

## SPI Supplies Division

Structure Probe, Inc.

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Manufacturer's CAGE: 1P573

## Safety Data Sheet

Date Effective: May 4, 2016

02468-BA

SPI-Chem™ Butvar® B-98 Polyvinyl Butyral Resin

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### Section 1.1: Identification

Chemical Name/Synonyms..... Polyvinyl Butyral Resin

Product or Trade Name..... SPI-Chem™ Butvar® B-98 / Polyvinyl Butyral Resin

CAS #'s..... 63148-65-2

Chemical Formula..... Not available

### Section 1.2: Relevant Uses/Restrictions

Intended use: As a support film for TEM Grids in the electron microscopy laboratory.

### Section 1.3: Supplier of the Safety Data Sheet

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### Section 1.4: Emergency telephone number

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-741-5970

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

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### Section 2: Hazard Identification

2.1 Classification of the substance

**GHS Classification an accordance with 29 CFR 1910 (OSHA HCS)**

Skin irritation (Hazard category 2)

Eye irritation (Hazard category 2A)

Specific target organ toxicity – single exposure (Hazard category 3, respiratory system)

2.2 Label elements

Pictogram



Signal Word: Warning

Hazard statements:

- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation

Precautionary statements:

- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P364 Wash thoroughly after handling
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P302 + 352 IF ON SKIN: Wash with soap and water
- P304 + 340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P350 + 351 + 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
- P312 Call a POISON CENTER or doctor/physician if you feel unwell
- P321 Specific treatment (see supplemental first aid instructions on this label)
- P332 + 313 If skin irritation occurs: Get medical advice/attention
- P337 + 313 If eye irritation persists get medical advice/attention
- P362 Take off contaminated clothing and wash before reuse
- P403 + 233 Store in a well ventilated place. Keep container tightly closed
- P405 Store locked up
- P501 Dispose of contents / container to an approved waste disposal plant

Unknown percentage statements (if needed):

2.3 Other Hazards:

Hazardous Material Information System USA

- Health..... 2
- Fire Hazard..... 0
- Reactivity..... 0
- Personal Protection.....

NFPA Rating (estimated)

- Health..... 2
- Flammability..... 0
- Reactivity..... 0

Hazards not otherwise classified (HNOC) or not covered by GHS: Combustible dust.

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## Section 3: Composition

3.1 Substances:

CAS# 63148-65-2 Polyvinyl butyral >99%

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## Section 4: First Aid Measures

### 4.1 Description of first aid measures:

**General:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin Contact:** In case of skin contact, wash off with soap and plenty of water. Consult a physician.

**Eye Contact:** In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Ingestion:** If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

See Section 2.2 and Section 11 for most important symptoms and effects.

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

No data available.

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## Section 5: Fire Fighting Measures

### 5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

### 5.3 Advice for firefighters

Special protective equipment and precautions for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

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## Section 6: Accidental Release Measures

### 6.1 Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see Section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal, see Section 13.

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## Section 7: Handling and Storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes.  
Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.  
For precautions see Section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end uses

Intended use: As a support film for TEM Grids in the electron microscopy laboratory.

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## Section 8: Exposure Controls and Personal Protection

### 8.1 Control parameter and Personal Protection

Workplace exposure limits: Contains no substances with occupational exposure limit values.

Biological limit values: No data available.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.  
Wash hands before breaks and at the end of the workday.

#### 8.2.2 Individual protection measures

Eye/face protection: Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hand.

Body protection: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (Eu En 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards, such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Do not let product enter drains.

#### 8.2.3 Environmental exposure controls

No additional information available.

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## Section 9: Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance

Form: solid

Odor

No data available

Odor Threshold	No data available
pH	No data available
Melting point/Freezing point	No data available
Boiling point/Boiling point range	No data available
Flash Point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	May for combustible dust concentrations in air
Upper/lower flammability or explosive limits	No data available
Vapor Pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	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
Explosive properties	No data available
Oxidizing Properties	No data available
9.2 Other information	No data available

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## Section 10: Stability and Reactivity

10.1 Reactivity - No data available

10.2 Chemical Stability – Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions - No data available

10.4 Conditions to avoid - No data available

10.5 Incompatible materials – Strong oxidizing agents

10.6 Hazardous decomposition products - No data available

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## Section 11: Toxicological Information

11.1 Information on toxicological effects

a. acute toxicity

No data available

b. skin corrosion / irritation

No data available

c. serious eye damage / eye irritation

Eyes Rabbit Result: Moderate eye irritation – 24 hours

d. respiratory or skin sensitization

No data available.

e. germ cell mutagenicity

No data available.

f. carcinogenicity

IARC: No component of this product present at levels greater 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.

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.

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>

g. reproductive toxicity

No data available.

h. Specific Target Organ Toxicity-single exposure

May cause respiratory irritation.

No data available.

I. Specific Target Organ Toxicity-repeated exposure

No data available.

j. aspiration hazard

No data available.

Additional Information:

RTECS: TR4955000

To the best of our knowledge, the chemical, physical and toxicological properties of this material have not been thoroughly investigated.

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## Section 12: Ecological Information

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/ not conducted.

12.6 Other adverse effects

No data available.

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## Section 13: Disposal Considerations

13.1 Waste treatment methods

**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging:** Dispose of as unused product.

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## Section 14: Transport Information

DOT

Not a dangerous goods.

IATA

Not a dangerous goods.

IMDG

Not a dangerous goods.

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## Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

**TSCA (US Toxic Substances Control Act):** All components of this product are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

**OSHA:** hazardous

**SARA 302 Components:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:** Acute Health Hazard.

**Massachusetts Right to Know Components:** No components are subject to the Massachusetts Right to Know Act.

**New Jersey and Pennsylvania Right to Know Components:** CAS# 63148-65-2 Butvar B-98

**California Prop. 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out on this material.

Date of Preparation: 04 May 2016.

#### Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxicological

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety Health

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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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