

Safety Data Sheet

SECTION 1: IDENTIFICATION

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE

**PRODUCT CODE: LHA-2903**

PRODUCT DESCRIPTION: LOW HAP WHITE GEL COAT TAP GEL COAT WHITE

HK RESEARCH CORPORATION

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Section 2: Hazard(s): Identification



WORD SIGNAL: DANGER

Route(s) of Exposure: Inhalation, Ingestion, skin and eye contact.

Acute Exposure:

INHALATION: Harmful if inhaled. Effects from exposure may include headaches, fatigue, nausea, sensation of drunkenness, central nervous system depression and pulmonary edema.

SKIN: Harmful if absorbed through skin. Contact causes skin irritation. Prolonged or repeated skin contact can result in defatting and drying of the skin.

EYES: Harmful to eyes. Direct contact with this material causes eye irritation. Symptoms may include stinging, tearing, redness and swelling.

INGESTION: Harmful if swallowed. Single dose oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects, swallowing large amounts may be harmful. Effects from exposure through ingestion may include gastrointestinal disturbances, pain and discomfort. Effects of exposure by ingestion may also include those indicated by the inhalation route. Styrene is harmful or fatal if liquid is aspirated into the lungs. Ingestion is not an anticipated route of exposure for this material in industrial use.

Chronic Exposure: Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans and may aggravate pre-existing disorders of these organs; central nervous system effects, effects on hearing and respiratory tract damage.

Carcinogenicity: This material contains styrene which is listed by the International Agency for Research (IARC) on Cancer as a group 2B cancer causing agent possibly carcinogenic to humans. The National Toxicology Program (NTP) identified styrene as "reasonably anticipated to be a human carcinogen" in the 12th Report on Carcinogens.

Flammability: WARNING! FLAMMABLE LIQUID & VAPOR

Reactivity: CAUTION! UNSTABLE AT HIGH TEMPERATURES

FIRST AID MEASURES

Eye Contact: Immediately flush eyes with large quantities of clean water for at least 15 minutes. Get immediate medical attention.

Skin Contact: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

Ingestion: DO NOT INDUCE VOMITING. ASPIRATION HAZARD: this material may enter the lungs during vomiting. Immediately give the victim one or two glasses of water or milk to drink. Never give anything by mouth to an unconscious person. GET IMMEDIATE MEDICAL ATTENTION.

Inhalation: Remove victim to fresh air. Keep warm and quiet. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. GET IMMEDIATE MEDICAL ATTENTION.

Section 3: Composition/Information on ingredients

1.

CAS# MIXTURE  
UNSATURATED POLYESTER RESIN 26 - 36%  
EXPOSURE LIMIT:  
ACGIH TLV/TWA: 85 mg/m<sup>3</sup>  
OSHA PEL/TWA: 100 ppm  
LD50, ORAL: 5000 mg/kg RAT  
LD50, DERMAL: 2000 mg/kg RAT  
LC50, INHALATION: 11.8 mg/l RAT, 4 HOURS

2.

CAS# 000100-42-5  
STYRENE MONOMER [1] 26%  
VAPOR PRESSURE: 4.3MMHG @ 68F  
EXPOSURE LIMIT:  
ACGIH TLV/TWA: 20 ppm TWA 8 hours  
OSHA PEL/TWA: 100 ppm TWA 8 hours  
LD50, ORAL: 5000 mg/kg RAT  
LD50, DERMAL: 5000+mg/kg RABBIT  
LC50, INHALATION: 11800mg/kg RAT 4 HOURS

3.

CAS# 014807-96-6  
MAGNESIUM SILICATE 19 - 29%  
EXPOSURE LIMIT:  
ACGIH TLV/TWA: 2 mg/m<sup>3</sup>  
OSHA PEL/TWA: 5 mg/m<sup>3</sup>  
LD50, ORAL: NOT AVAILABLE  
LD50, DERMAL: NOT AVAILABLE  
LC50, INHALATION: NOT AVAILABLE

4.

CAS# 013463-67-7  
TITANIUM DIOXIDE 7 - 17%  
EXPOSURE LIMIT:  
ACGIH TLV/TWA: 10 mg/m<sup>3</sup> ACHGIH 2011  
OSHA PEL/TWA: 10 mg/m<sup>3</sup>  
LD50, ORAL: 5000 mg/kg LD50 RAT  
LD50, DERMAL: NO-EFFECT RABBIT  
LC50, INHALATION: 6.82 mg/l RAT-DUST  
AVOID BREATHING DUST

5.

CAS# 000080-62-6  
METHYL METHACRYLATE [1] 3%  
EXPOSURE LIMIT:  
ACGIH TLV/TWA: 50 ppm  
OSHA PEL/TWA: 100 ppm TWA 8 HOURS  
LD50, ORAL: 7900 mg/kg RAT  
LD50, DERMAL: 5000 mg/kg RABBIT  
LC50, INHALATION: 29.8 mg/l RAT, 4 HOURS  
AVOID BREATHING DUST

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS  
AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN  
1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under  
SARA Title III, Section 313

#### Section 4: First-aid measures

##### ROUTE OF EXPOSURE

###### INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

###### SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

###### EYE:

Moderately Irritating. Direct contact may cause temporary corneal lesions. Contact with heated material may cause thermal burns.

###### INHALATION:

SLIGHTLY TOXIC. May cause respiratory tract irritation. May cause harmful central nervous system effects. Effects may include drowsiness, impaired balance, nausea, vomiting, loss of appetite and general weakness-- "Styrene Sickness". May cause blood changes and liver damage. The disagreeable odor and irritation of this material make inhalation of acutely toxic concentrations unlikely.

###### SPECIAL TOXIC EFFECTS:

Carcinogenic determinations: The International Agency for Research on Cancer (IARC) has classified styrene in Group 2B (possibly carcinogenic to humans). This classification is not based on any significant new evidence that styrene may be carcinogenic, but rather on a revised definition for group 2B and consideration of new data on styrene oxide. A number of lifetime animal studies with styrene including those conducted in the NCI bioassay program have not shown styrene to be carcinogenic.

Pre-existing medical conditions which may be aggravated by exposure include, but are not limited to, chronic respiratory and skin disease and central nervous system disorders.

#### \*\*\*\*\* EMERGENCY AND FIRST AID \*\*\*\*\*

###### INGESTION:

DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING LIQUID INTO LUNGS BURNING (IRRITATING) ESOPHAGUS AGAIN.

If spontaneous vomiting monitor for breathing difficulty. Keep affected person warm and at rest. Get immediate medical attention.

###### SKIN CONTACT:

Wash area of contact thoroughly with soap and water. Remove contaminated clothing immediately. Place contaminated clothing in closed container for storage until laundered or discarded. If clothing is to be laundered, inform person performing operation of contaminant's hazardous properties. Get medical attention if irritation persists.

**EYE CONTACT:**

Flush immediately with large amounts of water for 20-30 minutes. Eye lids should be held away from the eyeball to insure thorough rinsing. Get medical attention if irritation persists.

**INHALATION:**

Remove affected person from source of exposure. If breathing is difficult, give oxygen. Keep affected person warm and at rest. Get immediate medical attention.

**Section 5: Fire-fighting measures**

FLASH POINT °C (°F): 30-35 (87-95)

FLAMMABILITY CLASSIFICATION: CLASS 1C

AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)

FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1      UPPER: 6.1

**BASIC FIREFIGHTING PROCEDURES:**

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

**Section 6. Accidental release measures**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

No flares, smoking, flames, sparks & other sources of ignition in hazardous area. Stop leak if you can do it without risk. Use water spray to reduce vapors.

**SMALL SPILLS--**Take up with sand or other noncombustible absorbent material or other sorbent known to be compatible, then flush area with water.

**LARGE SPILLS--**Dike far ahead of spill for later disposal.

**WASTE DISPOSAL METHOD:**

Incinerate in an approved incinerator or dispose of in a chemical dump in accordance with local, state and federal regulations.

**Section 7. Handling and storage**

Store in tightly closed containers in cool, dry, isolated, well-ventilated area away from heat, sources of ignition and incompatibles.

"Empty" containers may contain toxic, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld or reuse containers unless adequate precautions are taken against these hazards.

## Section 8. Exposure controls/personal protection

### EYE PROTECTION:

Wear safety glasses or chemical goggles to prevent eye contact. Do not wear contact lenses when working with this substance. Have eye baths readily available where eye contact can occur.

### SKIN PROTECTION:

Wear impervious gloves and protective clothing to prevent skin contact. Suggested protective materials are: Polyvinyl alcohol, Polyethylene and Viton. Provide safety showers at any location where skin contact can occur.

### RESPIRATORY PROTECTION:

Use NIOSH or MSHA approved equipment when airborne exposure limits are exceeded. NIOSH/MSHA approved breathing equipment may be required for non-routine and emergency use. Ventilation may be used to control or reduce airborne concentrations.

## Section 9. Physical and chemical properties

BOILING POINT, °C (°F): >145 (293)  
VAPOR PRESSURE, mm Hg: <5 @ 20°C (68°F)  
VAPOR DENSITY (AIR=1): 3.6 (styrene)  
SOLUBILITY IN WATER: NEGLIGIBLE  
SPECIFIC GRAVITY (H<sub>2</sub>O=1): 1.39 +/- 5% @ 25°C  
PERCENT VOLATILE (VOC): <1  
EVAPORATION RATE (ETHER=1): <1  
APPEARANCE/ODOR: WHITE LIQUID WITH PUNGENT ODOR  
FLASH POINT °C (°F): 30-35 (87-95)  
FLAMMABILITY CLASSIFICATION: CLASS 1C  
AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)  
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1

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### UNUSUAL FIRE AND EXPLOSION HAZARDS:

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## Section 10. Stability and reactivity

### STABILITY/INCOMPATIBILITY:

Stable under normal conditions of use. Avoid contact with strong oxidizers.

HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS:

Thermal decomposition products may be hazardous. Reacts vigorously with oxidizing agents. "Empty" containers may contain toxic, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld or reuse containers unless adequate precautions are taken against these hazards.

11. Toxicological information

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

SKIN:

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Section 12. Ecological information

Ecotoxicity

Styrene

Bioconcentration factor (BCF) 13.5 - 64

Log Pow 3.16

Toxicity to Aquatic Invertebrates LC50 (48h) 23 mg/l (Daphnia magna)

Freshwater Fish LC50 (96h) 32 mg/l (Pimephales promelas)

Section 13. Disposal considerations

Waste Disposal Method: Hazardous waste. Can be incinerated, when in compliance with local regulations.

Contaminated Packaging: Empty containers should be taken for local recycling, recovery or waste disposal.

US EPA Waste Number: D001 (IGNITABLE): When discarded in its purchased form, this material would be regulated under 40 CFR 261.21 as EPA Hazardous Waste Number D001 based on the characteristic of ignitability.

Section 14. Transport information

DOT

UN-No UN1866  
Proper Shipping Name: RESIN SOLUTION  
Hazard Class CLASS 3  
Packing Group PGIII  
NAERG: 127

TDG

UN-No UN1866  
Proper Shipping Name RESIN SOLUTION  
Hazard Class CLASS 3  
Packing Group PGIII  
NAERG: 127

IATA

UN-No UN1866  
Proper Shipping Name RESIN SOLUTION  
Hazard Class CLASS 3  
Packing Group PGIII  
NAERG: 127

IMDG/IMO

UN-No UN1866  
Proper Shipping Name RESIN SOLUTION  
Hazard Class CLASS 3  
Packing Group PG III  
EmS No. F-E, S-E

Section 15. Regulatory information

Clean Air Act -Hazardous Air Pollutants (HAP): The following chemical(s) are listed as hazardous air pollutants (HAP) under the U.S. Clean Air Act Section 112(b) (1), (40 CFR 61): Styrene (CAS# 100-42-5) See Section 2 of this SDS for amount.

Clean Water Act - Priority Pollutants (PP): Styrene (100-42-5) is listed under Section 311 as a Hazardous Substance.

Occupational Safety and Health Act (OSHA): This material is classified as a hazardous chemical under the criteria of the US Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910.1200.



SARA Title III: Section 304 - CERCLA: Styrene (CAS# 100-42-5):  
Reportable Quantity = 1,000 lb.

SARA Title III: Section 311/312 - Hazard Communication Standard (HCS):  
This is classified as an IMMEDIATE HEALTH HAZARD, DELAYED HEALTH  
HAZARD, FLAMMABILITY HAZARD, and REACTIVITY HAZARD under  
the US Superfund Amendment and Reauthorization Act (Section 311/312)

SARA Title III: Section 313 Toxic Chemical List (TCL): Styrene (100-42-5)

TSCA Section 8(b) - Inventory Status: All components of this material are  
listed on the US Toxic Substances Control Act (TSCA) inventory.

TSCA Section 12(b) - Export Notification: This material does not contain any  
components that are subject to the US Toxic Substances Control Act (TSCA)

Section 12(b) Export Notification requirements.

Canadian Inventory Status: All components of this material are listed on the  
Canadian Domestic Substances List (DSL).

Canadian WHMIS: This material is classified by the Canadian Workplace  
Hazardous Material Information System as: B2 (flammable liquid) D2A  
(materials causing other toxic effects, very toxic material)  
D2B (materials causing other toxic effects, toxic material)  
F (dangerously reactive material)

California Proposition 65: WARNING: This product contains a chemical(s)  
known to the State of California to cause cancer. Styrene Oxide

Additional Canadian Regulatory Information: The following chemicals are  
listed on the WHMIS Ingredient Disclosure List:  
Styrene Monomer (CAS# 100-42-5)

This product has been classified in accordance with the hazard criteria of the  
Controlled Products Regulations and the MSDS contains all the information  
required by the Controlled Products Regulations.

Section 16. Other information

Preparation Date: JUNE 12, 2015

Disclaimer: This information is provided in good faith and is correct to the  
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