

MATERIAL SAFETY DATA SHEET

SECTION I - IDENTIFICATION

TRADE NAME: STYPOL 040-3676
DESCRIPTION: UNSATURATED POLYESTER IN MONOMER
PRODUCT CODE IDENTITY: 0403676B1
NPCA HMIS RATING: H 2 F 3 R 1
REVISION: 06
LAST REVISED : 03/04/2002
DATE OF ISSUE: 11/22/2002
COMPANY NAME: COOK COMPOSITES AND POLYMERS CO.
ADDRESS: 820 E. 14th AVENUE
NORTH KANSAS CITY, MO 64116
PREPARED BY: HAZARD COMMUNICATION DEPT.
INFORMATION TELEPHONE:
COMPOSITES: 1-800-821-3590
POLYMERS: 1-800-488-5541
CUSTOMER:

ATTENTION:

TRANSPORTATION EMERGENCY TELEPHONE (CHEMTREC): 1-800-424-9300

CCP certifies that its products comply with all the provisions of the Toxic Substances Control Act (TSCA), unless otherwise stated by ingredient in Section II.

The percent by weight composition data given in Sections II and X are NOT SPECIFICATIONS, but are based on 'target' formula values for each ingredient in the product. The data are presented as ranges for low hazard ingredients and single point values for ingredients of regulatory concern. Actual batch concentrations will vary within limits consistent with separately established product specifications.

SECTION II INGREDIENTS

1
CAS# 000100-42-5
STYRENE MONOMER
PCT BY WT: 42.5720 VAPOR PRESSURE: 4.500 MMHG @ 68F
EXPOSURE LIMIT:
ACGIH TLV/TWA: 20 PPM (85 MG/CU.M.)
ACGIH TLV/STEL: 40 PPM (170 MG/CU.M.)
OSHA PEL/TWA: 100 PPM (8 HR TWA)
OSHA PEL/CEILING: ACCEPTABLE MAX. PEAK: 600 PPM (5 MIN IN ANY 3 HRS)
OSHA PEL/STEL: ACCEPTABLE CONCENTRATION: 200 PPM (15 MIN TWA)
LD50, Oral: 4.37 G/KG (RAT)
LD50, Dermal: >5 G/KG (RABBIT)
OTHER: LCLO: 5000 PPM/8H (RAT)
OTHER (cont.): NIOSH TWA: 50 PPM (215 MG/M3)
OTHER LIMITS:
IARC - Group 2B See Section V

This product contains one or more reported carcinogens or suspected carcinogens which are noted by NTP, IARC, or OSHA-Z in the appropriate subsection above under OTHER LIMITS.

This substance is classified as a hazardous air pollutant.

SECTION III PHYSICAL DATA

Boiling Range: High- -N/A F Low- 293.0 F

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Vapor Pressure: See Section II
Theoretical Weight per Gallon, Calculated: 9.0857 LB/GL
Theoretical Specific Gravity, Calculated: 1.092
Theoretical VOC, Calculated: 3.875 LB/GL
--If applicable, see Section X for further VOC information--
Physical State: LIQUID
Appearance: BLUE
Odor: PENETRATING
Odor Threshold: -N/A
pH: -N/A
Freezing Point: -N/A
Water Solubility: -N/A
Coefficient of Water/Oil Distribution: -N/A
Mechanical Impact Explosion: -N/A
Static Electricity Explosion: -N/A

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CHARACTERISTICS:

Lowest Closed Cup Flashpoint: 88.0 degrees F
For Flash Points less than 73 deg. F.
OSHA Flammability Classification: Class IB
DOT Flammability Classification: Flammable Liquid
Lower Flammable Limit in Air: Lower- 1.1 % by volume
For Flash Points 73 to 100 deg. F.
OSHA Flammability Classification: Class IC
DOT Flammability Classification: Flammable Liquid
DOT Shipping Name:
Flash Points less than 73 deg. F. = RESIN SOLUTION, 3, UN1866, PG II
Flash Points 73 to 100 deg. F. = RESIN SOLUTION, 3, UN1866, PG III

EXTINGUISHING MEDIA:

Foam, carbon dioxide, dry chemical, water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

If polymerization takes place in a container, there is possibility of violent rupture of the container. Vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks resulting in stoppage of vents. Vapors may cause flash fire. Keep containers tightly closed and isolate from heat, electrical equipment, sparks and flame. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

SPECIAL FIRE FIGHTING PROCEDURES:

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat.

ADDITIONAL TRANSPORTATION INFORMATION:

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Freight Classification:
NMFC: 149980/SUB 2 RESIN COMPOUNDS, LIQUID LTL CLASS 55

SECTION V HEALTH HAZARD DATA

EFFECTS OF EXCESSIVE OVEREXPOSURE. PRIMARY ROUTES OF ENTRY ARE:

EYE CONTACT:

Irritation. Symptoms are tearing, redness and discomfort.

SKIN CONTACT:

Irritation. Can cause defatting of skin which may lead to dermatitis.

INHALATION:

Irritation to nose and throat. Extended or repeated exposure to concentrations above the recommended exposure limits may cause brain or nervous system depression, with symptoms such as dizziness, headache or nausea and if continued indefinitely, loss of consciousness, liver and kidney damage.

Reports have associated repeated and prolonged occupational over-exposure to solvents with permanent brain and nervous system damage.

INGESTION:

May cause mouth, throat, esophagus and stomach irritation, nausea, vomiting and diarrhea. Aspiration into lungs can cause pneumonitis which can be fatal.

MEDICAL CONDITIONS THAT MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

Preexisting eye, skin, liver, kidney and respiratory disorders.

EMERGENCY AND FIRST AID PROCEDURES:

In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If affected by inhalation of vapors or spray mist, remove to fresh air. If swallowed, get medical attention immediately.

CALIFORNIA PROPOSITION 65 INFORMATION:

WARNING - This product contains a chemical(s) known to the State of California to cause cancer.

OTHER HEALTH HAZARDS:

STYRENE MONOMER

The International Agency for Research on Cancer (IARC) has reclassified styrene as Group 2B "possibly carcinogenic to humans". This new classification is not based on new health data relating to either humans or animals, but on a change in the IARC classification system. The Styrene Information and Research Center does not agree with the reclassification and has published the following statement. "Recently published studies tracing 50,000 workers exposed to high occupational levels of styrene over a period of 45 years showed no association between styrene and cancer, no increase in cancer among styrene workers (as opposed to the average among all workers), and no increase in mortality related to styrene."

An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain. Data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic.

Lung effects have been observed in the mouse following repeated exposure to styrene.

Ethylene Glycol is considered to be an animal teratogen as oral administration of very high doses produced birth defects in animals.

Swallowing ethylene glycol can cause kidney damage and central nervous system damage.

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2,6-Di-t-Butyl-p-cresol, in laboratory feeding studies showed effects on newborns, so this material may be a teratogen.
If taken internally, Methyl Alcohol may cause methanol poisoning. Symptoms include severe headache, vomiting, unconsciousness and blurring or loss of vision. Methyl Alcohol exposure can cause damage to liver, heart and kidneys.

Laboratory animals exposed to high doses of Xylene showed evidence of effects in the liver, kidneys, lungs, central nervous system, GI tract, and blood forming elements.

COBALT COMPOUNDS

The International Agency for Research on Cancer (IARC) has classified cobalt and cobalt compounds as Group 2B carcinogens. Group 2B carcinogens are possibly carcinogenic to humans. See IARC Monograph, Volume 52 for additional information.

SECTION VI REACTIVITY DATA

STABILITY: Stable HAZARDOUS POLYMERIZATION: May occur.
CONDITIONS TO AVOID:

Elevated temperatures.

INCOMPATIBILITY (MATERIALS TO AVOID):

Oxidizers, peroxides, strong acids, aluminum chloride and vinyl polymers

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition or combustion can produce fumes containing organic acids, carbon dioxide and carbon monoxide.

SECTION VII SPILL OR LEAK PROCEDURES

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

Remove all sources of ignition (flames, hot surfaces, and electrical, static, or frictional sparks). Avoid breathing vapors. Ventilate area. Contain and remove with inert absorbent and non-sparking tools.

WASTE DISPOSAL METHOD:

Dispose of in accordance with local, state and federal regulations. Do not incinerate closed containers. Incinerate in approved facility.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

Do not breathe vapors. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during use of this product until vapors are exhausted, unless air monitoring demonstrates vapor levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Observe OSHA Standard 29CFR 1910.134.

VENTILATION:

Provide general clean air dilution or local exhaust ventilation in volume and pattern to keep the air contaminant concentration below the lower explosion limit and below current applicable exposure limits. Refer to OSHA Standard 1910.94.

NOTE: Heavy solvent vapors should be removed from lower levels of the work area and all ignition sources (nonexplosion-proof motors, etc.) should be eliminated.

PROTECTIVE GLOVES:

Use solvent impermeable gloves to avoid contact with product.

EYE PROTECTION:

Do not get in eyes. Use safety eyewear with splash guards or side

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shields, chemical goggles, face shields.
OTHER PROTECTIVE EQUIPMENT:
Avoid contact with skin. Use protective clothing. Prevent contact with
contaminated clothing. Wash contaminated clothing, including shoes,
before reuse.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Do not store above 100 deg. F. Store large quantities in buildings
designed to comply with OSHA 1910.106. Keep away from heat, sparks and
flame. Keep containers closed when not in use and upright to prevent
leakage.

OTHER PRECAUTIONS:

Containers should be grounded when pouring. Do not take internally.
Wash hands after using and before smoking or eating. Emptied containers
may retain hazardous residue and explosive vapors. Keep away from heat,
sparks and flames. Do not cut, puncture or weld on or near emptied con-
tainers. Follow all hazard precautions given in this data sheet until
container is thoroughly cleaned or destroyed.

KEEP OUT OF REACH OF CHILDREN FOR INDUSTRIAL USE ONLY

SECTION X Sara Title III Information

SARA 313 INFORMATION:

This product contains the following substances subject to the
reporting requirements of Section 313 of Title III of the Superfund
Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

STYRENE MONOMER

CAS# 000100-42-5 PCT BY WT: 42.5720

DISCLAIMER AND LIMITATION OF LIABILITY

The products sold hereunder shall meet Seller's applicable specifications
at the time of shipment. Seller's specifications may be subject to change
at any time without notice to Buyer. Buyer must give Seller notice in
writing of any alleged defect covered by this warranty (together with all
identifying details, including the Product Code(s), description and date
of purchase) within thirty (30) days of the date of shipment of the product
or prior to the expiration of the shipment's quality life, whichever occurs
first. THE WARRANTY DESCRIBED HEREIN SHALL BE IN LIEU OF ANY OTHER
WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED
WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. THERE
ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF.
The Buyer's sole and exclusive remedy against Seller shall be for the
replacement of the product or refund of the purchase price in the event
that a defective condition of the product should be found to exist by
Seller. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR
CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR
PROPERTY, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE
TO THE BUYER.

The sole purpose of this exclusive remedy shall be to provide Buyer with
replacement of the product or refund of the purchase price of the product
if any defect in material or workmanship is found to exist. This exclusive
remedy shall not be deemed to have failed its essential purpose so long as
Seller is willing and able to replace the defective products or refund the
purchase price.