

**Poly Fix® Part A**

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**SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION**

<b>1.1 Trade Name (as labeled):</b>	Poly Fix® Part A
Synonyms:	N/A
CAS No:	Mixture
<b>1.2 Product Use:</b>	Ultra Low Viscosity Polymer Concrete Repair Binder
<b>1.3 Company Name:</b>	<b>SpecChem</b>
Company Address:	1511 Baltimore Ave; Suite 600
Company Address Cont:	Kansas City, MO 64108
Business Phone:	(816) 968-5600
Website:	www.specchemllc.com
<b>1.4 Emergency Telephone Number:</b>	<b>Chemtrec: (800) 424-9300</b>
Date of Last Revision:	September 28, 2018
Date of Current Revision:	June 26, 2019

**SECTION 2 – HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:** This product is a clear to amber colored liquid with a petroleum distillate odor.

Health Hazards: May cause skin, eye, and respiratory system irritation. May be an aspiration hazard. Inhalation may cause drowsiness or dizziness

Flammability Hazards: This product is a non-flammable liquid.

Reactivity Hazards: None.

Environmental Hazards: The environmental effects of this product have not been investigated, however release may cause long term adverse environmental effects.

**US DOT Symbols:** Not Regulated



**EU and GHS Symbols:**

Signal Word: Danger

**GHS Ratings:**

Inhalation Toxicity	Acute Tox. 4	Gases>2500+<=5000ppm, Vapors>10+<=20mg/l, Dusts&mists>1+<=5mg/l
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation.
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days.
Respiratory sensitizer	1	Respiratory sensitizer.
Skin sensitizer	1	Skin sensitizer.
Carcinogen	2	Limited evidence of human or animal carcinogenicity.
Reproductive Toxicity	2	

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**GHS Hazards**

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H351 Suspected of causing cancer.
- H361d Suspected of damaging the unborn child.

**GHS Precautions**

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P281 Use personal protective equipment as required.
- P285 In case of inadequate ventilation wear respiratory protection.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P321 Specific treatment (see Section 4 of the SDS).
- P362 Take off contaminated clothing and wash before reuse.
- P363 Wash contaminated clothing before reuse.
- P302+P352 IF ON SKIN: Wash with soap and water.
- P304+P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
- P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
- P337+P313 Get medical advice/attention.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P405 Store locked up.
- P501 Dispose of contents/container according to Section 13 of the SDS.

**SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous Ingredients	WT%	CAS No.
4,4'-methylenediphenyl diisocyanate	50-70%	101-68-8
Benzene, 1,1'-methylenebis [isocyanato-,homopolymer]	10-30%	39310-05-9
Diphenylmethane-2,4'-diisocyanate	5-10%	5873-54-1

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2,2,4-trimethyl-1,3-pentanediol diisobutyrate	<40%	6846-50-0
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).		

**Note:** All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

**SECTION 4 – FIRST AID MEASURES**

Inhalation:	Remove to fresh air if effects occur. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Consult a physician or transport to a medical facility.
Eye Contact:	Immediately flush eyes with large quantities of water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.
Skin Contact:	Wash immediately and thoroughly with soap and flowing water. Remove contaminated clothing while washing. Seek medical attention if irritation persists. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water.
Ingestion:	If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.
Notes to Physician:	No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Cholinesterase inhibition has been noted in human exposure but is not of benefit in determining exposure and is not correlated with signs of exposure. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

**SECTION 5 – FIRE FIGHTING MEASURES**

Flash Point: 230° C (446° F)

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Flammable Properties: Product is not considered a fire hazard, but will burn if ignited.  
NFPA Flammability Class: III B (Combustible liquid).

Suitable Extinguishing Media: Carbon dioxide, dry chemical, water fog or fine spray. Alcohol resistant foams are preferred, general purpose synthetic foams or protein foams may function, but will not be as effective.

Unsuitable Extinguishing Media: Do not use direct water stream, as it may spread fire.

Unusual Fire and Explosion Hazards: Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

Products of Combustion: Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, ammonia, nitrogen oxides, isocyanates, hydrogen cyanide and other unidentified toxic and/or irritating compounds.

Fire Fighting: Stay upwind and keep people away. Isolate fire and deny unnecessary entry. Keep out of low areas where gases (fumes) can accumulate. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out. Contain fire water run-off if possible, as it may cause environmental damage. Review section 6 and section 12 of this SDS.

Protection of Firefighters: Wear positive pressure self-contained breathing apparatus (SCBA) and approved protective clothing (helmet, coat, trousers, boots and gloves). If contact is likely, use full chemical resistant fire fighting clothing with SCBA.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)**

Personal Precautions: Put on appropriate personal protective equipment (see section 8).

Environmental Precautions: Prevent spilled material from contact with soil, drains and sewers.

Methods for Containment: Contain by diking with sand, earth or other suitable material.

Methods for Clean-up: Absorb spill with an inert material, use non-sparking tools to place into labeled waste container for disposal.

**SECTION 7 - HANDLING AND STORAGE**

Handling: Wear appropriate personal protective equipment (see section 8). Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not ingest. Avoid prolonged or repeated contact with skin. May cause allergic skin reaction, persons with a history of skin sensitization should not be employed in any process in which this product is used. Wash thoroughly with soap and water after handling. Do not handle or store near flame, heat or strong oxidants. Keep away from sources of ignition and hot metal surfaces.

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Storage: Store original unopened containers in a sheltered area between 60°F and 80°F (15°C and 27°C) at atmospheric pressure. Do not store in direct sunlight. Keep containers closed when not in use.

**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 Exposure Parameters:**

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
4,4'-methylenediphenyl diisocyanate 101-68-8	Not Established	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	NIOSH: 0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.05 mg/m <sup>3</sup> TWA 0.020 ppm Ceiling (10 min); 0.2 mg/m <sup>3</sup> Ceiling (10 min)

Engineering Controls: General mechanical ventilation is sufficient for most conditions. Control airborne levels below the exposure guidelines, if established.  
Local exhaust ventilation may be necessary for some operations.  
General Hygiene Considerations: Wash thoroughly after handling and before eating, drinking or smoking.  
Eye/face Protection: Use chemical safety glasses, splash-proof eye goggles or goggles with full faceshield.  
Skin Protection: Use neoprene, nitrile/butadiene rubber or other impermeable chemical resistant gloves to prevent skin irritation. If potential for skin contact is present, wear impervious, long-sleeved, body covering clothing and rubber boots.  
Respiratory Protection: If exposure may or does exceed occupational exposure limits, respiratory irritation is experienced, or during spray application, use a properly fitted MSHA/NIOSH approved respirator fitted with organic vapor cartridges and particulate pre-filters. If the respirator is the sole means of protection, use a full-face supplied air respirator. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use an approved positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). If sanding or grinding on cured material, use above respirator fitted with HEPA filters or a dust mask.  
Contaminated Gear: Remove contaminated clothing and shoes while washing. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on Basic Physical and Chemical Properties:**

**Appearance (Physical State and Color):** Clear to pale yellow

**Odor:** Mild

**Odor Threshold:** No data available

**pH:** No data available

**Melting/Freezing Point:** No data available

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**Boiling Point:** Not data available  
**Flash Point:** Flash Point: 230°C (446°F)  
**Evaporation Rate:** No data available  
**Flammability (Solid; Gas):** No data available  
**Upper/Lower Flammability or Explosion Limits:** No data available  
**Vapor Pressure (mm Hg @ 20°C (68° F):** No data available  
**Vapor Density:** No data available  
**Relative Density:** No data available  
**Specific Gravity:** 1.0 – 1.2  
**Solubility in Water:** No data available  
**Weight per Gallon:** No data available  
**Partition Coefficient (n-octanol/water):** No data available  
**Auto-Ignition Temperature:** No data available  
**Decomposition Temperature:** No data available  
**Viscosity:** No data available  
**9.2 Other Information:** No data available

**SECTION 10 – STABILITY AND REACTIVITY**

**Chemical Stability:** Stable under recommended storage conditions (see Section 7).  
**Conditions to Avoid:** Avoid temperatures above 450 deg F (230 deg C), potential violent decomposition may occur. Avoid contact with water, as material reacts with water, releasing carbon dioxide which can cause rapid pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction.

**Incompatible Materials:** Strong acids, bases, or oxidizing agents. Avoid unintended contact with amines, alcohols, water, moist air and metals such as aluminum, brass, copper, tin, zinc and galvanized metals.

**Products of Combustion:** Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, ammonia, nitrogen oxides, isocyanates, hydrogen cyanide and other unidentified toxic and/or irritating compounds.

Hazardous polymerization will not occur.

**SECTION 11 – TOXICOLOGY INFORMATION**

Information on likely routes of : No data is available on the product itself exposure

**Acute toxicity**  
**Components:**

**Suspected Cancer Agent:** Ingredients within this product are found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be cancer-causing agents by these agencies.  
**Irritancy:** Skin, eye, respiratory irritant.  
**Sensitization to the Product:** This product is not expected to cause skin sensitization.

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Germ Cell Mutagenicity: This product contains ingredients that are suspected to be a germ cell mutagenic.

Reproductive Toxicity: This product is not expected to be a human reproductive toxicant.

**Components:**

4,4'-Methylenediphenyl diisocyanate:

Acute oral toxicityComponents : LD50 (Rat, male): > 10,000 mg/kg  
method: OECD Test Guideline 401

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:

Acute oral toxicityComponents : LD50 (Rat, female): > 5,000 mg/kg  
Method: OECD Test Guideline 425  
Assessment: The substance of mixture has no acute oral toxicity

Acute inhalation toxicity - : Acute toxicity estimate: 1.49 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method:

2,2,4-trimethyl-1,3-pentanediol diisobutyrate:

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 0.12 mg/l Exposure time: 6 h

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2,000 mg/kg

**Components:**

4,4'-Methylenediphenyl diisocyanate:

Acute dermal toxicity : LD50 (Rabbit, male and female): > 9,400 mg/kg  
Method: OECD Test Guideline 402

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:

Acute dermal toxicity : LD50 (Rabbit, male and female): > 9,400 mg/kg  
Method: OECD Test Guideline 402

Diphenylmethane-2,4' – diisocyanate:

Acute dermal toxicity : LD50 (Rabbit, male and female): > 9,400 mg/kg  
Metod: OECD Test Guideline 402

Acute toxicity (other routes of administration) : No data available

**Skin corrosion/irritation**
**Components:**

4,4'-Methylenediphenyl diisocyanate:

Species: Rabbit

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Method: OECD test Guideline 404  
Result: Irritating to skin

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Species: Rabbit  
Result: Skin irritation  
GLP: yes

Diphenylmethane-2,4' – diisocyanate:  
Species: Rabbit  
Assessment: Irritant  
Method: OECD Test Guideline 404  
Result: Irritating to skin.

2,2,4-trimethyl-1,3-pentanediol diisobutyrate:  
Species : Guinea pig  
Exposure time : 24 h  
Result : slight skin irritation

**Serious eye damage/eye irritation**

**Components:**

4,4'-Methylenediphenyl diisocyanate:  
Species: Rabbit  
Result: Mild eye irritation

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Species: Rabbit  
Result: Mild eye irritation  
Method: OECD Test Guideline 405  
GLP: yes

Diphenylmethane-2,4' – diisocyanate:  
Species: Humans  
Result: Irritation to eyes, reversing within 7 days  
Assessment: Mild eye irritant  
Method: OECD Test Guideline 405  
Remarks: Mild eye irritation

**Respiratory or skin sensitization**

**Components:**

4,4'-Methylenediphenyl diisocyanate:  
Exposure routes: Skin  
Species: Mouse  
Method: OECD Test Guideline 429  
Result: May cause sensitisation by skin contact



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Exposure routes: Respiratory Tract  
Species: Guinea pig  
Result: May cause sensitisation by inhalation

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Exposure routes: Skin  
Species: Guinea pig  
Method: OECD Test Guideline 406  
Result: May cause sensitisation by skin contact

Exposure routes: Respiratory Tract  
Species: Guinea pig  
Result: May cause sensitisation by inhalation.

Diphenylmethane-2,4' – diisocyanate:  
Exposure routes: Skin  
Species: Mouse  
Assessment: May cause sensitisation by skin contact.  
Result: Causes sensitisation.

Exposure routes: Respiratory Tract  
Species: Guinea pig  
Assessment: May cause sensitisation by inhalation  
Result: Causes sensitisation.

2,2,4-trimethyl-1,3-pentanediol diisobutyrate:  
Test Type: Skin Sensitization  
Species: Guinea pig  
Result: non-sensitizing

**Components:**

4,4'-Methylenediphenyl diisocyanate:  
Assessment: May cause sensitisation by inhalation and skin contact

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Assessment: May cause sensitisation by inhalation and skin contact.

Diphenylmethane-2,4' – diisocyanate:  
Assessment: Mild eye irritation

**Germ cell mutagenicity**

**Components:**

4,4'-Methylenediphenyl diisocyanate:  
Genotoxicity in vitro : Concentration: 200 ug/plate  
Metabolic activation: with and without metabolic activation  
Method: Directive 67/548/EEC, Annex, B. 13/14  
Result: negative

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Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Genotoxicity in vitro : Concentration: ca 50 ug/plate  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

Diphenylmethane-2,4' – diisocyanate:  
Genotoxicity in vitro : Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

**Components:**

4,4'-Methylenediphenyl diisocyanate:  
Genotoxicity in vivo : Application Route: inhalation  
Exposure time: 3 Weeks  
Dose: 118 mg/m3  
Method: OECD Test Guideline 474  
Result: negative

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Genotoxicity in vitro : Application Route: inhalation  
Exposure time: 3 Weeks  
Dose: 118 mg/m3  
Method: OECD Test Guideline 474  
Result: negative

Diphenylmethane-2,4' – diisocyanate:  
Genotoxicity in vitro : Application Route: inhalation  
Exposure time: 3 Weeks  
Dose: 118 mg/m3  
Method: OECD Test Guideline 474  
Result: negative

**Components:**

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Germ cell mutagenicity- Assessment : Arimal testing did not show any mutagenic effects.

Germ cell mutagenicity- Assessment : No data available

**Components:**

2,2,4-trimethyl-1,3-pentanediol diisobutyrate  
Germ cell mutagenicity : Not classified based on available information

**Carcinogenicity**

**Components:**

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4,4'-Methylenediphenyl diisocyanate:

Species: Rat, (male and female)

Application Route: Inhalation

Exposure time: 24 mouth(s)

Dose: 1 mg/m<sup>3</sup>

Frequency of Treatment: 5 daily

Method: OECD Test Guideline 453

Result: positive

Target Organs: Lungs

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:

Species: Rat, (male and female)

Application Route: Inhalation

Exposure time: 24 mouth(s)

Dose: 1 mg/m<sup>3</sup>

Frequency of Treatment: 5 daily

Method: OECD Test Guideline 453

Result: negative

Diphenylmethane-2,4' – diisocyanate:

Species: Rat, (male and female)

Application Route: Inhalation

Exposure time: 24 mouth(s)

Dose: 1 mg/m<sup>3</sup>

Frequency of Treatment: 5 daily

Method: OECD Test Guideline 453

Result: positive

Target Organs: Lungs

Carcinogenicity- Assessment : No Data Available

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable. Possible or confirmed human carcinogen by IARC.

ACGIH No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

**Reproductive toxicity**

**Components:**

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Diphenylmethane-2,4' – diisocyanate:

Effect on fertility : Species: Rat, female  
Application Route: Inhalation  
Method: OECD Test Guideline 414  
Result: Animal testing did not show any effects on fertility

Species: Rat, male and female  
Application Route: Inhalation  
Method: OECD Test Guideline 414  
Result Animal testing did not show any effects on fertility

**Components:**

4,4'-Methylenediphenyl diisocyanate:

Effects on fertility : Species: Rat, female  
development : Application Route: Inhalation  
General Toxicity Maternal: No observed adverse effect level: 4  
Mg/m<sup>3</sup>  
Method: OECD Test Guideline 414  
Result: No teratogenic effects

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:

Species: Rat, female  
Application Rout: Inhalation  
General Toxicity Maternal: No observed adverse effect level: 4  
Mg/m<sup>3</sup>  
Method: OECD Test Guideline 414  
Result: No teratogenic effects

**Components:**

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:

Reproductive toxicity - : No evidence of adverse effects on sexual function and fertility,  
or on development, based on animal experiments.

2,2,4-trimethyl-1,3-pentanediol diisobutyrate:

Effects on fetal development: Species: Rabbit  
Application Route: Oral  
Developmental Toxicity: NOAEL: 300 mg/kg body weight  
Reproductive toxicity - Assessment: Some evidence of  
adverse effects on development, based on animal  
experiments.

**STOT – single exposure**

**Components:**

4,4'-Methylenediphenyl diisocyanate:

Exposure routes: inhalation  
Target Organs: Respiratory Tract  
Assessment: May cause respiratory irritation.

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Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Exposure routes: inhalation (dust/mist/fume)  
Target Organs: Respiratory Tract  
Assessment: May cause respiratory irritation.

Diphenylmethane-2,4' – diisocyanate:  
Exposure routes: Inhalation  
Target Organs: Respiratory system  
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

**STOT – single exposure**

No data available

**Repeated dose toxicity**

**Components:**

4,4'-Methylenediphenyl diisocyanate:  
Species: Rat, male and female  
: 0.2 mg/m<sup>3</sup>  
Exposure time: 2 yr  
Number of exposures: 5 d  
Method: OECD Test Guideline 453

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Species: Rat, male and female  
: 0.2 mg/m<sup>3</sup>  
Exposure time: 2 yr  
Number of exposures: 5 d  
Method: OECD Test Guideline 453

Diphenylmethane-2,4' – diisocyanate:  
Species: Rat, male and female  
: 0.2 mg/m<sup>3</sup>  
Exposure time: 2 yr  
Number of exposures: 5 d  
Method: OECD Test Guideline 453

**Components:**

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:  
Repeated dose toxicity - : No adverse effect has been observed in chronic toxicity tests.  
Assessment

Diphenylmethane-2,4' – diisocyanate:  
Repeated dose toxicity - : Mild eye irritation  
Assessment

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**Aspiration toxicity**

No data available

**Experience with human exposure**

General Information: No data available

Inhalation: No data available

Skin contact: No data available

Eye contact: No data available

Ingestion: No data available

**Toxicology, Metabolism, Distribution**

No data available

**Neurological effects**

No data available

**Further information**

**Product:**

Remarks: No data available

**SECTION 12 – ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Components:**

2,2,4-trimethyl-1,3-pentanediol diisobutyrate:

Toxicity to fish : NOEC (Fish):>= 6 mg/l  
 Exposure time: 96 h  
 Remarks: (limit of solubility in fresh water)

4,4'-Methylenediphenyl diisocyanate:

Toxicity to fish : LC50 (Brachydanio reio (zebrafish)): > 1,000 mg/l  
 Exposure time: 96 h  
 Test Type: static test  
 Method: OECD Test Guideline 202

Benzene 1,1'-methylenedis[isocyanato-, homopolymer:

Toxicity to fish : LC50 (Brachydanio reio (zebrafish)): > 1,000 mg/l  
 Exposure time: 96 h  
 Test Type: static test  
 Test substance: Fresh water  
 Method: OECD Test Guideline 202

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2,2,4-trimethyl-1,3-pentanediol diisobutyrate:

Toxicity to daphnia and other aquatic invertebrates : NOEC (Daphnia): >- 1.46 mg/l  
 Exposure time: 48 h  
 Remarks: (limit of solubility in fresh water)

Diphenylmethane-2,4' – diisocyanate:

Toxicity to daphnia and other aquatic invertebrates : LC50 (Brachydanio reio (zebrafish)): > 1,000 mg/l  
 Exposure time: 96 h  
 Test Type: static test  
 Test substance: Fresh water  
 Method: OECD Test Guideline 202

**Components:**

2,2,4-trimethyl-1,3-pentanediol diisobutyrate:

Toxicity to algae: EC50 (Chlorella pyrenoidosa): > 7.49  
 Exposure time: 72 h  
 Remarks: (limit of solubility in fresh water)

Benzene 1,1'-methylenedis[isocyanato-, homopolymer

Toxicity to algae: EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 1,640 mg/l  
 Exposure Time: 72 h  
 Test Type: static test  
 Test substance: Fresh water  
 Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity): no data available

**Components:**

Benzene 1,1'-methylenedis[isocyanato-, homopolymer

Toxicity to fish (Chronic:GLP:no toxicity)

**Components:**

2,2,4-trimethyl-1,3-pentanediol diisobutyrate:

Toxicity to daphnia and other Aquatic invertebrates (Chronic toxicity) : EC50 (Daphnia): >1.3 mg/l  
 Exposure time: 21 d  
 Remarks: (limit of solubility in fresh water)

4,4'-Methylenediphenyl diisocyanate:

Toxicity to daphnia and other Aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): >= 10 mg/l  
 Exposure time: 21 d  
 Test Type: semi-static test  
 Test substance: Fresh water  
 Method: OECD Test Guideline 211

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Benzene 1,1'-methylenedis[isocyanato-, homopolymer

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): >= 10 mg/l  
 Aquatic invertebrates : Exposure time: 21 d  
 (Chronic toxicity) : Test Type: semi-static test  
 Test substance: Fresh water  
 Method: OECD Test Guideline 211

Diphenylmethane-2,4' – diisocyanate:

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): >= 10 mg/l  
 Aquatic invertebrates : Exposure time: 21 d  
 (Chronic toxicity) : Test Type: semi-static test  
 Test substance: Fresh water  
 Method: OECD Test Guideline 211

M-Factor (Acute aquatic toxicity): no data available

**Components:**

Benzene 1,1'-methylenedis[isocyanato-, homopolymer

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l  
 Exposure time: 3 h  
 Test Type: static test  
 Test substance: Fresh water  
 Method: OECD Test Guideline 209

Diphenylmethane-2,4' – diisocyanate:

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l  
 Exposure time: 3 h  
 Test Type: static test  
 Test substance: Fresh water  
 Method: OECD Test Guideline 209

**Components:**

4,4'-Methylenediphenyl diisocyanate:

Toxicity to soil dwelling : NOEC (Eisenia fetida (earthworms)): >= 1,000 mg/kg  
 organisms : Exposure time: 336 h  
 Method: OECD Test Guideline 207

Benzene 1,1'-methylenedis[isocyanato-, homopolymer

Toxicity to soil dwelling : EC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg  
 organisms : Exposure time: 336 h  
 Method: OECD Test Guideline 207

Diphenylmethane-2,4' – diisocyanate:

Toxicity to soil dwelling : NOEC (Eisenia fetida (earthworms)): >= 1,000 mg/kg  
 organisms : Exposure time: 336 h



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Method: OECD Test Guideline 207

Plant Toxicity	:	No data available
Sediment toxicity	:	No data available
Toxicity to terrestrial organisms	:	No data available
Ecotoxicology Assessment Acute aquatic toxicity	:	No data available
Chronic aquatic toxicity	:	No data available
Toxicity Data on Soil	:	No data available
Other organisms relevant to the environment	:	No data available

**Persistence and degradability**

**Components:**

4,4'-Methylenediphenyl diisocyanate:

Biodegradability	:	Inoculum: Domestic sewage Concentration: 30 mg/l Result: Not biodegradable Biodegradation: 0% Exposure time: 28 d Method: Inherent Biodegradability:Modified MITI Test (II)
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Benzene 1,1'-methylenedis[isocyanato-, homopolymer

Biodegradability	:	Inoculum: Domestic sewage Concentration: 30 mg/l Result: Not biodegradable Biodegradation: 0% Exposure time: 28 d Method: Inherent Biodegradability:Modified MITI Test (II)
------------------	---	--

Diphenylmethane-2,4' – diisocyanate

Biodegradability	:	Inoculum: Domestic sewage Concentration: 30 mg/l Result: Not biodegradable Biodegradation 0%
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ThOD: 2.40 g/g

Exposure time: 28 d  
 Method: Inherent Biodegradability: Modified MITI Test (II)  
 2,2,4-trimethyl-1,3-pentanediol diisobutyrate:  
 Biodegradability: Biodegradation: 70.73 %  
 Exposure time: 28 d  
 Method: Ready Biodegradability: CO2 Evolution Test

Biochemical Oxygen Demand (BOD) : No data available

Chemical Oxygen Demand (COD) : No data available

BOD/COD : No data available

Dissolved organic carbon (DOC) : No data available

Physico-chemical removability : No data available

**Components:**

4,4'-Methylenediphenyl diisocyanate:  
 Stability in water : Degradation half life (DT50): 20 hrs (25 °C)  
 Method: No information available  
 Remarks: Fresh water

Photodegradation : No data available

Impact on Sewage Treatment : No data available

**Bioaccumulative potential**

**Components:**

4,4'-Methylenediphenyl diisocyanate:  
 Bioaccumulation : Species: Cyprinus carpio (Carp)  
 Bioconcentration factor (BCF): 200  
 Remarks: Bioaccumulation is unlikely

Benzene 1,1'-methylenedis[isocyanato-, homopolymer  
 Bioaccumulation : Species: Cyprinus carpio (Carp)  
 Bioconcentration factor (BCF): 200  
 Remarks: Bioaccumulation is unlikely  
 2,2,4-trimethyl-1,3-pentanediol diisobutyrate:

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Distribution among environmental compartments: log Koc: 2.69 - 3.6; Method: QSAR model

Diphenylmethane-2,4' – diisocyanate  
Bioaccumulation :

Species: Cyprinus carpio (Carp)  
Bioconcentration factor (BCF): 200  
Remarks: Bioaccumulation is unlikely  
2,2,4-trimethyl-1,3-pentanediol diisobutyrate:  
Bioaccumulation: Species: Fish  
Bioconcentration factor (BCF): 1.95  
Species: Fish  
Bioconcentration factor (BCF): 183 - 194

**Components:**

4,4'-Methylenediphenyl diisocyanate:  
Partition coefficient: n-  
octanol/water :

log Pow: 4.51 (20 °C)  
pH: 7  
Method: OECD Test Guideline 117

Benzene 1,1'-methylenedis[isocyanato-, homopolymer

Partition coefficient: n-  
octanol/water :

log Pow: 8.56 (20 °C)

Diphenylmethane-2,4' – diisocyanate

Partition coefficient: n-  
octanol/water :

log Pow: 4.51 (20 °C)  
pH: 7  
Method: OECD Test Guideline 117

**Mobility in soil**

Mobility :

No data available

Distribution among  
Environmental compartments :

No data available

Stability in soil :

2,2,4-trimethyl-1,3-pentanediol diisobutyrate:  
Distribution among environmental compartments: log  
Koc: 2.69 - 3.6; Method: QSAR model

**Other adverse effects**

Environmental fate and pathways :

No data available

Results of PBT and vPvB  
assessment :

No data available

Endocrine disrupting potential :

No data available

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Adsorbed organic bound halogens (AOX)	:	No data available
<b>Hazardous to the ozone layer</b> Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone – CAA Section 602 Class I Substances Remarks: This product neither contains, nor was Manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B)
Additional ecological Information – Product	:	No data available
Global warming potential (GWP) ppppp	:	No data available

**SECTION 13 – DISPOSAL CONSIDERATIONS**

Waste Disposal Methods: Dispose of in accordance with federal, state and local regulations. The preferred method for disposal of uncontaminated product is by recycling, reclaiming, incineration or other thermal destruction device using a licensed and permitted waste disposal contractor.

**SECTION 14 - TRANSPORTATION INFORMATION**

<b>14.1 U.S. Department of Transportation (DOT) Shipping Regulations:</b>	
<i>This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.</i>	
<b>UN Identification Number:</b>	NA 3082
<b>Proper Shipping Name:</b>	OTHER REGULATED SUBSTANCES, LIQUID, N.O.S. (Methylene Diphenyl Diisocyanate)
<b>Hazard Class Number and Description:</b>	Class 9 - Miscellaneous Hazardous Materials
<b>Packing Group:</b>	III
<b>DOT Label(s) Required:</b>	Miscellaneous Hazardous Materials
<b>North American Emergency Response Guidebook Number:</b>	None
<b>14.2 Environmental Hazards:</b>	
<b>Marine Pollutant:</b>	no
<b>14.3 Special Precaution for User:</b>	
None	
<b>14.4 International Air Transport Association Shipping Information (IATA):</b>	
Not regulated as dangerous goods	
<b>14.5 International Maritime Organization Shipping Information (IMO):</b>	
UN Identification Number: Not regulated as dangerous goods	

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<b>Proper Shipping Name:</b>	None
<b>Hazard Class Number and Description:</b>	None
<b>Packing Group:</b>	None
<b>EMS-No:</b>	None

**SECTION 15 – REGULATORY INFORMATION**

USA Federal: This SDS has been prepared in compliance with the Occupational Safety and Health Act (OSHA)

Hazard Communication Standard (29 CFR 1910.1200). This product is considered to be a hazardous chemical under that standard. The specific chemical identity and/or exact percentage of any proprietary ingredient(s) may be withheld as a trade secret, pursuant to the standard.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): To the best of our knowledge, this product contains the following chemicals which are known to the State of California to cause cancer or reproductive toxicity at levels which require warning under this statute:

- None

Massachusetts Right to Know: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

26447-40-5 Diphenylmethane Diisocyanate (MDI) Mixed Isomers < 70 %

101-68-8 4,4'-Diphenylmethane Diisocyanate (MDI) 50 to 70 %

New Jersey Right to Know: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

26447-40-5 Diphenylmethane Diisocyanate (MDI) Mixed Isomers < 70 %

Pennsylvania Right to Know: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

101-68-8 4,4'-Diphenylmethane Diisocyanate (MDI) 50 to 70 %

USA Resource Conservation and Recovery Act (40 CFR 261): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

- None

USA Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) - section 302 Extremely Hazardous Substances Threshold Planning Quantities (TPQs): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

- None

USA Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) - section 302 Hazardous Substances Reportable Quantities (RQs): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

101-68-8 4,4'-Diphenylmethane Diisocyanate (MDI) 50 to 70 %

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USA Toxic Substances Control Act (TSCA) - section 12(b): To the best of our knowledge, this product contains the following chemicals above the de minimus concentration(s) which requires notification to the Environmental Protection Agency (EPA) per 40 CFR 707, subpart D, if any person intends to export:  
 - None

<b>Country</b>	<b>Regulation</b>	<b>All Components Listed</b>
Australia	Australian inventory of Chemical Substances (AICS)	Yes
Canada	Canada Domestic Substance List	Yes
Canada	Canada Non-Domestic Substance List (NDSL)	No
China	China Inventory of Existing Chemical Substances	Yes
EU	EU REACH List of Registered Intermediates	No
EU	EU REACH List of Pre-Registered Substances	No
EU	EU REACH List of Registered Substances	No
Japan	Japanese Existing and New Chemical Substance List	Yes
South Korea	South Korea Existing Chemicals Inventory	Yes
Philippines	Philippines Inventory of Chemicals and Chemical	No
USA	USA TSCA Inventory List Section 8(b)	Yes

**SECTION 16 – OTHER INFORMATION**

Date of Printing: June 26, 2019

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. SpecChem assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, SpecChem assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

**END OF SDS SHEET+**

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**SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION**

<b>1.1 Trade Name (as labeled):</b>	Poly Fix® Part B
Synonyms:	N/A
<b>1.2 Product Use:</b>	Polyurea Repair Product
<b>1.3 Company Name:</b>	<b>SpecChem</b>
Company Address:	1511 Baltimore Ave; Suite 600
Company Address Cont:	Kansas City, MO 64108
Business Phone:	(816) 968-5600
Website:	www.specchemllc.com
<b>1.4 Emergency Telephone Number:</b>	<b>Chemtrec: (800) 424-9300</b>
Date of Last Revision:	September 28, 2018
Date of Current Revision:	June 27, 2019

**SECTION 2 – HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:** This product is a clear to amber colored liquid with a petroleum distillate odor.

**Health Hazards:** May cause skin, eye, and respiratory system irritation. May be an aspiration hazard. Inhalation may cause drowsiness or dizziness

**Flammability Hazards:** This product is a non-flammable liquid.

**Reactivity Hazards:** None.

**Environmental Hazards:** The environmental effects of this product have not been investigated, however release may cause long term adverse environmental effects.

**US DOT Symbols:** Not Reguated



**EU and GHS Symbols:**

Signal Word: Danger

**2.1 EU Labeling and Classification:**

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

**EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:**
**Index Number:**

500-033-5 is listed in Annex I 603-074-00-8

265-199-0 is listed in Annex I 649-356-00-4

Substances not listed either individually or in group entries must be self classified.

**Components Contributing to Classification:** Bisphenol A Diglycidyl Ether Resin

**2.2 Label Elements:**

**GHS Hazard Classifications:** Skin Irritation Category 2  
 Skin Sensitization Category 1

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**Hazard Statements:**

Eye Irritant Category 2  
Germ Cell Mutagenicity Category 2  
Chronic Aquatic Toxicity Category 2  
Flammable Liquid Category 3  
Carcinogenicity Category 1B  
STOT – SE Category 3 (Respiratory System,  
Central Nervous System)  
Aspiration Toxicity Category 1  
Reproductive Toxicity Category 2  
H315 Causes skin irritation  
H317 May cause an allergic skin reaction  
H319 Causes serious eye irritation  
H341 Suspected of causing genetic defects  
H411 Toxic to aquatic life with long lasting  
effects  
H350 May cause cancer  
H335 May cause respiratory irritation  
H336 May cause drowsiness or dizziness  
H304 May be fatal if swallowed and enters  
airways  
H361d Suspect of damaging the unborn child

**Precautionary Statements:**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions  
have been read and understood.  
P210 Keep away from heat/sparks/open  
flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/Bond container and receiving  
equipment.  
P241 Use explosion-proof  
electrical/ventilating/lighting equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against  
static discharge.  
P261 Avoid breathing  
dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated  
area.  
P272 Contaminated clothing should not be  
allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/eye  
protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of  
water.  
P305+P351+P338 IF IN EYES: Rinse  
cautiously with water for several minutes.

**Response Statements:**



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Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P337+P311 If eye irritation persists: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P370+P378 In case of fire: Use dry sand, dry chemical or alcohol resistant foam for extinction.  
 P391 Collect spillage.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Storage Statements:**  
**Disposal Statements:**

**2.3 Health Hazards or Risks From Exposure:**

**Symptoms of Overexposure by Route of Exposure:**

The most significant routes of overexposure for this product are by contact with skin or eyes. The symptoms of overexposure are described in the following paragraphs.

**Acute:**

Inhalation: May cause respiratory tract irritation. May cause headaches, drowsiness, or dizziness.  
 Skin Contact: May cause moderate irritation to skin. Repeated exposure may cause skin dryness or cracking.  
 Eye Contact: Vapours and direct contact to the eyes may be irritating.  
 Ingestion: May cause lung damage if aspirated.

**Chronic:** Repeated exposure may cause skin dryness or cracking..

**Target Organs:**

Acute: Skin, Eyes, Respiratory System, Central Nervous System  
 Chronic: Skin.

**SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous Ingredients	WT%	CAS No.	EINECS No.	Hazard Classification
Proprietary component A	<50%	NA	NA	Eye Irrit. 2A

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Bisphenol A Diglycidyl Ether Resin	<1%	25068-38-6	500-033-5	Flam. Liq. 3; Skin Irrit. 2; Carc. 1B, Muta. 1B; STOT SE 3; ASP. Tox. 1, Aquatic Chronic 2
2,2,4-trimethyl-1,3-pentaned diisobutyrate	>%40	229-934-9	6846-50-0	Rep Tox. 2

Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers). Specific chemical identities and exact percentages may have been withheld as a trade secret of CBI in compliance with 29 CFR 1910.1200 (i).

**Note:** All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

**SECTION 4 – FIRST AID MEASURES**
**4.1 Description of First Aid Measures:**

- Eye Contact:** If product enters the eyes, flush with plenty of water or eye wash solution for several minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.
- Skin Contact:** Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.
- Inhalation:** If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.
- Ingestion:** If product is swallowed, call physician or poison center immediately. If professional advice is not available, do not induce vomiting. Never induce vomiting or give dilutents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

**Medical Conditions Generally Aggravated**

**By Exposure:** Pre-existing skin, respiratory system or eye problems may be aggravated by prolonged contact.

**4.2 Symptoms and Effects Both Acute and Delayed:** Exposure to skin and eyes may cause irritation.

**4.3 Recommendations to Physicians:** Treat symptoms and eliminate overexposure.

**SECTION 5 – FIRE FIGHTING MEASURES**
**5.1 Fire Extinguishing Materials:**

Use the following fire extinguishing materials:

- Water Spray:** Yes
- Foam:** Yes
- Halon:** Yes
- Carbon Dioxide:** Yes

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**Dry Chemical:** Yes  
**Other:** Any "C" Class

**5.2 Unusual Fire and Explosion Hazards:**

**Irritating and toxic fumes may be produced at high temperatures. Use of water may result if the formation of a toxic aqueous solution. Do not allow run-off from fire fighting to enter drains or water courses.**

Explosive Sensitivity to Mechanical Impact: No  
Explosive Sensitivity to Static Discharge: No

**5.3 Special Fire-Fighting Procedures:**

- Incipient fire responders should wear eye protection.
- Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment.
- Isolate materials not yet involved in the fire and protect personnel.
- Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray.
- If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)**

**6.1 Personal Precautions, Protective Equipment and Emergency Procedures:**

Use cautious judgment when cleaning up spill. Wear suitable protective clothing, gloves, and eye/face protection.

**6.2 Environmental Precautions:**

Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

**6.3 Spill and Leak Response:**

**Small Spills:**

- Collect material via broom or mop. Place in tightly sealed containers for proper disposal.
- Approach spill areas with caution.
- If liquid was introduced, create a dike or trench to contain material.
- Soak up with absorbent material such as clay, sand or other suitable non-reactive material.

**Large Spills:**

- Place in leak-proof containers. Seal tightly for proper disposal.
- Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

**SECTION 7 - HANDLING AND STORAGE**

**7.1 Precautions for Safe Handling:**

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To prevent eye contact under the foreseeable conditions of use, wear appropriate safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Do not handle or store near heat, sparks, or flame.

**7.2 Storage and Handling Practices:**

Keep away from incompatible materials. Keep container closed when not in use and store in well ventilated area.

**7.3 Specific Uses:**

Epoxy Sealer.

**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 Exposure Parameters:**

Ingredients	CAS No.	OSHA PEL	NIOSH PEL
Proprietary component A	NA	None Established	None Established
Bisphenol A Diglycidyl Ether Resin	25068-38-6	Not Listed	Not Listed

**8.2 Exposure Controls:**

**Ventilation and Engineering Controls:**

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

*The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132), or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.*

**Respiratory Protection:**

Not required for properly ventilated areas. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

**Eye Protection:**

Safety glasses or goggles are required. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

**Hand Protection:**

Chemical resistant gloves are required to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374,

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**Body Protection:**

the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards. Use body protect appropriate to task being performed.  
If necessary, refer to appropriate Standards of Canada, or appropriate standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on Basic Physical and Chemical Properties:**

**Appearance (Physical State and Color):** Black

**Odor:** Petroleum distillate odor

**Odor Threshold:** No data available

**pH:** No data available

**Melting/Freezing Point:** No data available

**Boiling Point:** 300°F (148.9°C)

**Flash Point:** 277°F (136°C)

**Evaporation Rate:** No data available

**Flammability (Solid; Gas):** Not applicable

**Upper/Lower Flammability or Explosion Limits:** No data available

**Vapor Pressure (mm Hg @ 20°C (68° F):** No data available

**Vapor Density:** No data available

**Relative Density:** No data available

**Specific Gravity:** 0.97

**Solubility in Water:** Not miscible

**Weight per Gallon:** 7.75 lbs/gal

**Partition Coefficient (n-octanol/water):** No data available

**Auto-Ignition Temperature:** No data available

**Decomposition Temperature:** No data available

**Viscosity:** 30-50 cP

**9.2 Other Information:** No data available

**SECTION 10 – STABILITY AND REACTIVITY**

**10.1 Reactivity:**

This product is not reactive.

**10.2 Stability:**

Stable under conditions of normal storage and use.

**10.3 Possibility of Hazardous Reactions:**

Will not occur.

**10.4 Conditions to Avoid:**

Heat, open flame or other sources of ignition.

**10.5 Incompatible Substances:**

Strong oxidizing agents.

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**10.6 Hazardous Decomposition Products:** Carbon monoxide, Carbon dioxide and other decomposition products can occur during combustion if not use according to specifications.

**SECTION 11 – TOXICOLOGY INFORMATION**

**11.1 Information on Toxicological Effects:**

**Toxicity Data:**

Bisphenol A Diglycidyl Ether Resin	25068-38-6	LD50 Oral – Rat	13,600 mg/kg
Proprietary component A		LD50 oral - rat	>3000 mg/kg
2,2,4-trimethyl-1,3-pentenediol diisobutyrate	6846-50-0	LD50 Oral (Rat):	> 2,000 mg/kg
		LC50 Inhalation (Rat)	> 0.12 mg/l
		Dermal (Rabbit)	>2,000 mg/kg

**Suspected Cancer Agent:** Ingredients within this product are not found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be cancer-causing agents by these agencies.

**Irritancy:** Skin, eye irritant.

**Sensitization to the Product:** This product is expected to cause skin sensitization.

**Germ Cell Mutagenicity:** This product contains ingredients that are suspected to be a germ cell mutagenic.

**Reproductive Toxicity:** No data available.

**SECTION 12 – ECOLOGICAL INFORMATION**

**12.1 Toxicity:**

Bisphenol A Diglycidyl Ether Resin	25068-38-6	LC50 – Rainbow Trout	<10 mg/l – 96h
		EC50 – Algae	<10 mg/l – 96h
2,2,4-trimethyl-1,3-pentane diisobutyrate	6846-50-0	NOEC (Fish)	>= 6 mg/l
		NOEC (daphnid)	>=1.46 mg/l
		EC50 Chronic toxicity (Daphnia)	> 1.3 mg/l
		NOEC Chronic toxicity (Daphnia)	0.7 mg/l
		EC50 – Algae (Chlorella pyrenoidosa)	> 7.49 mg/l

**12.2 Persistence and Degradability:** No specific data available on this product.

**12.3 Bioaccumulative Potential:** No specific data available on this product.

**12.4 Mobility in Soil:** No specific data available on this product.

**12.5 Results of PBT and vPvB Assessment:** No specific data available on this product.

**12.6 Other Adverse Effects:** No data available

**12.7 Water Endangerment Class:** At present, there are no ecotoxicological assessments for this product.

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**SECTION 13 – DISPOSAL CONSIDERATIONS**

<b><u>13.1 Waste Treatment Methods:</u></b>	Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.
<b><u>13.2 EU Waste Code:</u></b>	Not determined

**SECTION 14 - TRANSPORTATION INFORMATION**

<b><u>14.1 U.S. Department of Transportation (DOT) Shipping Regulations:</u></b>	
<i>This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.</i>	
<b>UN Identification Number:</b>	Not Regulated
<b>Proper Shipping Name:</b>	None
<b>Hazard Class Number and Description:</b>	None
<b>Packing Group:</b>	None
<b>DOT Label(s) Required:</b>	None
<b>North American Emergency Response Guidebook Number:</b>	None
<b><u>14.2 Environmental Hazards:</u></b>	
<b>Marine Pollutant:</b>	The components of this product are designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).
<b><u>14.3 Special Precaution for User:</u></b>	
None	
<b><u>14.4 International Air Transport Association Shipping Information (IATA):</u></b>	
This product is considered as dangerous goods.	
<b><u>14.5 International Maritime Organization Shipping Information (IMO):</u></b>	
<b>UN Identification Number:</b>	Not Regulated
<b>Proper Shipping Name:</b>	None
<b>Hazard Class Number and Description:</b>	None
<b>Packing Group:</b>	None
<b>EMS-No:</b>	None
<b>Special Notes:</b>	The flash point for this material is greater than 100 F (38 C). Therefore, in accordance with 49 CFR 173.150(f) non-bulk containers (<450L or <119 gallon capacity) of this material may be shipped as non-regulated when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically listed as a hazardous substance.

**SECTION 15 – REGULATORY INFORMATION**

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**15.1 Safety, Health and Environmental Regulations Specific for the Substance or Mixture:**

United States Regulations:

**U.S. SARA Reporting Requirements:**

The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

**U.S. SARA 311/312:**

Acute Health: Yes; Chronic Health: Yes; Fire: Yes; Reactivity; No

**U.S. CERCLA Reportable Quantity:**

Not Applicable

**U.S. TSCA Inventory Status:**

The components of this product are listed on the TSCA Inventory or are exempted from listing.

**Other U.S. Federal Regulations:**

None known

**California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):**

This product does not contain ingredients on the Proposition 65 Lists.

**15.2 Canadian Regulations:**

**Canadian DSL/NDSL Inventory Status:**

Components are DSL Listed, NDSL Listed and/or are exempt from listing

**Other Canadian Regulations:**

Not applicable

**Canadian Environmental Protection Act (CEPA) Priorities Substances Lists:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian WHMIS Classification and Symbols:**

This product is Class B2, Flammable Liquid, and D2B, Materials causing other toxic effects, per WHMIS Controlled Product Regulations.



**15.3 European Economic Community Information:**

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives. See Section 2 for Details.

**Chemical Safety Assessment:**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**15.4 Australian Information for Product:**

Components of this product are listed on the International Chemical Inventory list.

**15.5 Japanese Information for Product:**

Japanese Minister of International Trade and Industry (MITI) Status: The components of this product are not listed as Class I specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

**15.6 International Chemical Inventories:**

Listing of the components on individual country Chemical Inventories is as follows:

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed



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U.S. TSCA: Listed

**SECTION 16 – OTHER INFORMATION**

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. SpecChem assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, SpecChem assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

**END OF SDS SHEET**