

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTITY/TRADE NAME: KIWODUR RD

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 NUMBER |
|--|--------|---------------|
| ETHYL ACETATE | 15-35% | 141-78-6 |
| POLYFUNCTIONAL ISOCYANATE FREE TOLUENE | <0.5% | NOT AVAILABLE |
| DIISOCYANATE (TDI),2,4- | 68-85% | 584-84-9 |

BOILING POINT: 77°C VAPOR PRESSURE: 86 mm Hg (Ethyl Acetate)

SOLUBILITY: NONE IN WATER DENSITY: 1.17 G/CM³

APPEARANCE AND ODOR: TRANSPARENT LIQUID, ESTER ODOR

PHYSICAL HAZARD DATA

COMPRESSED GAS: NO

PYROPHORIC: NO OXIDIZER: NO ORGANIC PEROXIDE: NO

FLAMMABLE/COMBUSTIBLE: YES FLASH POINT: 34°F

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

SPECIAL FIRE FIGHTING PROCEDURES: PROTECT CONTAINERS FROM HEAT, MAY RUPTURE AND BURN, USE SCBA WHERE THIS MATERIAL IS INVOLVED IN A FIRE.

EXPLOSIVE: YES LEL: 2.2% UEL: 11.0%

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

SPECIAL STORAGE PRECAUTIONS: STORE IN COOL PLACE. STORE AS FLAMMABLE LIQUID, AT FREEZING TEMPERATURE-GELS. 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, ETC. DIRECT SKIN 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: PROLONGED OR FREQUENT CONTACT CAN CAUSE DERMATITIS.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: DERMATITIS

PRIMARY ROUTE(S) OF EXPOSURE: SKIN, EYE, RESPIRATORY SYSTEM

LISTED CARCINOGEN: CONTAINS <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: | ETHYL ACETATE | TDI |
|------------------|---------------|-----------|
| OSHA PEL: | 400 PPM | 0.02 PPM |
| ACGIH TLV: | 400 PPM | 0.005 PPM |
| ACGIH STEL: | ----- | 0.02 PPM |

FIRST AID: SKIN CONTACT-REMOVE MATERIAL AS MUCH AS POSSIBLE THEN WASH WITH ISOPROPYL ALCOHOL, THEN SOAP AND WATER. EYE-FLUSH THOROUGHLY WITH WATER-SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS. INHALATION-REMOVE TO FRESH AIR, ADMINISTER OXYGEN OR ARTIFICIAL RESPIRATION IF REQUIRED, SEEK MEDICAL ATTENTION. INGESTION-SEEK MEDICAL ATTENTION, DO NOT INDUCE VOMITING.

SAFE HANDLING PROCEDURES

HYGIENIC PRACTICES: AVOID SKIN CONTACT

SPECIAL PROTECTIVE MEASURES DURING REPAIR/MAINTENANCE OF CONTAMINATED EQUIPMENT: USE ADEQUATE VENTILATION.

SPILL HANDLING/CLEAN-UP: CONTAIN. 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. DETERGENT AND 35 PTS. WATER. IN A SMALL, UNVENTILATED AREA THE AMMONIA CAN CREATE A PROBLEM. IN THOSE AREAS ANOTHER SOLUTION MAY BE USED.

CONTROL MEASURES

RECOMMENDED ENGINEERING CONTROLS: GENERAL OR LOCAL EXHAUST VENTILATION TO KEEP CONCENTRATIONS BELOW RECOMMENDED LEVELS.

RECOMMENDED WORK PRACTICES: AVOID SKIN CONTACT, AVOID BREATHING VAPORS

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: NOT USUALLY REQUIRED

GLOVES: USE GLOVES RECOMMENDED FOR USE WITH THE SOLVENTS PRESENT.

EYE PROTECTION: CHEMICAL GOGGLES RECOMMENDED.

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

| | % | CAS # |
|-----------------------------------|------|----------|
| TOLUENE, 2, 4- DIISOCYANATE (TDI) | <0.5 | 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.)

TOLUENE-2,4 DIISOCYANATE (TDI) <5%

VOC'S 292 G/LITER 2.44 LBS/GALLON

COMMENTS: FOR COMMERCIAL/INDUSTRIAL USE ONLY

DATE PREPARED/UPDATED: FEB 3, 2004
PREPARED BY: CLARK KING, EXEC. VP, KIWO, INC.