

**SAFETY DATA SHEET****SECTION 1. IDENTIFICATION****Product identifier used on the label**: **E645, Part 1****Other means of identification** : None assigned.**Recommended use of the chemical and restrictions on use**: Resin component  
Recommended restrictions: None known.**Chemical family** : Mixture**Name, address, and telephone number of the supplier:****Beacon Adhesives**125 Macquesten Parkway South  
Mount Vernon, NY, USA  
10550

Supplier's Telephone # : (914) 699 3400

**24 Hr. Emergency Tel #** : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).**Name, address, and telephone number of the manufacturer:**

Refer to supplier

**SECTION 2. HAZARDS IDENTIFICATION****Classification of the chemical**

Clear colourless liquid. Slight ethereal odour

Most important hazards :Flammable liquid Harmful if swallowed, in contact with skin or if inhaled. May damage fertility or the unborn child.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification :

Flammable Liquids - Category 3  
Acute toxicity, oral - Category 4  
Acute toxicity, inhalation - Category 4  
Acute Toxicity, dermal - Category 4  
Reproductive Toxicity - Category 1B**Label elements***Hazard pictogram(s)**Signal Word*

DANGER!

*Hazard statement(s)*Flammable liquid and vapour.  
Harmful if swallowed, in contact with skin or if inhaled.  
May damage fertility or the unborn child.

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### Precautionary statement(s)

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Keep container tightly closed.  
 Ground/Bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/lighting/equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Wash hands thoroughly after handling.  
 Avoid breathing mist or vapours.  
 Do not eat, drink or smoke when using this product.  
 Wear protective gloves/clothing and eye/face protection.

IF ON SKIN: Wash with plenty of soap and water.  
 Call a POISON CENTER or doctor/physician if you feel unwell.  
 Take off immediately all contaminated clothing and wash it before reuse.  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 Call a POISON CENTER or doctor/physician if you feel unwell.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 Call a poison center/doctor if you feel unwell.  
 In case of fire: Use water fog, dry chemical, CO2 or 'alcohol' foam to extinguish.

Store locked up.  
 Store in a well-ventilated place. Keep cool.  
 Keep container tightly closed.

Dispose of contents/container in accordance with local regulation.

### Other hazards

Other hazards which do not result in classification: :  
 Burning produces obnoxious and toxic fumes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Glycol ethers	Proprietary	Proprietary	Proprietary

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

### SECTION 4. FIRST-AID MEASURES

#### Description of first aid measures

- Ingestion* : Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
- Inhalation* : If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Call a POISON CENTER or doctor/physician.
- Skin contact* : Immediately flush with plenty of water, while removing contaminated clothing. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.
- Eye contact* : For eye contact, flush with running water for at least 15 minutes. If eye irritation persists: get medical advice/attention.

#### Most important symptoms and effects, both acute and delayed

- : May be harmful if inhaled. Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful in contact with skin. May damage fertility or the unborn child if inhaled.

#### Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically.

## SAFETY DATA SHEET

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing media

##### *Suitable extinguishing media*

: Carbon dioxide (CO<sub>2</sub>); Dry chemical; Alcohol resistant foam; Water fog

##### *Unsuitable extinguishing media*

: Do not use a solid water stream as it may scatter and spread fire.

#### Special hazards arising from the substance or mixture / Conditions of flammability

: Flammable liquid and vapour. Vapours may ignite explosively. Vapours are heavier than air and may spread along floors. Static discharge, impact, friction, and heat may ignite exposed chemical material.

Empty containers may contain hazardous residues.

#### Flammability classification (OSHA 29 CFR 1910.106)

: Flammable Liquids - Category 3

#### Hazardous combustion products

: Carbon dioxide and carbon monoxide.

#### Special protective equipment and precautions for firefighters

##### *Protective equipment for fire-fighters*

: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Do not enter without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective clothing (Bunker Gear) will not provide adequate protection. A full-body encapsulating chemical protective suit with positive pressure self-contained breathing apparatus (NIOSH approved or equivalent) may be necessary.

##### *Special fire-fighting procedures*

: Do not breathe fumes or vapours. Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

: All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

**Environmental precautions** : Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

#### Methods and material for containment and cleaning up

: Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools and equipment in the clean-up process. Avoid breathing mist or vapours. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contact the proper local authorities. Refer to Section 13 for disposal of contaminated material.

#### Special spill response procedures

: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802). EPA/CERCLA Reportable quantity (RQ): See section 15.

### SECTION 7. HANDLING AND STORAGE

#### Precautions for safe handling

: Wear protective gloves/clothing and eye/face protection. Use only in well-ventilated areas. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep away from flames and hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharges. Ground all equipment during handling.

**Conditions for safe storage** : Keep container tightly closed. Store in cool/well-ventilated place. Store locked up. Keep cool. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking. Empty containers may contain hazardous residues.

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**Incompatible materials** : Strong oxidizers (e.g. Chlorine, Peroxides, etc.).

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limits:</u>				
<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Glycol ethers	0.1 ppm (skin)	N/Av	25 ppm (80 mg/m <sup>3</sup> ) (skin)	N/Av

#### **Exposure controls**

##### **Ventilation and engineering measures**

: Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use explosion-proof equipment. In case of insufficient ventilation wear suitable respiratory equipment.

##### **Respiratory protection**

: If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Advice should be sought from respiratory protection specialists.

##### **Skin protection**

: Wear protective gloves/clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

##### **Eye / face protection**

: Wear eye/face protection. Wear safety glasses with side shields ( or goggles).

##### **Other protective equipment**

: Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

##### **General hygiene considerations**

: Avoid breathing fumes, mists or vapors. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not take contaminated clothing home. Handle in accordance with good industrial hygiene and safety practice.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : Clear colourless liquid.

**Odour** : Ethereal odour

**Odour threshold** : Not available.

**pH** : None.

**Melting Point/Freezing point** : Not available.

##### **Initial boiling point and boiling range**

: Not available.

**Flash point** : >23°C

**Flashpoint (Method)** : Cleveland closed cup

**Evaporation rate (BuAe = 1)** : Not available.

**Flammability (solid, gas)** : Not applicable.

##### **Lower flammable limit (% by vol.)**

: Not available.

##### **Upper flammable limit (% by vol.)**

: Not available.

**Oxidizing properties** : None.

**Explosive properties** : Not explosive

**Vapour pressure** : Not available.

**Vapour density** : Not available.

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### Relative density / Specific gravity

: Not available.

**Solubility in water** : Not available.

**Other solubility(ies)** : Not available.

### Partition coefficient: n-octanol/water or Coefficient of water/oil distribution

: Not available.

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : No information available.

**Viscosity** : Not available.

**Volatiles (% by weight)** : No information available.

### Volatile organic Compounds (VOC's)

: No information available.

### Absolute pressure of container

: Not applicable.

**Flame projection length** : Not applicable.

### Other physical/chemical comments

: None known or reported by the manufacturer.

## SECTION 10. STABILITY AND REACTIVITY

**Reactivity** : Not normally reactive.

**Chemical stability** : Stable under normal conditions.

### Possibility of hazardous reactions

: Hazardous polymerization does not occur.

**Conditions to avoid** : Open flames, sparks, high heat, direct sunlight, and close proximity to incompatible substances. Do not use in areas without adequate ventilation.

**Incompatible materials** : Strong oxidizers.

### Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

**Routes of entry inhalation** : YES

**Routes of entry skin & eye** : YES

**Routes of entry Ingestion** : YES

**Routes of exposure skin absorption**

: YES

### Potential Health Effects:

#### Signs and symptoms of short-term (acute) exposure

##### *Sign and symptoms Inhalation*

: Harmful if inhaled. Mild respiratory irritation, sneezing or coughing, possible headache, nausea or drowsiness.

##### *Sign and symptoms ingestion*

: Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

##### *Sign and symptoms skin*

: Harmful if absorbed through the skin. Direct skin contact may cause slight or mild, transient irritation.

##### *Sign and symptoms eyes*

: Direct eye contact may cause slight or mild, transient irritation.

#### Potential Chronic Health Effects

: Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

**Mutagenicity** : Not expected to be mutagenic in humans.

**Carcinogenicity** : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

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### Reproductive effects & Teratogenicity

: Reproductive Toxicity - Category 1B May damage fertility or the unborn child.

**Sensitization to material** : Not expected to be a skin or respiratory sensitizer.

**Specific target organ effects** : According to the classification criteria of U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015), this product is not expected to cause target organ toxicity through single or repeated exposures.

### Medical conditions aggravated by overexposure

: Pre-existing skin, eye and respiratory disorders.

**Synergistic materials** : No information available.

**Toxicological data** : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data. The calculated ATE values for this mixture are:  
ATE oral = 1015.98 mg/kg  
ATE dermal = 1484.01 mg/kg  
ATE inhalation (vapours) = 18.03 mg/L

<u>Chemical name</u>	<u>LC<sub>50</sub>(4hr)</u> <u>inh, rat</u>	<u>LD<sub>50</sub></u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Glycol ethers	> 12.4, < 17.8 mg/L (vapour)	1000 - 1500 mg/kg (guinea pig; rabbits) 2460 mg/kg (rat)	1300 mg/kg

### Other important toxicological hazards

: None reported by the manufacturer.

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity** : Do not allow material to contaminate ground water system. See the following tables for the substance's ecotoxicity data.

### Ecotoxicity data:

<u>Ingredients</u>	<u>CAS #</u>	<u>Toxicity to Fish</u>		
		<u>LC50 / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Glycol ethers	Proprietary	> 10 000 mg/L (Bluegill sunfish)	1815 mg/L (30 days) (QSAR)	None.

<u>Ingredients</u>	<u>CAS #</u>	<u>Toxicity to Daphnia</u>		
		<u>EC50 / 48h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Glycol ethers	Proprietary	27 000 mg/L (Daphnia magna)	> 500 mg/L	None.

<u>Ingredients</u>	<u>CAS #</u>	<u>Toxicity to Algae</u>		
		<u>EC50 / 96h or 72h</u>	<u>NOEC / 96h or 72h</u>	<u>M Factor</u>
Glycol ethers	Proprietary	25 500 mg/L/72hr (Green algae)	N/Av	None.

### Persistence and degradability

: Readily biodegradable

**Bioaccumulation potential** : No information available.

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<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Glycol ethers (CAS Proprietary)	- 0.77	N/Av

**Mobility in soil** : The product itself has not been tested.

**Other Adverse Environmental effects**

: None known.





**SECTION 13. DISPOSAL CONSIDERATIONS**

**Handling for Disposal** : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

**Methods of Disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations.

**RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

**SECTION 14. TRANSPORT INFORMATION**

<b>Regulatory Information</b>	<b>UN Number</b>	<b>UN proper shipping name</b>	<b>Transport hazard class(es)</b>	<b>Packing Group</b>	<b>Label</b>
49CFR/DOT	UN1866	RESIN SOLUTION	3	III	
<b>49CFR/DOT Additional information</b>	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to 49 CFR Section 173.150.				
TDG	UN1866	RESIN SOLUTION, flammable	3	III	
<b>TDG Additional information</b>	May be shipped as a Limited Quantity when transported in containers no larger than 5 L (1.3 gallons); in packages not exceeding 30 kg (66 pounds) gross mass.				
ICAO/IATA	UN1866	Resin solution	3	III	
<b>ICAO/IATA Additional information</b>	Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.				
IMDG	UN1866	RESIN SOLUTION flammable	3	III	
<b>IMDG Additional information</b>	Consult the IMDG regulations for exceptions.				

**Special precautions for user** : Appropriate advice on safety must accompany the package. Keep away from heat, sparks and open flame - No smoking.

**Environmental hazards** : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

: This information is not available.

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## SECTION 15 - REGULATORY INFORMATION

**US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Glycol ethers	Proprietary	Yes	None.	None.	Yes	1%

Flammable; Acute toxicity; Reproductive toxicity. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

**US State Right to Know Laws:**

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Glycol ethers	Proprietary	No	Developmental; male	Yes	Yes	Yes	Yes	Yes	Yes

**Canadian Information:**

Canadian Environmental Protection Act (CEPA): All ingredients are present on the DSL.

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

**International Information:**

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Glycol ethers	Proprietary	203-713-7	Present	Present	(7)-97; (2)-405	KE-23272	Present	HSR001159

## SECTION 16. OTHER INFORMATION

**Legend**

: ACGIH: American Conference of Governmental Industrial Hygienists  
 AICS: Australian Inventory of Chemical Substances  
 ATE: Acute Toxicity Estimate  
 CA: California  
 CAS: Chemical Abstract Services  
 CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
 CFR: Code of Federal Regulations  
 CSA: Canadian Standards Association  
 DOT: Department of Transportation  
 ECHA: European Chemicals Agency  
 ECOTOX: U.S. EPA Ecotoxicology Database  
 EINECS: European Inventory of Existing Commercial chemical Substances  
 ENCS: Existing and New Chemical Substances  
 EPA: Environmental Protection Agency  
 HSDB: Hazardous Substances Data Bank  
 IARC: International Agency for Research on Cancer



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IBC: Intermediate Bulk Container  
 IECSC: Inventory of Existing Chemical Substances  
 IMDG: International Maritime Dangerous Goods  
 IOC: Inventory of Chemicals  
 IUCLID: International Uniform Chemical Information Database  
 KECl: Korean Existing Chemicals Inventory  
 KECL: Korean Existing Chemicals List  
 LC: Lethal Concentration  
 LD: Lethal Dose  
 MA: Massachusetts  
 MN: Minnesota  
 N/Ap: Not Applicable  
 N/Av: Not Available  
 NIOSH: National Institute of Occupational Safety and Health  
 NJ: New Jersey  
 NOEC: No observable effect concentration  
 NTP: National Toxicology Program  
 OECD: Organisation for Economic Co-operation and Development  
 OSHA: Occupational Safety and Health Administration  
 PA: Pennsylvania  
 PEL: Permissible exposure limit  
 PICCS: Philippine Inventory of Chemicals and Chemical Substances  
 RCRA: Resource Conservation and Recovery Act  
 RI: Rhode Island  
 RTECS: Registry of Toxic Effects of Chemical Substances  
 SARA: Superfund Amendments and Reauthorization Act  
 SDS: Safety Data Sheet / Material Safety Data Sheet  
 STEL: Short Term Exposure Limit  
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
 TLV: Threshold Limit Values  
 TSCA: Toxic Substance Control Act  
 TWA: Time Weighted Average  
 WHMIS: Workplace Hazardous Materials Identification System

- References** :
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for
  2. ECHA - European Chemical Agency
  3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, (Chempendium, HSDB and RTECs).
  4. Safety Data Sheets from manufacturer.
  5. US EPA Title III List of Lists
  6. California Proposition 65 List
  7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal

**Preparation Date (mm/dd/yyyy)**

: 07/14/2020

**Other special considerations for handling**

: Provide adequate information, instruction and training for operators.

<p><b><u>Prepared for:</u></b>          Beacon Adhesives          125 Macquesten Parkway South          Mount Vernon, NY 10550          Telephone: (914) 699 3400</p>	
<p><b><u>Prepared by:</u></b>          ICC The Compliance Center Inc.          Telephone: (888) 442-9628 (U.S.); (888) 977-4834 (Canada)  <a href="http://www.thecompliancecenter.com">http://www.thecompliancecenter.com</a></p>	

### DISCLAIMER

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Beacon

## **SAFETY DATA SHEET**

Adhesives and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Beacon Adhesives. expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

his Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Beacon Adhesives.

**END OF DOCUMENT**

## SAFETY DATA SHEET

## SECTION 1. IDENTIFICATION

## Product identifier used on the label

: **E645, Part 2**

Other means of identification : None assigned.

## Recommended use of the chemical and restrictions on use

: Resin component  
Recommended restrictions: None known.

Chemical family : Mixture

Name, address, and telephone number  
of the supplier:

## Beacon Adhesives

125 Macquesten Parkway South  
Mount Vernon, NY, USA  
10550

Supplier's Telephone # : (914) 699 3400

24 Hr. Emergency Tel # : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).

Name, address, and telephone number  
of the manufacturer:

Refer to supplier

## SECTION 2. HAZARDS IDENTIFICATION

## Classification of the chemical

White to yellowish liquid. Slight ethereal odour

Most important hazards :Flammable liquid Causes skin and eye irritation. May damage fertility or the unborn child. May cause an allergic skin reaction.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification :

Flammable Liquids - Category 3  
Skin Irritation - Category 2  
Serious eye damage/eye irritation - Category 2A  
Skin sensitization - Category 1A  
Reproductive Toxicity - Category 1B

## Label elements

Hazard pictogram(s)



Signal Word

DANGER!

Hazard statement(s)

Flammable liquid and vapour.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
May damage fertility or the unborn child.

## SAFETY DATA SHEET

### Precautionary statement(s)

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Keep container tightly closed.  
 Ground/Bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/lighting/equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Wash hands thoroughly after handling.  
 Avoid breathing mist or vapours.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/clothing and eye/face protection.

IF ON SKIN: Wash with plenty of soap and water.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 Wash contaminated clothing before reuse.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.  
 In case of fire: Use water fog, dry chemical, CO2 or 'alcohol' foam to extinguish.

Store locked up.  
 Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local regulation.

### Other hazards

Other hazards which do not result in classification: :  
 Burning produces obnoxious and toxic fumes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Epoxy resin	Proprietary	Proprietary	Proprietary
Glycol ethers	Proprietary	Proprietary	Proprietary

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

## SECTION 4. FIRST-AID MEASURES

### Description of first aid measures

- Ingestion* : Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
- Inhalation* : If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Call a POISON CENTER or doctor/physician.
- Skin contact* : Immediately flush with plenty of water, while removing contaminated clothing. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.
- Eye contact* : For eye contact, flush with running water for at least 15 minutes. If eye irritation persists: get medical advice/attention.

### Most important symptoms and effects, both acute and delayed

- : Causes skin irritation. May cause an allergic skin reaction (e.g. swelling, rash and eczema). Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May damage fertility or the unborn child if inhaled.

### Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically.

## SAFETY DATA SHEET

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing media

*Suitable extinguishing media*

: Carbon dioxide (CO<sub>2</sub>); Dry chemical; Alcohol resistant foam; Water fog

*Unsuitable extinguishing media*

: Do not use a solid water stream as it may scatter and spread fire.

#### Special hazards arising from the substance or mixture / Conditions of flammability

: Flammable liquid and vapour. Vapours may ignite explosively. Vapours are heavier than air and may spread along floors. Static discharge, impact, friction, and heat may ignite exposed chemical material.

Empty containers may contain hazardous residues.

#### Flammability classification (OSHA 29 CFR 1910.106)

: Flammable Liquids - Category 3

#### Hazardous combustion products

: Carbon dioxide and carbon monoxide.

#### Special protective equipment and precautions for firefighters

*Protective equipment for fire-fighters*

: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Do not enter without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective clothing (Bunker Gear) will not provide adequate protection. A full-body encapsulating chemical protective suit with positive pressure self-contained breathing apparatus (NIOSH approved or equivalent) may be necessary.

*Special fire-fighting procedures*

: Do not breathe fumes or vapours. Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

: All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

**Environmental precautions** : Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

#### Methods and material for containment and cleaning up

: Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools and equipment in the clean-up process. Avoid breathing mist or vapours. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contact the proper local authorities. Refer to Section 13 for disposal of contaminated material.

#### Special spill response procedures

: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802). EPA/CERCLA Reportable quantity (RQ): See section 15.

### SECTION 7. HANDLING AND STORAGE

#### Precautions for safe handling

## SAFETY DATA SHEET

: Wear protective gloves/clothing and eye/face protection. Use only in well-ventilated areas. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Contaminated work clothing must not be allowed out of the workplace. Keep container tightly closed. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep away from flames and hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharges. Ground all equipment during handling.

Persons with recurrent skin eczema or sensitization problems should be excluded from working with this product. Once a person is sensitized, no further exposure to the material that caused the sensitization should be permitted.

**Conditions for safe storage** : Keep container tightly closed. Store in cool/well-ventilated place. Store locked up. Keep cool. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking. Empty containers may contain hazardous residues.

**Incompatible materials** : Strong oxidizers (e.g. Chlorine, Peroxides, etc.).

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limits:</u>					
	<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
		<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Epoxy resin	N/Av	N/Av	N/Av	N/Av	
Glycol ethers	0.1 ppm (skin)	N/Av	25 ppm (80 mg/m <sup>3</sup> ) (skin)	N/Av	

#### Exposure controls

##### Ventilation and engineering measures

: Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use explosion-proof equipment. In case of insufficient ventilation wear suitable respiratory equipment.

**Respiratory protection** : If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Advice should be sought from respiratory protection specialists.

**Skin protection** : Wear protective gloves/clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

**Eye / face protection** : Wear eye/face protection. Wear safety glasses with side shields ( or goggles).

**Other protective equipment** : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

##### General hygiene considerations

: Avoid breathing fumes, mists or vapors. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not take contaminated clothing home. Handle in accordance with good industrial hygiene and safety practice.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : White to yellowish liquid.

**Odour** : Slight ethereal odour

**Odour threshold** : Not available.

**pH** : None.

**Melting Point/Freezing point** : Not available.

##### Initial boiling point and boiling range

: Not available.

## SAFETY DATA SHEET

**Flash point** : >23°C  
**Flashpoint (Method)** : Cleveland closed cup  
**Evaporation rate (BuAe = 1)** : Not available.  
**Flammability (solid, gas)** : Not applicable.  
**Lower flammable limit (% by vol.)**  
: Not available.  
**Upper flammable limit (% by vol.)**  
: Not available.  
**Oxidizing properties** : None.  
**Explosive properties** : Not explosive  
**Vapour pressure** : Not available.  
**Vapour density** : Not available.  
**Relative density / Specific gravity**  
: Not available.  
**Solubility in water** : Not available.  
**Other solubility(ies)** : Not available.  
**Partition coefficient: n-octanol/water or Coefficient of water/oil distribution**  
: Not available.  
**Auto-ignition temperature** : Not available.  
**Decomposition temperature** : No information available.  
**Viscosity** : Not available.  
**Volatiles (% by weight)** : No information available.  
**Volatile organic Compounds (VOC's)**  
: No information available.  
**Absolute pressure of container**  
: Not applicable.  
**Flame projection length** : Not applicable.  
**Other physical/chemical comments**  
: None known or reported by the manufacturer.

### SECTION 10. STABILITY AND REACTIVITY

**Reactivity** : Not normally reactive. May react with considerable heat release with some curing agents.  
**Chemical stability** : Stable under normal conditions.  
**Possibility of hazardous reactions**  
: Hazardous polymerization does not occur.  
**Conditions to avoid** : Open flames, sparks, high heat, direct sunlight, and close proximity to incompatible substances. Do not use in areas without adequate ventilation.  
**Incompatible materials** : Strong oxidizers.  
**Hazardous decomposition products**  
: None known, refer to hazardous combustion products in Section 5.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure:

**Routes of entry inhalation** : YES  
**Routes of entry skin & eye** : YES  
**Routes of entry Ingestion** : YES  
**Routes of exposure skin absorption**  
: YES

## SAFETY DATA SHEET

### Potential Health Effects:

#### Signs and symptoms of short-term (acute) exposure

##### *Sign and symptoms Inhalation*

- : Mild respiratory irritation, sneezing or coughing, possible headache, nausea or drowsiness.

##### *Sign and symptoms ingestion*

- : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

##### *Sign and symptoms skin*

- : Causes skin irritation. May cause redness and itching or burning sensation.

##### *Sign and symptoms eyes*

- : Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling and blurred vision.

#### Potential Chronic Health Effects

- : Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

#### Mutagenicity

- : Not expected to be mutagenic in humans.

#### Carcinogenicity

- : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

#### Reproductive effects & Teratogenicity

- : Reproductive Toxicity - Category 1B May damage fertility or the unborn child.

#### Sensitization to material

- : Not expected to be a skin or respiratory sensitizer.

#### Specific target organ effects

- : According to the classification criteria of U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015), this product is not expected to cause target organ toxicity through single or repeated exposures.

#### Medical conditions aggravated by overexposure

- : Pre-existing skin, eye and respiratory disorders.

#### Synergistic materials

- : No information available.

#### Toxicological data

- : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data. The calculated ATE values for this mixture are:  
ATE oral = 3296.29 mg/kg  
ATE dermal = 4814.81 mg/kg  
ATE inhalation (vapours) = 58.51 mg/L

<u>Chemical name</u>	<u>LC<sub>50</sub>(4hr)</u> <u>inh, rat</u>	<u>LD<sub>50</sub></u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Epoxy resin	N/Av	30 000 mg/kg	23 500 mg/kg
Glycol ethers	> 12.4, < 17.8 mg/L (vapour)	1000 - 1500 mg/kg (guinea pig; rabbits) 2460 mg/kg (rat)	1300 mg/kg

#### Other important toxicological hazards

- : None reported by the manufacturer.

### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

- : Contains material that may be harmful in the environment. Do not allow material to contaminate ground water system.  
See the following tables for the substance's ecotoxicity data.



## SAFETY DATA SHEET

### Ecotoxicity data:

<u>Ingredients</u>	CAS #	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Epoxy resin	Proprietary	3.1 mg/L (Fathead minnow)	N/Av	None.
Glycol ethers	Proprietary	> 10 000 mg/L (Bluegill sunfish)	1815 mg/L (30 days) (QSAR)	None.

<u>Ingredients</u>	CAS #	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Epoxy resin	Proprietary	1.4 mg/L (Daphnia magna)	0.3 mg/L (Read-across)	None.
Glycol ethers	Proprietary	27 000 mg/L (Daphnia magna)	> 500 mg/L	None.

<u>Ingredients</u>	CAS #	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Epoxy resin	Proprietary	9.4 mg/L/72hr (Green algae) (Read-across)	2.8 mg/L/72hr (Read-across)	None.
Glycol ethers	Proprietary	25 500 mg/L/72hr (Green algae)	N/Av	None.

### Persistence and degradability

: No data is available on the product itself.

### Bioaccumulation potential

: No information available.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Glycol ethers	- 0.77	N/Av
Epoxy resin	3.84	

**Mobility in soil** : The product itself has not been tested.

### Other Adverse Environmental effects

: None known.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Handling for Disposal

: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

### Methods of Disposal





: Dispose in accordance with all applicable federal, state, provincial and local regulations.

### RCRA

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

## SAFETY DATA SHEET

## SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	UN1866	RESIN SOLUTION	3	III	
<b>49CFR/DOT Additional information</b>	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to 49 CFR Section 173.150.				
TDG	UN1866	RESIN SOLUTION, flammable	3	III	
<b>TDG Additional information</b>	May be shipped as a Limited Quantity when transported in containers no larger than 5 L (1.3 gallons); in packages not exceeding 30 kg (66 pounds) gross mass.				
ICAO/IATA	UN1866	Resin solution	3	III	
<b>ICAO/IATA Additional information</b>	Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.				
IMDG	UN1866	RESIN SOLUTION flammable	3	III	
<b>IMDG Additional information</b>	Consult the IMDG regulations for exceptions.				

**Special precautions for user** : Appropriate advice on safety must accompany the package. Keep away from heat, sparks and open flame - No smoking.

**Environmental hazards** : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

: This information is not available.

## SECTION 15 - REGULATORY INFORMATION

**US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Epoxy resin	Proprietary	Yes	None.	None.	No	N/Ap
Glycol ethers	Proprietary	Yes	None.	None.	Yes	1%

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Flammable; Eye irritation; Skin sensitization; Skin irritation. Reproductive toxicity. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

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### US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Epoxy resin	Proprietary	No	N/Ap	No	No	Yes	No	No	No
Glycol ethers	Proprietary	No	Developmental; male	Yes	Yes	Yes	Yes	Yes	Yes

### Canadian Information:

Canadian Environmental Protection Act (CEPA): All ingredients are present on the DSL.

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

### International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Epoxy resin	Proprietary	Polymer	Present	Present	(7)-1279; (7)-1283	KE-24070	Present	May be used as a single component chemical under an appropriate group standard.
Glycol ethers	Proprietary	203-713-7	Present	Present	(7)-97; (2)-405	KE-23272	Present	HSR001159

## SECTION 16. OTHER INFORMATION

### Legend

- : ACGIH: American Conference of Governmental Industrial Hygienists
- AICS: Australian Inventory of Chemical Substances
- ATE: Acute Toxicity Estimate
- CA: California
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- CSA: Canadian Standards Association
- DOT: Department of Transportation
- ECHA: European Chemicals Agency
- ECOTOX: U.S. EPA Ecotoxicology Database
- EINECS: European Inventory of Existing Commercial chemical Substances
- ENCS: Existing and New Chemical Substances
- EPA: Environmental Protection Agency
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- IBC: Intermediate Bulk Container
- IECSC: Inventory of Existing Chemical Substances
- IMDG: International Maritime Dangerous Goods
- IOC: Inventory of Chemicals
- IUCLID: International Uniform Chemical Information Database
- KECI: Korean Existing Chemicals Inventory
- KECL: Korean Existing Chemicals List
- LC: Lethal Concentration
- LD: Lethal Dose
- MA: Massachusetts

## SAFETY DATA SHEET

MN: Minnesota  
 N/Ap: Not Applicable  
 N/Av: Not Available  
 NIOSH: National Institute of Occupational Safety and Health  
 NJ: New Jersey  
 NOEC: No observable effect concentration  
 NTP: National Toxicology Program  
 OECD: Organisation for Economic Co-operation and Development  
 OSHA: Occupational Safety and Health Administration  
 PA: Pennsylvania  
 PEL: Permissible exposure limit  
 PICCS: Philippine Inventory of Chemicals and Chemical Substances  
 RCRA: Resource Conservation and Recovery Act  
 RI: Rhode Island  
 RTECS: Registry of Toxic Effects of Chemical Substances  
 SARA: Superfund Amendments and Reauthorization Act  
 SDS: Safety Data Sheet / Material Safety Data Sheet  
 STEL: Short Term Exposure Limit  
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
 TLV: Threshold Limit Values  
 TSCA: Toxic Substance Control Act  
 TWA: Time Weighted Average  
 WHMIS: Workplace Hazardous Materials Identification System

- References** :
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for
  2. ECHA - European Chemical Agency
  3. Canadian Centre for Occupational Health and Safety, CCHInfoWeb databases, (Chempendium, HSDB and RTECs).
  4. Safety Data Sheets from manufacturer.
  5. US EPA Title III List of Lists
  6. California Proposition 65 List
  7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal

**Preparation Date (mm/dd/yyyy)**

: 07/14/2020

**Other special considerations for handling**

: Provide adequate information, instruction and training for operators.

<p><b><u>Prepared for:</u></b>          Beacon Adhesives          125 Macquesten Parkway South          Mount Vernon, NY 10550          Telephone: (914) 699 3400</p>	
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