

## MATERIAL SAFETY DATA SHEET

## SECTION I - IDENTIFICATION

TRADE NAME: STYPOL 040-4042  
 DESCRIPTION: UNSATURATED POLYESTER RESIN IN MONOMER  
 PRODUCT CODE IDENTITY: 0404042B2  
 NPCA HMIS RATING: H 2\* F 3 R 1 LAST REVISED: 08/25/2009  
 PRINT DATE: 01/05/2011

COMPANY NAME: COOK COMPOSITES AND POLYMERS CO.  
 ADDRESS: 820 E. 14th AVENUE PREPARED BY:  
 NORTH KANSAS CITY, MO 64116 CCP PRODUCT STEWARDSHIP  
 CUSTOMER: INFORMATION TELEPHONE:  
 COMPOSITES: 1-800-821-3590  
 POLYMERS: 1-800-488-5541

## ATTENTION:

24 HOUR RESPONSE NUMBER (CHEMTREC): 1-800-424-9300 (NORTH AMERICA)  
 001-703-527-3887 (INTERNATIONAL)  
 FOR MEDICAL EMERGENCIES (PROSAR): 1-800-269-9906

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.

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 \*\*\* 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. \*\*\*  
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## SECTION II INGREDIENTS

1  
 CAS# 027253-31-2  
 COBALT NEODECANOATE, 26% COBALT  
 PCT BY WT: .0400  
 EXPOSURE LIMIT:  
 ACGIH TLV/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME  
 OSHA PEL/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME

2  
 CAS# 000136-52-7  
 COBALT 2-ETHYLHEXANOATE, 12% COBALT  
 PCT BY WT: .1400  
 EXPOSURE LIMIT:  
 ACGIH TLV/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME  
 OSHA PEL/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME

3  
 CAS# 000100-42-5  
 STYRENE MONOMER  
 PCT BY WT: 29.5130 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:

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\* STYPOL 040-4042 \*  
\* MATERIAL SAFETY DATA SHEET \*  
\* 0404042B2 \*  
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IARC - Group 2B See Section V

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4  
CAS# 112945-52-5  
SILICA, AMORPHOUS  
EPA CASN 7631-86-9  
PCT BY WT: 1 - 5  
EXPOSURE LIMIT:  
ACGIH TLV/TWA: 10 MG/M3  
OSHA PEL/TWA: 15 MG/M3-TOTAL DUST; 5 MG/M3-TOTAL RESPIRABLE DUST  
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5  
UNSATURATED POLYESTER RESIN  
ON TSCA AND DSL INVENTORIES CAS# PROPRIETARY  
PCT BY WT: 30 - 40  
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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.  
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SECTION III PHYSICAL DATA

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Boiling Range: High- -N/A F Low- 293.0 F  
Vapor Pressure: See Section II  
Theoretical Weight per Gallon, Calculated: 9.0994 LB/GL  
Theoretical Specific Gravity, Calculated: 1.093  
Theoretical VOC, Calculated: 2.945 LB/GL  
--If applicable , see Section X for further VOC information--  
Physical State: LIQUID  
Appearance: AMBER  
Odor: STYRENE  
Odor Threshold: -N/A  
pH: -N/A  
Freezing Point: -N/A  
Water Solubility: INSOLUBLE  
Coefficient of Water/Oil Distribution: -N/A  
Mechanical Impact Explosion: NO KNOWN HAZARD  
Static Electricity Explosion: AVOID STATIC CHARGE  
% HAP BY WEIGHT 29.631  
% MONOMER BY WEIGHT 29.510  
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SECTION IV FIRE AND EXPLOSION HAZARD DATA

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FLAMMABILITY CHARACTERISTICS:  
Lowest Closed Cup Flashpoint: 88.0 degrees F  
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\*\*\*\*\*  
 \* STYPOL 040-4042 \*  
 \* MATERIAL SAFETY DATA SHEET \*  
 \* 0404042B2 \*  
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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:

DOT Shipping Name:

Flash Points less than 73 deg. F. = UN1866, RESIN SOLUTION, 3, PG II

Flash Points 73 to 100 deg. F. = UN1866, RESIN SOLUTION, 3, 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:

Freight Classification:

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

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 SECTION V HEALTH HAZARD DATA  
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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

\*\*\*\*\*  
\* STYPOL 040-4042 \*  
\* MATERIAL SAFETY DATA SHEET \*  
\* 0404042B2 \*  
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with soap and water. If affected by inhalation of vapors or spray mist, remove to fresh air. If swallowed, get medical attention immediately.  
Based on the presence of components (\*\*,\*\*,03)

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.

2,4-PENTANEDIONE

Repeated exposure to high concentrations of 2,4-Pentanedione (over 300 ppm) may lead to harmful central system, immune system and red blood cell effects.

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SECTION VI REACTIVITY DATA  
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STABILITY: Stable HAZARDOUS POLYMERIZATION: May occur.

CONDITIONS TO AVOID:

Elevated temperatures.

INCOMPATIBILITY (MATERIALS TO AVOID):

Oxidizers, reducing agents, peroxides, strong acids, bases, UV light, or any source of free radicals and mild steel.

HAZARDOUS DECOMPOSITION PRODUCTS:

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

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SECTION VII SPILL OR LEAK PROCEDURES  
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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.

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SECTION VIII SPECIAL PROTECTION INFORMATION  
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RESPIRATORY PROTECTION:

Do not breathe vapors. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during use of this product until vapors are ex-

\*\*\*\*\*  
\* STYPOL 040-4042 \*  
\* MATERIAL SAFETY DATA SHEET \*  
\* 0404042B2 \*  
\*\*\*\*\*

hausted, 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 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.

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SECTION IX SPECIAL PRECAUTIONS  
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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 containers. 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  
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SECTION X Sara Title III Information  
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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:

COBALT NEODECANOATE, 26% COBALT  
CAS# 027253-31-2 PCT BY WT: .0400  
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COBALT 2-ETHYLHEXANOATE, 12% COBALT  
CAS# 000136-52-7 PCT BY WT: .1400  
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STYRENE MONOMER  
CAS# 000100-42-5 PCT BY WT: 29.5130  
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COOK COMPOSITES AND POLYMERS CO.  
WARRANTIES, DISCLAIMERS AND LIMITATION OF LIABILITY (REV. 03/09)  
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Seller warrants that: (i) Buyer shall obtain good title to the product sold hereunder; (ii) at Shipment such product shall conform to Seller's specifications; and (iii) the sale or use of such product will not infringe

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 \* STYPOL 040-4042 \*  
 \* MATERIAL SAFETY DATA SHEET \*  
 \* 0404042B2 \*  
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the claims of any U.S. patent covering the product itself, but Seller does not warrant against infringement which might arise by the use of said product in any combination with other products or arising in the operation of any process. SELLER MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, EVER IF THAT PURPOSE IS KNOWN TO SELLER. ANY APPLICATION INFORMATION OR ASSISTANCE WHICH SELLER MAY FURNISH TO BUYER IS GRATUITOUS AND SHALL IN NO WAY BE DEEMED PART OF THE SALE OF PRODUCT HEREUNDER OR A WARRANTY OF THE RESULTS OBTAINED THROUGH THE USE OF SUCH PRODUCT.

Without limiting the generality of the foregoing, if any product fails to meet warranties mentioned above, Seller shall at Seller's option either replace the nonconforming product at no cost to Buyer or refund Buyer the purchase price thereof. The foregoing is Buyer's sole and exclusive remedy for failure of Seller to deliver or supply product that meets the foregoing warranties. Seller's liability with respect to this contract and the product purchased under it shall not exceed the purchase price of the portion of such product as to which such liability arises. Seller shall not be liable for any injury, loss, or damage resulting from the handling or use of the product shipped hereunder whether in the manufacturing process or otherwise. In no event shall Seller be liable for special, incidental, or consequential damages including without limitations loss of profits, capital or business opportunity, downtime costs, or claims of customers or employees of Buyer. Failure to give Seller notice of any claim within thirty (30) days of shipment of the product concerned shall constitute a waiver of such claim by Buyer. Any product credit received by Buyer hereunder, if not used, shall automatically expire one (1) year from the date the credit was granted. Notwithstanding any applicable statute of limitations to the contrary, any action by Buyer in relation to a claim hereunder must be instituted no later than two (2) years after the occurrence of the event upon which the claim is based. All the foregoing limitations shall apply irrespective of whether Buyer's claim is based upon breach of contract, breach of warranty, negligence, strict liability, or any other legal theory.