ROCKY HILL, CONNECTICUT 06067 EMERGENCY PHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET Page 01 of 05

Hysol E-20HP Epoxy Adhesive Resin Off-White 29314 RESIN

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Hysol	E-20HP	Ероху	Adhesive	Resin	Off-White
Item No.:	29314	RESIN		Part of	E Kit:	29314
Product Type:	Epoxy	Resin				

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	010
Epoxy resin	Proprietary	70-90
Additive	Proprietary	10-30

The following numbers have been used to register components of this product as trade secrets for the State of New Jersey: NJ TSRN 06-070-1067-5037P NJ TSRN 06-070-1067-5040P

Ingredients which have exposure limits

Exposure Limits Ingredients	(TWA)	ACGIH (TLV)	OSHA (PEL)	OTHER
Exposure Limits Ingredients	(STEL)	ACGIH (TLV)	OSHA (PEL)	

3. HAZARDS IDENTIFICATION

Primary Routes of Entry: Skin or eye contact. Signs and Symptoms	
of Exposure: Prolonged or repeated contact may cause allergic skin reaction. Direct contact can cause moderate skin and eye irritation.	
Existing Conditions Aggravated by Exposure: Preexisting skin disorders; allergies.	
Aggravated by Exposure. Preexisting skin disorders, allergies.	
Literature Referenced Carcinogen	
Ingredients Target Organ and Other Health Effects NTP IARC OSH	A
Epoxy resin ALG IRR NO NO NO	
Additive NTO NO NO NO	

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Product Name:Hysol E-20HP Epoxy Adhesive Resin Off-WhiteItem No.:29314 RESIN

3. HAZARDS IDENTIFICATION

(continued)

Abbreviations

ALG Allergen NTO No Target Organs IRR Irritant

4. FIRST AID MEASURES

Ingestion:	Do not induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation:	Remove to fresh air. If symptoms persist, obtain
	medical attention.
Skin Contact:	Remove contaminated clothing, wash immediately
	with soap and water. Wash contaminated clothing
	thoroughly before reuse. If irritation persists,
	obtain medical attention.
Eye Contact:	Flush thoroughly with water. If irritation
	persists, obtain medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: Recommended	More than 200°F	Method: Setaflash
Extinguishing Agents: Special Firefighting	Water fog, carbon dioxide,	foam, or dry chemical.
Procedures:	Not available	
Hazardous Products formed		
by Fire or Thermal Decomp	Oxides of carbon, aldehydes organic substances.	, acids, and other
Unusual Fire or		
Explosion Hazards:	May decompose above 300°F; 500°F, in which case closed rupture or explode. Fumes thermal and chemical decomp composition and toxicity.	d containers may and vapor from positions vary in
Explosive Limits: (% by volume in air)Lower (% by volume in air)Upper		
6. ACCIDENTAL RELEASE ME	ASURES	
Steps to be taken in case of spill or leak:	Avoid skin contact. Scrape	up as much as possible.

Clean residues with solvent or soap and water.

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Product Name:Hysol E-20HP Epoxy Adhesive Resin Off-WhiteItem No.:29314 RESIN

7. HANDLING AND STORAGE

Safe Storage:Store in a cool, dry place. Keep away from
sources of ignition above 300 F°.(Contact Loctite CustomerService 1-800-243-4874 for shelf life information)
Avoid skin or eye contact.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes:	Chemical splash goggles or safety glasses with
	side shields.
Skin:	Chemical impermeable gloves.
Ventilation:	Normal mechanical ventilation is usually adequate.
Respiratory	Use a NIOSH approved respirator as required to
	prevent overexposure.

See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Pale yellow liquid
Odor:	Faint epoxy
Boiling Point:	More than 500°F
pH:	Does not apply
Solubility in Water:	Negligible
Specific Gravity	1.17
Volatile Organic Compound	
(EPA Method 24)	0.67 %; 7.84 grams/liter
	(3.61% tested as mixed with hardener)
Vapor Pressure:	0.03 @ 77°F
Vapor Density:	Not available
Evaporation Rate	
(Ether = 1)	Not available

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous Polymerization:	Reaction with some curing agents may produce exothermic reactions which in large masses could cause runaway polymerization.
Incompatibility:	Strong oxidizing agents, strong acids, and strong bases; primary and secondary aliphatic amines.
Conditions to Avoid:	Keep away from sources of heat above 300°F.
Hazardous Decomposition	
Products (non-thermal):	None

HENKEL LOCTITE CORPORATIO	N 10/28/02 ROCKY HILL, CONNECTICUT 06067 EMERGENCY PHONE: (860) 571-5100
	MATERIAL SAFETY DATA SHEET Page 04 of 05
Product Name: Item No.:	Hysol E-20HP Epoxy Adhesive Resin Off-White 29314 RESIN
11. TOXICOLOGICAL INFORM	ATION
	See Section 3.
12. ECOLOGICAL INFORMATI	ON
	No data available
13. DISPOSAL CONSIDERATI	ONS
Recommended methods of disposal: EPA Hazardous Waste Number	Incinerate following EPA and local regulations. NH - Not a RCRA Hazardous Material for Disposal
14. TRANSPORTATION INFOR	MATION
DOT (49 CFR 172) Domestic Ground Transpor Proper Shipping Name: Hazard Class or Division: Identification Number: Marine Pollutant: IATA Proper Shipping Name: Class or Division: UN or ID Number:	Unrestricted Unrestricted None None
15. REGULATORY INFORMATI	
CA Proposition 65:	Warning: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.
16. OTHER INFORMATION	
Estimated NFPA(R) Code: Health Hazard: Fire Hazard: Reactivity Hazard: Specific Hazard:	2 1 1 Does not apply
Estimated HMIS(R) Code: Health Hazard: Flammability Hazard: Reactivity Hazards: Personal Protection:	2 1 1 See Section 8.

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Product Name:Hysol E-20HP Epoxy Adhesive Resin Off-WhiteItem No.:29314 RESIN

16. OTHER INFORMATION

(continued)

NFPA is a registered trademark of the National Fire Protection Assn. HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By:	Gary Pierson	
Title:	Environmental Health and Saf	ety Specialist
Company:	Henkel Loctite Corporation,	Rocky Hill CT 06067
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Revision Date:	January 09, 2001	Revision: 0004

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MATERIAL SAFETY DATA SHEET Page 01 of 05

Hysol E-20HP Epoxy Adhesive Hardener Off-White 29314 HARDENER

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Hysol	E-20HP	Ероху	Adhesive	Hardener	Off-White
Item No.:	29314	HARDENI	ER	Part of	E Kit:	29314
Product Type:	Ероху	Hardene	er			

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	00
Substituted polyamine	Proprietary	30-60
Substituted polyamine	Proprietary	30-60
Additive	Proprietary	5-10
Substituted aminophenol	Proprietary	1-5
Diethyleneglycol		
monoethyl ether*	111-90-0	1-5
Glycerine	56-81-5	1-5
Modified silicon dioxide	68611-44-9	1-5

* This component is listed as a SARA Section 313 Toxic Chemical.

The following numbers have been used to register components of this product as trade secrets for the State of New Jersey: NJ TSRN 06-070-1067-5054P NJ TSRN 06-070-1067-5055P

NJ TSRN 06-070-1067-5052P NJ TSRN 06-070-1067-5056P

Ingredients which have exposure limits

Exposure Limits (TWA)	ACGIH	OSHA	OTHER
Ingredients	(TLV)	(PEL)	
Glycerine	10mg/m3 TWA mist	10mg/m3mistdust 5mg/m3mist resp	
Modified silicon dioxide	10mg/m3 (Inhal) 3mg/m3 (Resp)	20 mppcf	6 mg/m3
Exposure Limits (STEL)	ACGIH	OSHA	
Ingredients	(TLV)	(PEL)	

3. HAZARDS IDENTIFICATION

Toxicity: Severe eye and skin irritant. May cause burns of the eyes and skin. May cause severe respiratory tract irritation. Ingestion may result in severe gastric disturbances. Inhalation overexposure may cause central nervous

HENKEL LOCTITE CORPORATION			:	10/28/02
ROCKY HILL, CONNECTICUT 06067				
	EMERGENCY PHONE: (860) 571-5100			
	MATERIAL SAFETY DATA SHEET	P	age	02 of 05
Product Name: Item No.:	Hysol E-20HP Epoxy Adhesive Hardene 29314 HARDENER	r Off	-Whi	te
3. HAZARDS IDENTIFICATI	ON		(coi	ntinued)
	system depression.			
Primary Routes of Entry: Signs and Symptoms	Eyes, skin, ingestion, inhalation.			
of Exposure:	Eye and skin irritation. Respirato irritation. Inhalation of vapors m headache, dizziness, drowsiness and incoordination.	ay ca		
Existing Conditions				
Aggravated by Exposure:	None known			
L	iterature Referenced	Car	cino	qen
Ingredients T	arget Organ and Other Health Effects	NTF	P IAR	C OSHA
Substituted polyamine	NTO	NO	NO	NO
Substituted polyamine	No Data	NO	NO	NO
Additive	No Data	NO	NO	NO
Substituted aminophenol	No Data	NO	NO	NO
Diethyleneglycol monoethyl ether	BLO CNS IRR KID	NO	NO	NO
Glycerine	BLO IRR KID NUI	-	NO	NO
Modified silicon dioxide		NO	-	NO
Abbreviations				
BLO Blood	CNS Central nervous sy	stem		
IRR Irritant	KID Kidney			
NTO No Target Organs	NUI Nuisance dust			

4. FIRST AID MEASURES

Ingestion:	Do not induce vomiting. Keep individual calm.		
	Obtain medical attention.		
Inhalation:	Remove to fresh air. If symptoms persist,		
	seek medical attention.		
Skin Contact:	Flush with water for at least 15 minutes		
	while removing contaminated clothing and shoes		
	Wash clothing before reuse. Obtain medical		
	attention.		
Eye Contact:	Flush eyes with plenty of water for at least		
	15 minutes. Obtain medical attention.		

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Product Name:Hysol E-20HP Epoxy Adhesive Hardener Off-WhiteItem No.:29314 HARDENER

5. FIRE FIGHTING MEASURES

Flash Point: More than 200°F Method: Setaflash Recommended Extinguishing Agents: Water fog, carbon dioxide, foam, dry chemical Special Firefighting Procedures: Not available Hazardous Products formed by Fire or Thermal Decomp Oxides of carbon, oxides of nitrogen, hydrogen fluoride, ammonia, irritating vapors. Unusual Fire or Explosion Hazards: None Explosive Limits: (% by volume in air)Lower Not available (% by volume in air)Upper Not available

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case
of spill or leak:
 Remove sources of ignition. Maintain adequate
 ventilation. Wear butyl rubber protective
 clothing. Avoid skin contact. Scrape up as much as
 possible. Store in a closed container until
 disposal. Clean residue with soap and water.

7. HANDLING AND STORAGE

Safe Storage:	Store in a cool, dry place in closed containers.
	Keep away from ignition sources and high
	temperatures.
(Contact Loctite Customer	Service 1-800-243-4874 for shelf life information)
Handling:	Avoid skin or eye contact. Avoid breathing vapors.
	Do not use near sources of ignition.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes:	Safety glasses or goggles.
Skin:	Butyl rubber gloves.
Ventilation:	General and local exhaust ventilation.
Respiratory	Not required under normal conditions when
	workplace is properly ventilated.

See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellow liquid.
Odor:	Mild
Boiling Point:	Not determined

(continued)

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MATERIAL SAFETY DATA SHEET Page 04 of 05

Product Name:Hysol E-20HP Epoxy Adhesive Hardener Off-WhiteItem No.:29314 HARDENER

9. PHYSICAL AND CHEMICAL PROPERTIES

pН: Does not apply Solubility in Water: Partial Specific Gravity 1.15 Volatile Organic Compound (EPA Method 24) 4.87%; 55.95 grams/liter (3.16% tested as mixed with resin) ری.یہۃ tested Not available Vapor Pressure: Vapor Density: Not available Evaporation Rate (Ether = 1)Not available

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous Polymerization:	Will not occur
Incompatibility:	Oxidizers, mineral acids.
Conditions to Avoid:	Not available
Hazardous Decomposition	
Products (non-thermal):	None

11. TOXICOLOGICAL INFORMATION

See Section 3.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended methods of		
disposal:	Incinerate following EPA and local regulations.	
EPA Hazardous Waste		
Number	NH - Not a RCRA Hazardous Material for Disposal	

14. TRANSPORTATION INFORMATION

DOT (49 CFR 172)	
Domestic Ground Transport	
Proper Shipping Name:	Consumer Commodity (Not more than one liter); Amines, liquid corrosive, n.o.s. (contains substituted polyamine) (More than one liter)
Hazard Class or	
Division:	ORM-D (Not more than one liter);
	Class 8, Packing Group II (More than one liter)
Identification Number:	None (Not more than one liter);
	UN 2735 (More than one liter)
Marine Pollutant:	None

	ROCKY HILL, CONNECTICUT 06067	10/28/02
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	MATERIAL SAFETY DATA SHEET	Page 05 of 05
Product Name: Item No.:	Hysol E-20HP Epoxy Adhesive Ha 29314 HARDENER	ardener Off-White
14. TRANSPORTATION INFORM	IATION	(continued)
IATA Proper Shipping Name: Class or Division: UN or ID Number:	Amine, liquid, corrosive, n.o substituted polyamine) Class 8, Packing Group II UN 2735	.s. (contains
15. REGULATORY INFORMATIO	DN	
CA Proposition 65:	WARNING: This product contains the State of Californ	
16. OTHER INFORMATION		
Estimated NFPA(R) Code: Health Hazard: Fire Hazard: Reactivity Hazard: Specific Hazard:	2 1 O Does not apply	
Estimated HMIS(R) Code: Health Hazard: Flammability Hazard: Reactivity Hazards: Personal Protection:	2* 1 0 See Section 8.	
NFPA is a registered HMIS is a registered		
Prepared By: Title: Company: (24hr.) Phone: Revision Date:	Gary Pierson Environmental Health and Safet Henkel Loctite Corporation, Ro (860) 571-5100 January 09, 2001	