

MATERIAL SAFETY DATA SHEET

Superior 450 Detailing Seam Sealer

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Issue Date: March 15, 2015

Revision Date: May 9, 2017

Product Name: Superior 450 Detailing Seam Sealer

Product Number: AD450-5

Product Use: Roof Seam Sealant

Uses Advised Against: For exterior use only. Do not use indoors.

Manufacturer: Superior Polymers Inc.
Box 2113, Angus, Ontario
Canada L0M 1B0
Tel: (705) 718-7332

Emergency Phone: 1-844-321-7332
Chemtrec (800) 424-9300

Section 2: HAZARDS IDENTIFICATION

Classification:

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity: Category 2

Specific target organ toxicity (repeated exposure): Category 1

Aspiration toxicity: Category 1

Flammable Liquids: Category 3

Label Elements: Emergency Overview

Hazard statements:

Danger - Flammable liquid or vapour

Suspected of causing cancer

Causes damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways



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Appearance: White, Viscous

Physical state: Liquid

Odour: Solvent (Mineral Spirits, Xylenes)

Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Keep away from heat/sparks/open flames/hot surfaces.

Keep container tightly closed when product is not in use.

Ground/bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting/equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Disposal should be in accordance with applicable local, regional, national and international laws and regulations.

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

- Causes mild skin irritation
- Toxic to aquatic life with long lasting effects
- Harmful to aquatic life

Unknown acute toxicity 29% of the mixture consists of ingredient(s) of unknown toxicity

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Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance**Mixture:**

This product is a mixture.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Common name: Roof Sealant

Synonyms: None.

Chemical nature: Organic solvents and additives

| Ingredient | CAS# | WT. % |
|-------------------------------------------|-------------|--------------|
| Styrene-Ethylene/Butylene-Styrene Polymer | 66070-58-4 | 9 -20 |
| Hydrocarbon Resin | 68425-58-1 | 7 - 11 |
| Calcium Carbonate | 1317-65-3 | 9 - 15 |
| Titanium Dioxide | 14808-60-7 | 8 - 20 |
| Dimethylbenzene | 1330-20-7 | 20 - 40 |
| Ethylbenzene | 100-41-4 | 10 - 30 |

Section 4: FIRST AID MEASURES

Description of first aid measures

General advice Contains petroleum distillate. Harmful or fatal if swallowed. Vapor harmful. May affect the brain or central nervous system causing dizziness, headache, or nausea. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

Eye contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin contact Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If continued difficulty with breathing is experienced, get medical attention immediately.

Ingestion Not an expected route of exposure. If swallowed, do not induce vomiting. Get medical attention immediately.

Self-protection of the first aider First aider: Pay attention to self-protection!

Most important symptoms and effects, both acute and delayed

Symptoms May cause skin irritation. May cause eye irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

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Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO₂). Sand. Use foam or water FOG as a last resort.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Sealed container may rupture/burst when heated or exposed to excessive heat.

Hazardous combustion products Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases, vapors and fumes.

Explosion data

Sensitivity to Mechanical Impact Not sensitive.

Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions No action should be taken involving any personal risk or without suitable training. Use personal protective equipment as required.

Other Information Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering sewers, drains, or waterways. Local authorities should be advised if significant spillages can not be contained. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Contain spillage with non-combustible absorbent material, e.g. sand, earth, diatomaceous earth, vermiculite.

Methods for cleaning up Pick up the absorbed material (described just above) and transfer to properly labeled containers for disposal according to local / national regulations (see Section 13).

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING & STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Remove all sources of ignition. Use only outdoors.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, dry, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition.

Incompatible materials Strong acids. Strong oxidizing agents.

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Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines No ACGIH or OSHA PEL is assigned to this mixture. Exposure limits for the component materials are shown below. This product, as supplied, is not believed to contain any hazardous material that exceeds exposure limits established by OSHA.

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--------------------------------|---------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Dimethylbenzene 1330-20-7 | TWA: 100 ppm | TWA: 100 ppm | TWA: 100 ppm |
| Ethylbenzene 100-41-4 | TWA: 20 ppm | TWA: 100 ppm | TWA: 100 ppm |
| Calcium Carbonate 471-34-1 | - | - | TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust |
| Titanium Dioxide 13463-67-7 | TWA: 10 mg/m ³ | TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust | IDLH: 5000 mg/m ³ |

Appropriate engineering controls

Engineering Controls Use natural cross ventilation, local (mechanical) pick-up, and/or general area mechanical cross ventilation. Ventilation pattern should be designed to prevent accumulation of asphalt vapors. Ventilation must be sufficient to maintain asphalt vapor concentrations below the TWA limits outlined above.

Individual protection measures, such as personal protective equipment

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

Skin and body protection: Wear protective gloves and protective clothing that is resistant to chemical penetration.

Respiratory protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection should be worn.

General Hygiene Considerations: Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: Liquid

Appearance: Viscous

Color: White

Odour: Hydrocarbon odor

Odour Threshold: 1-30 PPM. Odour thresholds vary greatly. Do not rely on odour threshold alone to determine potentially hazardous substances

pH: 8.0 – 9.0

Viscosity: 135,000 cps

Density: 9.26 lbs/gal

Boiling Point (Range): > 154 °C / 310 °F

Flash Point: > 46 °C / > 115 °F (Setaflash)

Evaporation Rate: 0.1 (butyl acetate = 1.0)

Flammability (solid, gas): No information available

Flammability Limit in Air: Flammable above 115 degrees F and 46 degrees C

Upper flammability limit: 7.0

Lower flammability limit: 1.6

Vapor pressure 0.3 (kPa) at 20°C

Vapour Density: 5.3

Specific Gravity: 1.11

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Solubility in Water: Negative

Solubility in other solvents: Soluble in aromatic and aliphatic solvents.

Boiling point / boiling range: > 154 °C / 310 °F

Partition coefficient: No information available

VOC content: less than 500 g/l

Autoignition temperature: 330 °C / 626 °F

Decomposition temperature: No information available

Kinematic viscosity: No information available

Dynamic viscosity: No information available

Explosive properties: Vapor accumulation could flash or explode if ignited.

Oxidizing properties: None

Section 10: STABILITY AND REACTIVITY

Reactivity: Not Applicable

Chemical stability: Stable.

Possibility of Hazardous Reactions: None under normal use.

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid: Avoid static discharge. Avoid heat, sparks, and open flame.

Incompatible materials: Strong acids. Strong oxidizing agents.

Hazardous Decomposition Products: Combustion may produce carbon monoxide, carbon dioxide, and other asphyxiants.

Section 11: TOXICOLOGY INFORMATION

Information on likely routes of exposure

Product Information: Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.

Inhalation: Avoid breathing vapors or mists.

Eye contact: Avoid contact with eyes. Contact with eyes may cause irritation.

Skin contact: May cause irritation.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately. Not an expected route of exposure.

Component Information The IARC Monograph (Vol 93, 2010, Carbon Black, Titanium Dioxide, Talc) states: "No significant exposure to primary particles of Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints."

* No significant exposure to Crystalline Silica (Quartz) is thought to occur during the use of products in which Crystalline Silica (Quartz) is bound to other materials, such as in paints and coatings. As one reference, see California Office of Health Hazard Assessment at: http://www.oehha.org/prop65/CRNR_notices/safe_use/sylicasud2.html

Component Analysis

| Ingredient | LD50 (oral) | Dermal LD50 | Inhalation LC50 |
|-------------------|-----------------|--------------------|----------------------|
| Dimethylbenzene | Rat 3000 mg/kg | - | Rat 47635 mg/L - 4 h |
| Ethylbenzene | Rat 3500 mg/kg | Rabbit 15354 mg/kg | Rat 17.2 mg/L - 4 h |
| Calcium Carbonate | Rat 6450 mg/kg | - | - |
| Titanium Dioxide | Rat 10000 mg/kg | - | - |

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Information on toxicological effects:

Symptoms: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Skin corrosion/irritation: Can cause skin irritation.

Serious eye damage/eye irritation: Irritating to eyes.

Irritation: Irritating to eyes, respiratory system and skin.

Corrosivity: Not classified

Sensitization: May cause sensitization of susceptible persons

Germ cell mutagenicity: This product does not contain any ingredients that cause germ cell mutagenicity.

Carcinogenicity: The table below indicates whether each agency (ACGIH, IARC, NTP, or OSHA) has listed any ingredient as a carcinogen

| Chemical Name | ACGIH | IARC |
|---------------------------|-------|----------|
| Ethylbenzene 100-41-4 | A3 | Group 2B |
| Dimethylbenzene 1330-20-7 | - | Group 3 |

Reproductive toxicity: None known.

Developmental Toxicity: None known.

Teratogenicity None known

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Numerical measures of toxicity - No information available

The following values are calculated based on chapter 3.1 of the GHS document For exterior use only. Do not use indoors.

ATEmix (oral) 9,574.00

ATEmix (dermal) 5,132.00

ATEmix (inhalation-dust/mist) 11.83

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Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Xylenes 1330-20-7

Ecotoxicity (aquatic and terrestrial, where available):

Fish: rainbow trout: LC50 = 13.5 mg/L; 96 Hr; unspecified

Fish: rainbow trout: LC50 = 8.5 mg/L; 96 Hr; static conditions

Fish: goldfish: LD50 = 13 mg/L; 24 Hr; unspecified

Fish: fathead minnow: LC50 = 46 mg/L; 1 Hr; Static bioassay

Fish: fathead minnow: LC50 = 16.1mg/L; 96 Hr; flow through conditions

Fish: bluegill: EC50 = 16.1mg/L; 48 Hr; flow through conditions

Water flea: EC50 = 3.82 mg/L; 24 Hr; flow through conditions

Photobacterium phosphoreum: EC50 = 0.0 084 mg/L; 24Hr microtox test

Ethylbenzene 100-41-4

Ecotoxicity (aquatic and terrestrial, where available):

Fish: rainbow trout: LC50 = 13.5 mg/L; 96 Hr; unspecified

Fish: rainbow trout: LC50 = 8.5 mg/L; 96 Hr; static conditions

Fish: goldfish: LD50 = 13 mg/L; 24 Hr; unspecified

Fish: fathead minnow: LC50 = 46 mg/L; 1 Hr; Static bioassay

Fish: fathead minnow: LC50 = 16.1mg/L; 96 Hr; flow through conditions

Fish: bluegill: EC50 = 16.1mg/L; 48 Hr; flow through conditions

Water flea: EC50 = 3.82 mg/L; 24 Hr; flow through conditions

Photobacterium phosphoreum: EC50 = 0.0 084 mg/L; 24Hr microtox test

Persistence and degradability: No information available.

Bioaccumulation: No information available.

| Chemical Name | Partition Coefficient |
|---------------------------|-----------------------|
| Dimethylbenzene 1330-20-7 | 3.15 |
| Ethylbenzene 100-41-4 | 3.118 |

Other adverse effects: No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods:

Disposal of wastes Disposal should be in accordance with applicable local, regional, national and international laws and regulations.

Contaminated packaging: Do not reuse container.

| Chemical Name | RCRA Basis for Listing | RCRA U Series Wastes |
|---------------------------|-------------------------------|----------------------|
| Dimethylbenzene 1330-20-7 | Included in waste stream FO39 | U239 |
| Ethylbenzene 100-41-4 | Included in waste stream | - |

| Chemical Name | California Hazardous Waste Status |
|---------------------------|-----------------------------------|
| Dimethylbenzene 1330-20-7 | Toxic - Ignitable |
| Ethylbenzene 100-41-4 | Toxic -Ignitable |

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Section 14: TRANSPORTATION INFORMATION

Transport Document Name: UN 1263, Paint Related Material, 3, PGIII FP 46C° (115F°)

Proper Shipping Name: Rubber Solution

Hazard Class and Division: 3

UN Number: 1263

Packing Group: III

Labels: 3

Section 15: REGULATORY INFORMATION

Federal Regulations

Canadian: This product has been classified in accordance with the hazard criteria of the CPR. The MSDS contains all the information required by the CPR. WHMIS Classification: D2B – Toxic, B3 – Flammable

Ingredients – Canadian Regulatory Information

Titanium Dioxide WHMIS - Ingredient Disclosure List

Ethylbenzene WHMIS - Ingredient Disclosure List

Dimethylbenzene WHMIS – Ingredient Disclosure List

Calcium Carbonate WHMIS - Ingredient Disclosure List

HMIS – Hazardous Materials Identification System

Health - 2 Flammability – 2 Reactivity - 0

NFPA – National Fire Protection Association

Health - 2 Fire - 2 Reactivity - 0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

Section 16: OTHER INFORMATION

Disclaimer: Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

Superior Polymers Inc.

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