

# SPI Supplies Division

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Manufacturer's CAGE: 1P573

# Safety Data Sheet

Date Effective: April 16, 2013

SPI#02659-AB

SPI-PON™ 812 Epoxy Resin Monomer

Component of Kits #'s [02635-AB](#), [02660-AB](#), and [02663-AB](#)

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## Section 1: Identification

Chemical Name/Synonyms.....Glyceringlycidether; 1,2,3-Propanetriol, polymer with (chloromethyl)-oxirane

Chemical family..... Epoxy Resin

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-527-3887

Worldwide FAX: 1-(703)-741-6090

Toll-free phone: 1-(800)-424-9300 USA only

Product or Trade Name..... SPI #**02659-AB** SPI-PON™ 812 Epoxy Resin Monomer

Also found as a component in

SPI#02635-AB SPI-Pon™ - Araldite® Epoxy Kit

SPI#02660-AB original SPI-Pon™ 812 Epoxy Kit

SPI#02663-AB modified SPI-Pon™ 812 Epoxy Kit with BDMA.

CAS #'s..... 90529-77-4

EC#..... 292-011-4

**REACH Preregistration Number:** 05-2114360977-33-0000

**Relevant identified use:** Epoxy impregnation

**Manufacturer:** RASCHIG GMBH, Mundenheimer Str. 100, D-67061 Ludwigshafen / Rhein  
telephone: ++49(0)621-5618-0

**GHS Classification**

**Pictogram:** GHS07



Label: Warning

**Hazard Statements:**

H315 – Causes skin irritation.  
H319 – Causes serious eye irritation.

H303 – May be harmful if swallowed  
H313 – May be harmful in contact with skin

**Precautionary Statements:**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P262 Do not get in eyes, on skin, or on clothing.  
P281 Use personal protective equipment as required.  
P220 Keep away from alkaline solutions.  
P220 Keep away from oxidizing agents and acidic substances.  
P222 Do not allow contact with air.

**RESPONSE**

P309 IF exposed or if you feel unwell:  
P313 Get medical advice/attention.  
P305+P351+P338 Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**STORAGE**

P401 Store in accordance with local/regional/national/international regulations.  
P403 Store in a well-ventilated place.  
P235 Keep cool.

**DISPOSAL**

P501 Dispose of contents/container in accordance with local/regional/national international regulations.

Hazardous Material Information System USA

Health..... 1  
Fire Hazard..... 1  
Reactivity..... 0  
Personal Protection.....

NFPA Rating (estimated)

Health..... 2  
Flammability..... 1  
Reactivity..... 0

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**Section 2: Composition**

**CAS #**..... 90529-77-4 99.9+% Glyceringlycidether **EC#:** 292-011-4

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## Section 3: Hazard Identification

**Emergency Overview:** This material may be irritating upon contact.

**Physical Health Hazards:** Irritant.

**Physical State:** Liquid

**Color:** Clear Yellow

**Odor:** Odorless

**Odor threshold:** No data available

**Potential Health Effects:**

**Routes of Exposure:** Eye, ingestion, skin contact

**Signs and Symptoms of Acute Exposure:** Not known.

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## Section 4: First Aid Measures

Take proper precautions to ensure your own health and safety before attempting to rescue and providing first aid. Immediately remove any clothing soiled by the product. Take affected persons out of danger area and lay down. Position and transport stably on side. Artificial respiration with respiration bag or respirator.

**Skin contact:**

Wash affected area with copious amounts of water and soap. If skin irritation persists, seek medical attention.

**Inhalation:**

Remove to fresh air. Give oxygen or artificial respiration, as needed.

Seek immediate medical attention in case of complaints.

**Eye contact:**

Flush opened eyes with water for at least 15 minutes and seek medical attention.

**Ingestion:**

Rinse out mouth and then drink plenty of water. Seek medical attention. Induce vomiting only if affected person is fully conscious. Vomiting has possible danger of aspiration, so keep breathing passages free. Seek medical attention.

**Chronic Health Effects Summary:**

No known chronic health effects.

**Conditions Aggravated by Exposure:**

No known conditions are aggravated by this material.

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## Section 5: Fire Fighting Measures

**NFPA Rating:** Health: 2 Fire: 1 Reactivity: 0

**Flash Point:** ~175° C (~347° F)

**Auto-Ignition Temperature:** 270 -310 ° C (518 - 590° F) (DIN 51794)

**Flammable Limits:**

Lower: Not available

Upper: Not available

**Hazardous Combustion/Decomposition Products:**

Carbon monoxide and carbon dioxide, hydrogen chloride, phosgene gas, toxic pyrolysis products, may be formed.

**Extinguishing Media:**

Water spray, foam, dry powder or carbon dioxide. For safety reasons, do not use straight streams of water. For large fires use alcohol resistant foam.

**Fire Fighting Instructions:**

Protective Equipment/Clothing: Wear a NIOSH approved positive pressure self-contained breathing apparatus and fully protective firefighter turnout gear. Remove non-emergency personnel from the area.

**Additional Information:**

Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not  
Enter the sewage system.

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## Section 6: Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:**

Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away. Keep away from ignition sources.

**Environmental precautions:**

Do not allow to enter sewers / surface or ground water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to Section 13. Ensure adequate ventilation:

Contain larger spills and pump into suitable receptacles.

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## Section 7: Handling and Storage

**Handling:**

Precautions for safe handling:

Use only with adequate mechanical ventilation, especially at floor level, since fumes are heavier than air.

Prevent formation of aerosols.

Avoid contact with the eyes and skin – use protective neoprene gloves/protective clothing/chemical splash goggles.

Information about protection against explosions and fires:

Keep ignition sources away – Do not smoke.

**Storage:**

Store in original container. Provide solvent resistant, sealed floor.

Store in tightly closed container in cool, well ventilated area.

Store away from metals, strong acids, alkalines, and oxidizing agents.

Avoid contact with air / oxygen. (formation of peroxide)

Store at 15°C to 25°C.

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## Section 8: Exposure Controls and Personal Protection

### Engineering Controls:

Use only with adequate mechanical ventilation. Safety shower and eye wash station must be available to the workplace.

### Personal Protection:

**Inhalation:** Use appropriate respiratory protection where needed. Recommended filter device for short term use: Filter A. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

**Skin:** Wear neoprene gloves with penetration time  $\geq$  8 hours. Protective clothing such as long sleeves or a lab coat should be worn. Immediately remove all soiled and contaminated clothing.  
Not suitable: Leather gloves, Strong gloves.

**Eye:** Always use safety goggles, even for work with small quantities.

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## Section 9: Physical and Chemical Properties

### Appearance:

Form: Liquid  
Color: Yellow  
Odor: Odorless

**Melting Point:** Not determined

**Boiling Point/Range:** Decomposes

**Decomposition Temperature:**  $\geq$  180 °C ( $\geq$  256°F) (DSC)

**pH: (10 g/l) at 20°C:** ~6-8

**pKa-Value at 20°C :** ~13.2

**Vapor Pressure:** Not applicable

**Viscosity:** Dynamic at 20°C: 100-200 mPas

**Density at 20°C (68°F):** ~1.22 g/cm<sup>3</sup>

**Water solubility at 20°C (68°F):** 20-30 g/l

**Organic solvents:** Soluble in most organic solvents

**Evaporation Rate:** Not applicable

**Flash Point:** ~175°C (~347°F) (DIN 51758, EN 22719)

**Ignition Temperature:** ~270-310°C (~518-590°F) (DIN 51794)

**Segregation coefficient (n-octanol/water):** ~-1.94 - -1.78 log POW (calc)

**Viscosity, dynamic at at 20°C (68°F):** ~100-200 mPas

**Other information:** Cannot be distilled without decomposition

**VOC USA:** ~0.7-0.8 % ASTM 2369

**VOC Swiss:** 0 % VOVC 08.10.02

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## Section 10: Stability and Reactivity

### Chemical Stability:

Danger of polymerization

### Conditions to Avoid:

Avoid contact with excessive heat, sparks or open flame. Overheating may lead to spontaneous, possibly explosive, exothermic polymerization.

### Incompatibility with:

Alkalies, strong acids, strong bases, some metallic salts, oxidizing agents, some powdered metals.

### Hazardous Products of Decomposition:

Hydrogen chloride, phosgene, toxic pyrolysis products, carbon dioxide, carbon monoxide.

### Additional Information:

This substance is very reactive, and will lead to quick, possibly explosive polymerization in contact with strong acids, alkalines, metals and the salts of them. Overheating can also lead to a spontaneous, possibly explosive, exothermic polymerization.

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## Section 11: Toxicological Information

### Summary:

This material may be an irritant on skin contact. This material may be harmful if swallowed or inhaled. This material may be a sensitizer on skin contact.

### Eye Effects:

Strong irritant.

### Skin Effects:

Strong irritant. Sensitization possible.

### Acute Oral Effects:

Harmful if ingested.

### Acute Inhalation Effects:

Harmful if inhaled.

CAS#	Dermal LD50	Oral LD50	Inhalation TCL0
90529-77-4	>2000 mg/kg rabbit	5000 mg/kg rat	10 mg/m <sup>3</sup> rat

### Chronic Effects/Carcinogenicity:

CAS# 90529-77-4 is not listed by OSHA, IARC, NTP or CA Prop 65

### Reproductive/Development Effects:

AMES Test: Mutagenic effects noted. OECD 471, Salmonella typhimurium

The data available is not sufficient for a complete industrial toxicological evaluation. The usual hygienic measures must be observed when dealing with chemicals.

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## Section 12: Ecological Information

### Exotoxicity:

Persistence & Degradability: No further relevant information available.

Degree of elimination: 0%

Classification: Not readily biodegradable. Calculated. BIOWIN 4.01

### Behavior in environmental systems:

Bio-accumulative potential: The bio accumulation potential is considered to be negligible.

Log P o/w: -1.94 - -1.78 calculated

BCF: 3.162, log BCF 0.5, calculated, BCFWIN 2.15

Mobility in soil: No further relevant information available.

### Additional ecological information:

#### CSB Value:

At 0.11 wt% in water, COD= 19,800

At 0.05 wt% in water, COD= 5,300

#### BSB5-value:

At the dilution of 1:100 up to 1:1,000,000, no biodegradation was detectable.

AOX-indication: AOX ~ 10%

#### Aquatic Toxicity:

LC50 2-10 mg/liter (Daphnia magna, 48h) calculated ECOSAR 0.99g

LC50 50-100 mg/liter (Fische (fish) 96 h) calculated ECOSAR 0.99g

#### General Notes:

Do not allow product to reach ground water, water course or sewage system.

Water hazard class 1: Slightly hazardous for water (Germany)

#### Results of PBT and vPvB assessment:

PBT: Not applicable

vPvB: Not applicable

Other adverse effects: No further relevant information available.

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## Section 13: Disposal Considerations

Product must be land-filled or incinerated in accordance with all applicable local, state, and federal laws and regulations. Consult your appropriate regulatory officials for information on such disposal.

Uncleaned Packagings: Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

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## Section 14: Transport Information

Proper Shipping Name: Not applicable

DOT Status: Not Regulated

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## Section 15: Regulatory Information

### **TSCA:**

90529-77-4: This product is listed on the TSCA, yes, CAS # 13236-02-7; 25038-04-4

8(b) inventory.

If identified components of this product are listed under the TSCA 12(b) Export Notification Rule, they will be listed below.

TSCA 12(b) Component Listed under TSCA Section: None

**SARA-Section 313 Emissions Reporting:** Not listed

**SARA-Section 311/312:** Not listed

**SARA-Section 355:** Not listed

**CERCLA Hazardous Substances and their Reportable Quantities:** Not listed

### **Carcinogenicity:**

This product is not listed on EPA, IARC, NTP, TLV, MAX, NIOSH-Ca, OSHA-Ca

### **California Prop. 65:**

Proposition 65 requires manufacturers or distributors of consumer products into the State of California to provide a warning statement if the product contains ingredients for which the State has found to cause cancer, birth defects or other reproductive harm. If this product contains an ingredient listed by the State of California to cause cancer or reproductive toxicity, it will be listed below:

### **Canada:**

**WHMIS RATING:** Not available

### **DSL:**

90529-77-4: This product is listed on the DSL. Yes, CAS# 13236-02-7.

### **IECSC Chinese Chemical Inventory of Existing Chemical Substances:**

90529-77-4: Glycerol glycidyl ether, 1,2,3-propanetriol, polymer with (chloromethyl)-oxirane

### **Australian Inventory of Chemical Substances:**

90529-77-4: Glycerol glycidyl ether, 1,2,3-Propanetriol, polymer with (chloromethyl)-oxirane. Yes, CAS#'s 13236-02-7; 25038-04-4; 90579-77-4.

### **Japan, ENCS Existing and New Chemical Substance List:**

90529-77-4: Glycerol glycidyl ether, 1,2,3-Propanetriol, polymer with (chloromethyl)-oxirane. Yes, 7-343X, 7-1280.

### **Korea, KECI Korean Existing Chemical Inventory Korea:**

90529-77-1: Glycerol glycidyl ether, 1,2,3-Propanetriol, polymer with (chloromethyl)-oxirane. KE-29302, KE-29313, KE-29349.

### **IL, Israel, IHSL, Proposed Israel Hazardous Substances List:**

Substance is not listed.



**TTCSL, Proposed Taiwan Toxic Chemical Substances List:**

Substance is not listed.

**PICCS, Philippines Inventory of Chemicals and Chemical Substances:**

Substance is not listed.

**NZIoC, New Zealand Inventory of Chemicals:**

Substance is not listed.

**GERMANY:**

**MAK (German Maximum Workplace Concentration):**

Substance is not listed.

WGK: 1

**National Regulations:**

**Limitation of Use:**

Employment restrictions concerning young persons must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

**Technical instructions (air):**

**Paragraph: / Class: 5,2,5 / .(German regulation)**

**Other regulations, limitations and prohibitive regulations:**

**BG-Device: (Germany)**

Leaflet: M 023 "Polyester-und Epoxid-Harze"

Leaflet: M004 "Irritating/Corrosive Chemicals"

German Employers' Liability (Compulsory Insurance)

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**EUROPEAN LABELING:**

Hazard: XI Irritant

**Risk Phrases:**

R36/38 Irritating to eyes & skin

**Safety Phrases:**

- S23 Do not breathe fumes / aerosol
- S24/25 Avoid contact with skin & eyes
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- S27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water
- S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

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## Section 16: Other Information

### **Disclaimer of Liability:**

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues or fluids.

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