

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTITY/TRADE NAME: KIWODUR 933

MANUFACTURER: KISSEL & WOLF, POB 1326, D6908 WIESLOCH, WEST GERMANY

IMPORTER: KIWO, INC.

ADDRESS: 1929 MARVIN CIRCLE, P.O. BOX 1009, SEABROOK, TX 77586

INFORMATION TELEPHONE NUMBER: 281-474-9777

HAZARD DATA SECTION

HAZARDOUS INGREDIENTS	% RANGE	CAS #
ETHYL ACETATE	20-40%	141-78-6
POLYFUNCTIONAL ISOCYANATE	60-80%	NOT AVAILABLE
(CONTAINS FREE TOLUENE,2,4 DIISOCYANATE (TDI)	<0.5%	

-BOILING POINT: APPROX. 77°C VAPOR PRESSURE: <100 mm Hg @ 27°C

SOLUBILITY: RESINS INSOLUBLE IN WATER, ETHYL ACETATE SOLUBLE

SPECIFIC GRAVITY: 1.17

APPEARANCE AND ODOR: RED-TRANSPARENT LIQUID, ESTER ODOR

PHYSICAL HAZARD DATA

COMPRESSED GAS: NO PYROPHORIC: NO

OXIDIZER: NO ORGANIC PEROXIDE: NO

FLAMMABLE/COMBUSTIBLE: YES FLASH POINT: 25°F (-4°C)

EXTINGUISHING MEDIA: DRY CHEMICAL, CO₂, WATER FOG, FOAM.

SPECIAL FIREFIGHTING PROCEDURES: KEEP EXPOSED CONTAINERS COOL, MAY RUPTURE AND BURN. USE SCBA WHERE THIS MATERIAL IS INVOLVED IN A FIRE.

EXPLOSIVE: YES LEL: 2.2 UEL: 11.5% (ESTIMATED FROM ETHYL ACETATE)

REACTIVITY/INCOMPATIBILITY: CAN REACT VIGOROUSLY WITH SIMPLE ALCOHOLS. REACTS WITH WATER.

SPECIAL STORAGE PRECAUTIONS: KEEP TIGHTLY CLOSED IN A COOL, WELL VENTILATED AREA. STORE AS AN OSHA FLAMMABLE LIQUID. GELS AT FREEZING TEMPERATURES, REVERSE BY WARMING TO ROOM TEMPERATURE.

HEALTH HAZARD DATA

ACUTE EFFECTS OF OVEREXPOSURE: AT HIGH CONCENTRATIONS, IRRITATING TO EYES, NOSE, AND THROAT, RESPIRATORY SYSTEM AND CENTRAL NERVOUS SYSTEM. DEPRESSION, HEADACHE, DIZZINESS MAY FOLLOW. DIRECT LIQUID CONTACT CAN CAUSE IRRITATION. ALLERGIC SKIN AND/OR RESPIRATORY SENSITIVITY MAY OCCUR IN SOME INDIVIDUALS. RESPIRATORY SENSITIVITY CAN RESULT IN ASTHMA-LIKE SYMPTOMS UPON SUBSEQUENT EXPOSURE, EVEN BELOW THE TLV.

CHRONIC EFFECTS OF OVEREXPOSURE: REPEATED /PROLONGED SKIN EXPOSURE MAY CAUSE DERMATITIS.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: EXISTING DERMATITIS

PRIMARY ROUTE(S) OF EXPOSURE: EYE, SKIN, INHALATION

LISTED CARCINOGEN: CONTAINS LESS THAN 0.5% UNREACTED TDI WHICH IS LISTED IN THE 4TH ANNUAL NTP REPORT AS A SUBSTANCE WHICH MAY BE REASONABLY ANTICIPATED TO BE A CARCINOGEN.

EXPOSURE LIMITS	OSHA PEL	ACGIH TLV	ACGIH STEL
ETHYL ACETATE	400 PPM	400 PPM	-----
ACETONE	1000 PPM	750 PPM	1000 PPM
TDI	0.02 PPM	0.005 PPM	0.02 PPM

FIRST AID: EYES -FLUSH WITH WATER FOR 15 MINUTES, SEEK MEDICAL ATTENTION. SKIN- REMOVE ALL CONTAMINATED CLOTHING, REMOVE AS MUCH AS POSSIBLE THEN WASH WITH ISOPROPYL ALCOHOL, THEN SOAP AND WATER. INHALATION- REMOVE VICTIM TO FRESH AIR.

SAFE HANDLING PROCEDURES

HYGIENIC PRACTICES: AVOID SKIN CONTACT.

SPECIAL PROTECTIVE MEASURES FOR REPAIR/MAINTENANCE OF CONTAMINATED EQUIPMENT: USE ADEQUATE VENTILATION AND FOLLOW ALL MSDS PRECAUTIONS.

SPILL HANDLING/CLEAN-UP: REMOVE ALL SOURCES OF IGNITION. USE RESPIRATORY PROTECTION IF CONCENTRATIONS ARE LIKELY TO EXCEED RECOMMENDED EXPOSURE LIMITS. DECONTAMINATE THE AREA USING A SOLUTION OF 20 PTS ISOPROPYL ALCOHOL, 40 PTS AMMONIA, 2-5 PTS OF SOAP, AND 35 PTS WATER. IN A SMALL UNVENTILATED AREA, THE AMMONIA CAN CREATE A PROBLEM, AND ANOTHER SOLUTION MAY BE USED.

CONTROL MEASURES

RECOMMENDED ENGINEERING CONTROLS: USE LOCAL EXHAUST OR GENERAL VENTILATION TO KEEP EXPOSURE LEVELS BELOW LIMITS.

RECOMMENDED WORK PRACTICES: AVOID SKIN CONTACT, AVOID BREATHING VAPORS

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: NOT USUALLY REQUIRED

GLOVES: PVC, NITRILE, OR OTHER IMPERVIOUS GLOVES AS NEEDED TO PREVENT SKIN CONTACT.

EYE PROTECTION: SAFETY GOGGLES RECOMMENDED

OTHER: EYE WASH, IMPERVIOUS APRON IF NEEDED.

REGULATORY STATUS

TSCA - ALL INGREDIENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY

THE FOLLOWING CHEMICAL INGREDIENTS ARE REGULATED UNDER PROPOSITION 65 OF THE STATE OF CALIFORNIA

TOLUENE,2,4-DIISOCYANATE (TDI) <0.5% CAS # 584-84-9

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS 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 (SARA 313 - TOXIC CHEMICAL RELEASE REPORTING.)

	%	CAS #
TOLUENE,2,4-DIISOCYANATE (TDI)	<0.5	584-84-9
VOC'S	699.4 G/LITER	5.82 LBS/GALLON

COMMENTS: FOR INDUSTRIAL / COMMERCIAL USE ONLY

DATE PREPARED/UPDATED:, MAY 3, 2001
 PREPARED BY: CLARK KING, EXEC. V.P., KIWO, INC.