

SPI Supplies Division

Structure Probe, Inc.

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Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: August 4, 2015

SPI #02681-AB SPI-Chem™ Butanediol Diglycidyl Ether

Section 1: Identification

Chemical Name/Synonyms..... Butanediol Diglycidyl Ether; Araldite RD-2

Identified Uses.....Laboratory Chemical. Research and Development

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..... Butanediol Diglycidyl Ether

CAS #'s..... 2425-79-8

Chemical Formula..... $C_{10}H_{18}O_4$

Section 2: Hazard Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4)

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

Skin Irritation (Category 2)

Eye Irritation (Category 2A)

Skin sensitization (Category 1)

Acute aquatic toxicity (Category 3)

Chronic aquatic toxicity (Category 3)

GHS Label elements

Pictogram



Signal word: Warning

Hazard Statements:

H302 + H312 + H332 harmful if swallowed, in contact with skin or if inhaled.

- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

- P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P301 + P312 + P330 IF SWALLOWED: call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312 Call a POISON CENTOR or doctor/ physician if you feel unwell.
- P305 + P351 + P338 If In Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P333 + P313 If skin irritation or rash occurs: get medical advice/ attention.
- P337 + P313 If eye irritation persists: get medical advice/ attention.
- P362 Take off contaminated clothing and wash before reuse.
- P501 Dispose of contents/ container to an approved waste disposal plant

Hazardous Material Information System USA

- Health..... 2
- Fire Hazard..... 1
- Reactivity..... 0
- Personal Protection.....

NFPA Rating (estimated)

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

Section 3: Composition

| Component Name | CAS # | Percent | EINECS/ELINCS | EU No. |
|-----------------------------|-----------|---------|---------------|--------------|
| Butanediol diglycidyl ether | 2425-79-8 | >95% | 219-371-7 | 603-072-00-7 |

Section 4: First Aid Measures

Eyes: In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes and seek medical attention.

Skin: In case of skin contact wash off with soap and plenty of water; seek medical attention.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek immediate medical attention.

Inhalation: In case of inhalation, move victim to fresh air. If not breathing, give artificial respiration. Seek medical attention.

Section 5: Fire Fighting Measures

General Information: Wear self-contained breathing apparatus in pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear.

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

Section 6: Accidental Release Measures

General Information: Use personal protective equipment. Avoid breathing vapors, mist or gas. Endure adequate ventilation.

Spills/Leaks: Do not let product enter drains or waterways. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Wash hands thoroughly before breaks and at the end of the day.

Storage: Store in tightly closed containers in dry, well-ventilated area.

Section 8: Exposure Controls and Personal Protection

Engineering Controls: Eye wash facility and safety shower must be available to the work area. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

There are no occupational exposure limit values associated with this chemical.

Personal Protective Equipment

Eyes: Face shield and safety glasses recommended.

Skin: Wear appropriate gloves to avoid skin contact.

Clothing: Wear appropriate clothing to prevent skin contact.

Respirators: Use suitable respirator which meets OSHA's 29 CFR 1910.134, ANSI Z88.2 or the European Standard EN 149 where concentrations are high.

Section 9: Physical and Chemical Properties

Physical State: clear viscous liquid

Appearance: light yellow

Odor: not available

pH: not available

Vapor Pressure: 13 hPa (0 mmHg) at 20°C (68°F)

Vapor Density: 6.97

Evaporation Rate: 0.012-0.018 Pas at 25°C (77°F)

Viscosity: <15 mPa at 25°C (77°F)

Boiling Point: 266°C (511°F)

Freezing/Melting Point: not available

Autoignition Temperature: not available

Flash Point: 110°C (230°F)

Decomposition Temperature: not available

Explosion Limits:

Lower: not available

Upper: not available

Solubility in water: not available

Specific Gravity/Density: 1.1 grams/cc at 25°C (77°F)

Molecular Formula: C₁₀H₁₈O₄

Molecular Weight: 202.25 grams/mole

Section 10: Stability and Reactivity

Chemical Stability: Stable under recommended storage conditions.

Conditions to Avoid: No data available.

Incompatibility with Other Materials: Strong oxidizing agents, Bases.

Hazardous Decomposition of Products: Carbon monoxide, Carbon dioxide

Hazardous Polymerization: Has not been reported.

Section 11: Toxicological Information

RTECS#: EJ5100000

LD₅₀/LC₅₀ Information:

| | | | |
|------|------|--------|-------------|
| LD50 | Oral | Rat | 1,134 mg/kg |
| LD50 | Oral | Mouse | 1100 ug/kg |
| LD50 | Skin | Rabbit | 1130 mg/kg |

Draize Test:

| | | | |
|--------|------|---------------|----------|
| Rabbit | Skin | 10 mg/24Hours | Moderate |
| Rabbit | Eye | 100 mg | Moderate |

Carcinogenicity:

Not listed as a carcinogen by ACGIH, IARC, OSHA, NTP, or CA Prop 65.

Teratogenicity:

No data available

Reproductive Effects:

No data available

Neurotoxicity:

No data available

Mutagenicity:

Genotoxicity in vitro, Hamster, Lungs, Sister chromatid exchange

Genotoxicity in vivo, Rat, Intraperitoneal, Cytogenetic analysis

Other Studies:

The chemical, physical and toxicological properties of this chemical have not been thoroughly investigated.

Section 12: Ecological Information

Exotoxicity:

| | | |
|---------------------|----------------------------|----------------|
| Toxicity to fish: | | |
| LC50 | Danio rerio (zebra fish) | 24 mg/l – 96 h |
| Toxicity to daphnia | | |
| EC50 | Daphnia magna (water flea) | 75 mg/l – 48 h |

Environmental Fate:

Biotic/Aerobic Result: <40% - Not readily biodegradable.

Aquatic: Harmful to aquatic live, with long lasting effects. Do not empty into drains.

Atmospheric:

No data available

Physical:

No data available

Section 13: Disposal Considerations

Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section 14: Transport Information

US DOT Hazard Class:

Not dangerous goods.

IATA (for international shipments)

Not dangerous goods.

IMDG

Not dangerous goods.

Section 15: Regulatory Information

United States:

TSCA

CAS# 2425-79-8 is listed on the TSCA inventory list.

SARA:

Section 302

CAS# 2425-79-8 is not subject to the reporting requirements of SARA Title III, Section 302.

SARA Codes

CAS# 2425-79-8 is an Acute Health Hazard.

Section 313

CAS# 2425-79-8 does not contain any chemical component subject to the reporting levels established by SARA

Title III, Section 313.

State (Individual states in the USA) Right-to-Know Components

CAS# 2425-79-8 is listed by Massachusetts, Pennsylvania, and New Jersey

California Prop. 65:

CAS# 2425-79-8 is not listed by the State of California to cause cancer, birth defects, or any other reproductive harm.

WGK (Water Danger/Protection):

CAS# 2425-79-8: 2

Canada:

CAS# 2425-79-8 is listed on Canada's DSL List.

This product has a WHMIS classification of D2B, D1B

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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