MEDIA:

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Section 5 - FIRE FIGHTING MEASURES

Water spray, carbon dioxide, foam or dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

FIRE AND EXPLOSION HAZARDS:

When burned, hazardous products of combustion including fumes of carbon monoxide, carbon dioxide, and butyl can occur. Avoid breathing fumes from fire exposed material.

Section 6 - ACCIDENTAL RELEASE MEASURES

IF A SPILL OR LEAK OCCURS:

Isolate hazard area and deny entry to unnecessary or unprotected personnel. Contain spilled liquid with sand or earth. Clean up spill immediately, observing precautions in the Personal Protection Section of the MSDS. Avoid runoff into storm sewers and ditches which lead to waterways.

Section 7 - HANDLING & STORAGE

HANDLING:

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin and clothing.  
Avoid breathing vapor.  
Avoid contact with eyes, skin and clothing.  
Keep container closed.  
Use only with adequate ventilation.  
Wash thoroughly after handling.  
Avoid breathing processing fumes or vapors.  
Process using adequate ventilation.

STORAGE:

This material is not hazardous under normal conditions, however, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage.

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Section 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

EYE PROTECTION:

Use good industrial practice to avoid eye contact.

SKIN PROTECTION:

Minimize skin contamination by following good industrial practice. Wearing rubber gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

RESPIRATORY PROTECTION:

Avoid breathing fumes. Use NIOSH approved respiratory protection equipment appropriate to the material and/or its components where airborne exposure is likely. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR 1910.134.

AIRBORNE EXPOSURE GUIDELINES:

	TWA	OSHA PEL STEL	CEILING	TWA	ACGIH TLV STEL	CEILING
	-----	-----	-----	-----	-----	-----
HYDROXY TERMINATED NE		1,3-BUTADIENE NE	HOMOPOLYMER NE	NE	NE	NE
4-Vinylcyclohexene NE		NE	NE	0.1 ppm	NE	NE
1,3-Butadiene 1000 ppm		5 ppm	NE	2 ppm	NE	NE

Section 9 - PHYSICAL & CHEMICAL DATA

Boiling Point, C: >300  
Freezing Point, C: NE

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Section 9 - PHYSICAL & CHEMICAL DATA

Specific Gravity: 0.90  
Vapor Pressure @ 20 C: NE  
Vapor Density: NE  
air=1  
Evaporation Rate: NEGLIGIBLE  
Butyl acetate=1  
% Volatiles: N/A  
Solubility in Water: Negligible  
Appearance and Odor:  
VISCIOUS CLEAR TO LIGHT YELLOW LIQUID, MILD HYDROCARBON ODOR

Section 10 - STABILITY & REACTIVITY

STABILITY:

This material is chemically stable under normal and anticipated storage and handling conditions.

INCOMPATIBILITY:

Acids and strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:

Oxides of carbon and butadiene.

HAZARDOUS POLYMERIZATION:

Does not occur.

Section 11 - TOXICOLOGICAL INFORMATION

No data available.

Section 12 - ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

CHEMICAL FATE INFORMATION:

No data available.

Section 13 - DISPOSAL CONSIDERATIONS

MSDS CODE: S01158  
PRODUCT: POLY BD (R) R-45HTLO RESIN  
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### Section 13 - DISPOSAL CONSIDERATIONS

Dispose of solid waste at properly permitted landfills observing all local, state and federal regulations. Contaminated liquids should be concentrated and incinerated at a properly permitted disposal site again observing all local, state and federal regulations.

CONTAINER HAZARDOUS WHEN EMPTY. Emptied container retains product residue. FOLLOW LABELED WARNINGS EVEN AFTER CONTAINER IS EMPTIED. RESIDUAL DUSTS MAY EXPLODE ON IGNITION. DO NOT CUT, DRILL, GRIND OR WELD ON OR NEAR THIS CONTAINER. Improper disposal or reuse of this container may be dangerous and/or illegal.

### Section 14 - TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME:  
NOT REGULATED  
TECHNICAL SHIPPING NAME:

DOT HAZARD CLASS:  
UN NUMBER:  
PACKING GROUP:  
PRODUCT RQ (LBS):

### Section 15 - REGULATORY INFORMATION

#### SARA HAZARD CLASSIFICATION

Immediate (Acute) Health:	no
Delayed (Chronic) Health:	no
Sudden Release of Pressure:	no
Reactive:	no
Fire:	no

#### SARA Title III, Section 302:

This product does not contain any chemicals currently on the Extremely Hazardous Substance List, Section 302, SARA Title III, above the OSHA de minimis concentration.

#### SARA Title III, Section 313:

This product contains:

1,3-Butadiene  
106-99-0

which is listed on the Toxic Chemical List, Section 313, SARA Title III.

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Section 15 - REGULATORY INFORMATION

CERCLA RQ

This product contains:

4-Vinylcyclohexene	
100-40-3	100 lbs
1,3-Butadiene	
106-99-0	10 lbs

California Propostion 65:

WARNING: This product contains a chemical known to the State of California to cause cancer.

4-Vinylcyclohexene	
100-40-3	<50ppm
1,3-Butadiene	
106-99-0	< 5 ppm

Pennsylvania Right-to-Know

Hazardous Substance List

This product contains:

4-Vinylcyclohexene
100-40-3
1,3-Butadiene
106-99-0

which are listed on the Pennsylvania Hazardous Substance List.

Pennsylvania Right-to-Know

Environmental Hazardous Substance List

This product contains:

1,3-Butadiene
106-99-0

which is listed on the Pennsylvania Environmental Hazardous Substance List.

Pennsylvania Right-to-Know

Special Hazardous Substance List

This product contains:

1,3-Butadiene
106-99-0

which is listed on the Pennsylvania Special Hazardous Substance List.

Massachusetts Right-to-Know

This product contains:

4-Vinylcyclohexene
100-40-3
1,3-Butadiene
106-99-0

which are listed on the Massachusetts Hazardous Substance List.

New Jersey Right-to-Know

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Section 15 - REGULATORY INFORMATION

This product contains:

4-Vinylcyclohexene

100-40-3

1,3-Butadiene

106-99-0

which are listed on the New Jersey Hazardous Substance List.

Section 16 - OTHER

This product contains trace amounts of an odorous material identified as 4-vinylcyclohexene (VCH). If there is a potential of exposure to VCH at concentrations near the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV TWA) of 0.1 ppm refer to Section 8 for exposure control and personal protection information.

Legend

N/A - Not Applicable

NE - Not Established

NJTSN - New Jersey Trade Secret Number

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Supersedes: / /

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