



# Material Safety Data Sheet

MSDS Code: Stayflex™ 2505  
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## SECTION I – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Stayflex™ 2505 Thermal Barrier Coating

Company Identification: Preferred Solutions, Inc.  
7819 Broadview Road  
Cleveland, OH 44131

### IN CASE OF EMERGENCY:

Chemtrec (US): 24 hours/7days (800) 424-9300  
Manufacturer: 9am-5pm (EST) Mon-Fri (800) 522-4522

## SECTION II – HAZARDOUS INGREDIENT INFORMATION

<u>Ingredient (s)</u>	<u>CAS#</u>	<u>% (by weight)</u>
Polymer (s)	Trade Secret	20.0
Styrene Monomer	100-42-5	15.3

**Additional Ingredient Information:** Styrene Monomer may contain trace amounts of Benzene (CAS# 71-43-2) as an impurity.

This mixture is classified as hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).

## SECTION III – HAZARDS IDENTIFICATION

### Potential Acute Health Effects:

Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of concentration, impaired judgement and general weakness. Severe eye irritant may result in redness, burning, tearing and blurred vision. Skin irritant may result in redness, burning, drying and cracking or possible allergic skin reaction. Ingestion may result in mouth, throat, lung, gastrointestinal irritation and nausea, vomiting and diarrhea.

**Carcinogenic Effects:** Styrene: Classified 2B (possible for human) by the International Agency for Research on Cancer (IARC). Various long-term animal studies and epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic.

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## SECTION IV - FIRST AID MEASURES

Eyes: Move individual away from exposure and into fresh air. Flush with water for at least fifteen (15) minutes. Get prompt medical attention.

Skin: Remove contaminated clothing. Wash thoroughly with soap and water. If skin is damaged seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation: Move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting. Pre-existing disorders of the following organs may be aggravated by exposure to this material: respiratory tract, skin, lung, liver, kidney, central nervous system, male reproductive system, auditory system.

## SECTION V – FIRE FIGHTING MEASURES

Auto-Ignition Temperature: 914°F (490°C) Styrene

Flash Point: 88°F (31°C) Styrene

Flammable Limits: Lower flammable limit of vapors: 1.1% Styrene Monomer  
Upper flammable limit of vapors: 6.1%

Products of Combustion: May produce carbon dioxide, carbon monoxide, toxic fumes, and other hydrocarbons.

Fire and Explosion Hazards: Flammable liquid. Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

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Extinguishing Media: Foam (such as AFFF & AR), water fog, dry chemical, carbon dioxide

Fire Fighting Instructions: Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.

NFPA Rating: Health: 2 Flammability: 3 Reactivity: 2

## **SECTION VI – ACCIDENTAL RELEASE MEASURES**

Small Spill: Eliminate all sources of ignition such as flares, flames (including pilot lights) and electrical sparks. Absorb liquid with vermiculite, floor absorbent or other absorbent material. Person not wearing proper personal protective equipment should be excluded from area of spill.

Large Spill: Eliminate all sources of ignition such as flares, flames (including pilot lights) and electrical sparks. Absorb liquid with vermiculite, floor absorbent or other absorbent material. Person not wearing proper personal protective equipment should be excluded from area of spill. Prevent runoff from entering drains, sewers or other waterways. If runoff occurs, notify proper authorities that a spill has occurred.

## **SECTION VII – HANDLING AND STORAGE**

Handling: Containers may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. As with all products of this nature, good personal hygiene is essential. Avoid contact with eyes, skin and clothing. Avoid breathing vapor, mist or spray. Use with good ventilation. Wash hands thoroughly after handling.

Storage: Store drums in a cool area and out of direct sunlight so Stayflex™ 2505 is maintained at 77°F or lower to avoid polymerization which will cause the material to be unsuitable for use. Do not store near food or feed.

Shelf Life: Uncatalyzed Stayflex™ 2505 is stable for three (3) months when stored at 77°F or below in a closed, opaque container out of direct sunlight or other sources of heat. Do not add catalyst directly to the Stayflex™ 2505 in the drum. The catalyst must be incorporated as a separate component in accordance with specific application instructions.

## **SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION**

Exposure Guidelines:

STYRENE MONOMER (100-42-5)

OSHA PEL 100.000 PPM – TWA  
OSHA PEL 200.000 PPM – CEILING

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POLYMER (S)

No exposure limits established

Respiratory Protection: Select NIOSH-approved respirators that provide adequate protection from the concentration levels encountered. Use positive pressure, supplied-air respirators if there is potential for an uncontrolled release, if exposure levels are unknown or under circumstances where air-purifying respirators may not provide adequate protection. Reference OSHA 29 CFR 1910.

Skin Protection: Wear chemical resistant gloves such as: polyvinyl alcohol. To prevent repeated or prolonged skin contact, wear impervious clothing. Replace as often as needed to maintain protection.

Eye Protection: Use OSHA compliant chemical safety goggles.

Engineering Controls: Provide sufficient mechanical ventilation to maintain exposure below exposure limits. Use explosion proof motors and wiring.

HMIS Hazard Rating: Health: 2 Fire: 3 Reactivity: 2

## SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Viscous

Color: White

State: Liquid

Boiling Point: 293° F (145° C) Styrene

Vapor Pressure: 4.3 mmHg @ 68° F (20° C) Styrene

V.O.C. Content:

Coating Category: INDUSTRIAL MAINTENANCE COATINGS

Product V.O.C. Content: 73 g/L \*

\*Grams of V.O.C. per liter of coating as applied per EPA Method 24

Specific Gravity: 1.55

Odor/Threshold: Strong/Pungent - .01-.1 ppm Styrene

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## SECTION X – STABILITY AND REACTIVITY DATA

Chemical Stability: Stable. Avoid heat, open flame and prolonged storage at elevated temperatures.

Hazardous Polymerization: Hazardous polymerization may occur. Avoid exposure to excessive heat, peroxides and polymerization catalysts.

Hazardous Decomposition: May form carbon dioxide, carbon monoxide, toxic fumes and other hydrocarbons.

Incompatibility: Avoid contact with acids, aluminum chloride, amines, excessive heat, halogenated hydrocarbons, halogens, iron chloride, metal salts, peroxides, strong alkalis and strong oxidizing agents.

## SECTION XI – TOXICOLOGICAL INFORMATION

No data

## SECTION XII – ECOLOGICAL INFORMATION

Toxic to aquatic animals. Should not be released into sewage system or other bodies of water.

## SECTION XIII – DISPOSAL CONSIDERATION

Recycle, if possible. Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge this product into lakes, streams, ponds, estuaries, oceans or other waters. For assistance with your waste management needs – including disposal, recycling of drums and waste stream reduction, contact Preferred Solutions, Inc. at 800-522-4522.

## SECTION XIV – TRANSPORT INFORMATION

DOT Information – 49 CFR 172.101

DOT Description: Resin Solution, 3, UN1866, III

Container/Mode: 55-Gal Drum/Truck Package

RQ (Reportable Quantity) – 49 CFR 172.101

<u>Product Quantity (lbs)</u>	<u>Component</u>
2831	STYRENE

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## Other Transportation Information

The Transport Information may vary with the container and mode of shipment.

## SECTION XV – REGULATORY INFORMATION

### US FEDERAL REGULATIONS

TSCA (Toxic Substances Control Act) Status – Components of this product are on the US TSCA Inventory.

### CERCLA RQ – 40 CFR 302.4 (a)

<u>Component</u>	<u>CAS Number</u>	<u>RQ (lbs)</u>
Styrene	100-42-5	1000

### SARA 302 Components – 40 CFR 355 Appendix A

<u>Component</u>	<u>CAS Number</u>	<u>TPQ (lbs)</u>	<u>RQ (lbs)</u>
Vinyl Acetate	108-05-04	1000	5000

### Section 311/312 Hazard Class – 40 CFR 370.2

Immediate (x) Delayed (x) Fire (x) Reactive (x) Sudden Release of Pressure ( )

### SARA 313 Components – 40 CFR 372.65

<u>Component</u>	<u>CAS Number</u>	<u>%</u> (by weight)
Styrene	100-42-5	15.3
Methyl Methacrylate	80-62-6	.58
Vinyl Acetate	108-05-04	.02

### ORGANIC HAZARDOUS AIR POLLUTANTS (HAPs)

40 CFR Part 63 Subpart WWWW and VVVV

<u>HAP Component (s)</u>	<u>CAS Number</u>	<u>%</u> (by weight)
Styrene, Monomer	100-42-5	15.3

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## STATE AND LOCAL REGULATIONS

### California Proposition 65

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance (s) known to the state of California to cause cancer.

Trimethylphosphate  
Naphthalene  
Benzene  
1,4 – Dioxane  
Acetaldehyde

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substances (s) known to the state of California to cause reproductive harm.

Benzene

Styrene, in the presence of air and high temperatures or prolonged exposure of styrene/air mixture to sunlight, can react to form styrene oxide. Styrene oxide is a chemical known to the state of California to cause cancer.

<u>New Jersey RTK Label Information:</u>	<u>CAS Number</u>
Styrene	100-42-5
Methyl Methacrylate	80-62-6
Vinyl Acetate	108-05-4

<u>Pennsylvania RTK Label Information:</u>	<u>CAS Number</u>
Benzene, Ethenyl-	100-42-5
2-propenoic acid, 2-methyl-, Methyl Este	80-62-6
Benzene, Diethenyl-	1321-74-0

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Florida RTK Label Information:

Styrene

CAS Number

100-42-5

Minnesota RTK Label Information:

Ethylbenzene

CAS Number

100-41-4

Massachusetts RTK Label Information:

Styrene

CAS Number

100-42-5

## SECTION XVI – OTHER INFORMATION

**Disclaimer:**

The data presented herein is not intended for use by nonprofessional applicators, or those persons who do not purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer. All guarantees and warranties as to products supplied by Preferred Solutions, Inc. shall have only those guarantees and warranties expressed in writing by the manufacturer. The buyer's sole remedy as to any material claims will be against the applicator of the product. The aforementioned data on this product is to be used as a guide and is subject to change without notice. The information herein is believed to be reliable, but unknown risks may be present. NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING PATENT WARRANTIES OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR USE, ARE MADE BY PREFERRED SOLUTIONS, INC. WITH RESPECT TO OUR PRODUCTS OR INFORMATION SET FORTH HEREIN. To the best of our knowledge, the technical data contained herein is true and accurate at the date of issuance and is subject to change without prior notice. User must contact Preferred Solutions, Inc. to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY PREFERRED SOLUTIONS, INC., EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.