

ASHLAND

MATERIAL SAFETY DATA SHEET

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PAGE: 1
Date Prepared: 10/07/02
Date Printed: 06/10/03
Item: R3573

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I. CHEMICAL PRODUCT INFORMATION

Product Name: HETRON 922 RESIN
General/Generic Name: UNSATURATED POLYESTER RESIN
Product Use: LAMINATING RESIN

II. HAZARDOUS INGREDIENTS

INGREDIENT	TLV	CAS NO	%W/W
STYRENE, MONOMER	50 PPM	100-42-5	40-45

NOTE: N/E-NOT ESTABLISHED N/A-NON APPLICABLE

III. HAZARDS IDENTIFICATION

THRESHOLD LIMIT VALUE:
NOT ESTABLISHED FOR PRODUCT. SEE SECTION II

EYES:
EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.

SKIN/SKIN ABSORPTION:
SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION, DEFATTING, DERMATITIS.

BREATHING:
BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION AND CENTRAL NERVOUS SYSTEM EFFECTS INCLUDING DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE AND POSSIBLE UNCONSCIOUSNESS.

SWALLOWING:
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA. ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

IV. FIRST AID

IF ON SKIN:
THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDRY CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES:
FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED:

DO NOT INDUCE VOMITING, KEEP PERSON WARM, QUIET, AND GET MEDICAL ATTENTION. ASPIRATION OF MATERIAL INTO THE LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

IF BREATHED:

IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET, AND GET MEDICAL ATTENTION.

V. FIRE AND EXPLOSION

FLASH POINT: CLOSED CUP 32 DEG C 90 DEG F
FLAMMABLE LIMITS: LFL: 1.1 % UFL: 7.0 % N/E: - COMPONENT:1
AUTO IGNITION TEMPERATURE: N/E DEG C
EXTINGUISHING MEDIA: (X)FOAM (X)WATER FOG (X)DRY CHEMICAL (X)CARBON DIOXIDE

HAZARDOUS COMBUSTIBLE PRODS:

CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

FIGHT PROCEDURES:

WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE WHEN FIGHTING FIRES.

SPECIAL F-E HAZARDS:

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.

ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

VI. ACCIDENTAL RELEASE

STEPS TO BE TAKEN IN CASE MATERIAL RELEASES OR SPILLED

SMALL SPILL:

ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL:

ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE, DIKE AREA OF SPILL TO PREVENT

SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS.

VII. HANDLING AND STORAGE

WASH THOROUGHLY AFTER HANDLING. DO NOT TRANSFER TO AN UNMARKED CONTAINER. KEEP CONTAINER CLOSED WHEN NOT IN USE. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS RESIDUES. USE OR STORE WITH ADEQUATE VENTILATION. KEEP AWAY FROM HEAT, SPARKS AND FLAMES.

VIII. EXPOSURE CONTROLS

RESPIRATORY PROTECTION:

IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION II), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR RESISTANT GLOVES (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER).

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER EQUIPMENT PROTECTION:

TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

IX. PHYSICAL AND CHEMICAL PROPERTIES

INITIAL BOILING PT: COMPONENT(1) 145 DEG C 293 DEG F @ 760 MMHG
VAPOUR PRESSURE: COMPONENT(1) 4.5 MMHG 20 DEG C 68 DEG F
VAPOUR DENSITY: HEAVIER THAN AIR
EVAPORATION RATE: SLOWER THAN ETHER
PHYSICAL STATE: LIQUID
CORU THRESHOLD: N/E
FREEZING PT: N/E DEG C
PH: N/E

SPECIFIC GRAVITY: 1.05 @25 DEG C 77 DEG F
% VOLATILE: 40-45%

APPEARANCE AND ODOUR
AMBER LIQUID, STYRENE ODOUR

X. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION:

CAN OCCUR - AVOID EXPOSURE TO EXCESSIVE HEAT, PEROXIDES AND
POLYMERIZATION CATALYSTS.

STABILITY:

STABLE.

INCOMPATIBILITY:

AVOID CONTACT WITH:

STRONG ALKALIES.

STRONG MINERAL ACIDS.

HAZARDOUS DECOMP PRODUCTS:

NOT APPLICABLE

XI. TOXICOLOGICAL INFORMATION

REGULATIONS CONTROLLING THE LEVEL OF WORKER EXPOSURE TO STYRENE

	TWA (PPM)	STEL (PPM)	
CANADA (FEDERAL REGULATION)	50	100	NOTE 1
ONTARIO	50	200	NOTE 2
QUEBEC	50	100	
MANITOBA	50	100	NOTE 1
SASKATCHEWAN	50	100	NOTE 3
ALBERTA	50	100	
BRITISH COLUMBIA	50	75	
NEW BRUNSWICK	50	100	NOTE 1
NOVA SCOTIA	50	100	NOTE 1
PRINCE EDWARD ISLAND	--	--	NOTE 3
NEWFOUNDLAND	50	100	NOTE 1

NOTE 1: FOLLOWS ACGIH GUIDELINES OF TWA-50 PPM AND STEL-100 PPM.

NOTE 2: RESPIRATORS MUST BE WORN WHERE THE LEVEL OF STYRENE IS BETWEEN
50 PPM AND 100 PPM.

NOTE 3: RESPONSIBILITY OF EMPLOYER INCLUDES THE INVENTORY LISTING OF
ALL MATERIALS USED, AND ALL RELATED HEALTH HAZARDS.

OVEREXPOSURE TO STYRENE HAS APPARENTLY BEEN FOUND TO CAUSE THE
FOLLOWING EFFECTS IN LABORATORY ANIMALS:

LIVER ABNORMALITIES
KIDNEY DAMAGE
LUNG DAMAGE

STYRENE MONOMER LD:50 (ORL-RAT) 2650 MG/KG
 LC:50 (INH-RAT) 2800 PPM/4H
 LD:50 (SKN-RBT) > 630 mg/kg
 LD:50 (SKN-RAT) 2820 mg/kg

IARC CLASSIFIED STYRENE MONOMER AS "POSSIBLY CARCINOGENIC TO HUMANS"

ACGIH - SHORT TERM EXPOSURE LIMIT (STEL) FOR STYRENE MONOMER IS 100 PPM. THE OSHA ACCEPTABLE CEILING CONCENTRATION IS 200 PPM. THE ACCEPTABLE MAXIMUM PEAK ABOVE THE ACCEPTANCE CEILING CONCENTRATION FOR AN 8-HOUR SHIFT IS 600 PPM FOR A MAXIMUM DURATION OF 5 MINUTES IN ANY 3 HOURS. NIOSH RECOMMENDS A LIMIT OF 50 PPM, 8-HOUR TWA; 100 PPM 15 MINUTE CEILING.

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.

XII. ECOLOGICAL INFORMATION

NOT ESTABLISHED.

XIII. DISPOSAL CONSIDERATIONS

SMALL SPILL:

DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

LARGE SPILL:

DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

COMMENTS:

PRODUCT DISPOSAL INFORMATION

This product may be classified as a liquid industrial waste or a registerable solid waste and may be subject to waste generator

requirements.

.
Containers of this material 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.

.
Metal and plastic containers may be recycled. Please contact your Drum Reconditioner for further information.

XIV. TRANSPORTATION INFORMATION

SHIP NAME: RESIN SOLUTION, FLAMMABLE

UN NUMBER: 1866

CLASS: 3

PACKING GROUP: III

XV. REGULATORY INFORMATION

WHMIS Classification: B2 D2A D2B F

DSL Status: ON DSL

INTERNATIONAL INVENTORY STATUS:

XVI. OTHER INFORMATION

DISCLAIMER :

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

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