

WOODRISING RESOURCES LTD.  
#2 321 37 AVE. N.E.  
CALGARY, ALBERTA  
CANADA T2E 6P6  
403-216-2130

PRODUCT: PARATENE® X-115

CODE: 241056

**Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

MANUFACTURER/SUPPLIER..... WOODRISING RESOURCES LTD.  
#2 321 37 AVE. N.E.  
CALGARY, ALBERTA  
CANADA T2E 6P6  
403-216-2130

PREPARED BY..... Regulatory Affairs  
PREPARATION DATE..... Sep10/08  
PRODUCT NAME..... PARATENE® X-115  
PRODUCT CODE..... 241056  
CHEMICAL FORMULA..... BLEND.  
MOLECULAR WEIGHT..... N.AV.  
MATERIAL USE..... REFER TO TECHNICAL LITERATURE.  
EMERGENCY PHONE NO..... 403-216-2130 .... between the hours of 9:00 and 17:00 MST.

**Section 02: COMPOSITION/INFORMATION ON INGREDIENTS**

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route, Species	LC/50 Route, Species
REFORMATE NAPHTHA, HEAVY	60-100	SEE SECTION 11	64741-68-0	SEE SECTION 11	SEE SECTION 11
XYLENE (MIXED ISOMERS)	10-30	SEE SECTION 11	1330-20-7	SEE SECTION 11	SEE SECTION 11
ETHYLBENZENE	7-13	SEE SECTION 11	100-41-4	SEE SECTION 11	SEE SECTION 11
METHYL ETHYL KETONE (MEK)	3-7	SEE SECTION 11	78-93-3	SEE SECTION 11	SEE SECTION 11

**Section 03: HAZARDS IDENTIFICATION**

ROUTE OF ENTRY:  
SKIN CONTACT..... IRRITATING TO SKIN.  
SKIN ABSORPTION..... MAY BE ABSORBED THROUGH THE SKIN.  
EYE CONTACT..... VAPOURS ARE IRRITATING TO THE EYES.  
INHALATION..... VAPOURS ARE IRRITATING TO THE RESPIRATORY TRACT.  
INGESTION..... INGESTION OF THIS PRODUCT MAY CAUSE HEADACHE, DIZZINESS, FATIGUE AND CENTRAL NERVOUS SYSTEM DEPRESSION. THE LIQUID WHEN ACCIDENTLY ASPIRATED INTO LUNGS CAN CAUSE A SEVERE INFLAMMATION OF THE LUNG.

EFFECTS OF ACUTE EXPOSURE..... SEE ABOVE.  
EFFECTS OF CHRONIC EXPOSURE..... PROLONGED AND REPEATED CONTACT WITH SKIN CAN CAUSE DEFATTING AND DRYING OF THE SKIN RESULTING IN SKIN IRRITATION AND DERMATITIS. PROLONGED EXPOSURE TO HIGH VAPOUR CONCENTRATION CAN CAUSE HEADACHE, DIZZINESS, NAUSEA, BLURRED VISION AND CENTRAL NERVOUS SYSTEM DEPRESSION.

ADDITIONAL INFORMATION..... METHYL ETHYL KETONE HAS BEEN REPORTED TO POTENTIATE THE LIVER AND KIDNEY TOXICITY OF HALOALKANE SOLVENTS. METHYL ETHYL KETONE HAS BEEN REPORTED TO POTENTIATE THE NEUROTOXIC EFFECTS CAUSED BY EITHER N-HEXANE OR METHYL-N- BUTYL KETONE. METHYL ETHYL KETONE BY ITSELF DOES NOT CAUSE A PERIPHERAL NEUROPATHY. XYLENE HAS BEEN FOUND TO CAUSE CARDIAC, LIVER AND KIDNEY EFFECTS, ANEMIA AND EYE DAMAGE IN LABORATORY ANIMALS. PROLONGED AND REPEATED INHALATION OF HYDROCARBON SOLVENTS SUCH AS XYLENE CAN CAUSE CHRONIC NEUROLOGICAL DISTURBANCES. CHRONIC EXPOSURE TO XYLENE HAS BEEN SHOWN TO CAUSE HEARING LOSS IN EXPERIMENTAL ANIMALS.

PRE-EXISTING CONDITIONS..... PRE-EXISTING EYE, SKIN AND RESPIRATORY CONDITIONS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

**Section 04: FIRST AID MEASURES**

INSTRUCTIONS:..... EYE CONTACT:.. FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. OBTAIN MEDICAL ATTENTION AS SOON AS POSSIBLE AFTER FIRST AID HAS BEEN INITIATED AND COMPLETED. SKIN CONTACT:.. FLUSH SKIN WITH WATER FOR 15 MINUTES. WASH WITH SOAP AND PLENTY OF WATER. REMOVE CONTAMINATED CLOTHING WHILE RINSING. IF IRRITATION OCCURS AND PERSISTS, OBTAIN MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. GUARD AGAINST ASPIRATION INTO LUNGS BY HAVING THE INDIVIDUAL TURN ON

PRODUCT: PARATENE® X-115

CODE: 241056

**Section 04: FIRST AID MEASURES**

INSTRUCTIONS:..... TO THEIR LEFT SIDE. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. OBTAIN MEDICAL ATTENTION IMMEDIATELY. INHALATION:.. REMOVE VICTIM FROM FURTHER EXPOSURE AND RESTORE BREATHING, IF REQUIRED. OBTAIN MEDICAL ATTENTION.

NOTES TO PHYSICIAN:..... THE MAIN HAZARD FOLLOWING ACCIDENTAL INGESTION IS ASPIRATION OF THE LIQUID INTO THE LUNGS PRODUCING CHEMICAL PNEUMONITIS. IF MORE THAN 2.0 ML/KG HAS BEEN INGESTED, VOMITING SHOULD BE INDUCED WITH SUPERVISION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE VOMITING, GASTRIC LAVAGE WITH A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

**Section 05: FIRE FIGHTING MEASURES**

FLAMMABILITY..... FLAMMABLE LIQUID.  
 IF YES, UNDER WHICH CONDITIONS?..... EXCESSIVE HEAT, SPARKS AND OPEN FLAME.  
 EXTINGUISHING MEDIA..... CARBON DIOXIDE, DRY CHEMICAL, FOAM. WATER FOG.  
 SPECIAL PROCEDURES..... FLAMMABLE. VAPOURS FORM A FLAMMABLE/EXPLOSIVE MIXTURE WITH AIR BETWEEN UPPER AND LOWER FLAMMABLE LIMITS. DO NOT ENTER CONFINED FIRE SPACE WITHOUT ADEQUATE PROTECTIVE CLOTHING AND AN APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS. DO NOT USE WATER EXCEPT AS A FOG. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER. CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOUR PRESSURE BUILD UP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

FLASH POINT (C), METHOD..... -7 (AS PER MEK). (T.C.C.).  
 AUTO IGNITION TEMPERATURE..... N.AV.  
 UPPER FLAMMABLE LIMIT (% BY VOL.).... N.AV.  
 LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AV.  
 EXPLOSION DATA..... N.AV.  
 EXPLOSIVE POWER..... N.AV.  
 RATE OF BURNING..... N.AV.  
 SENSITIVITY TO STATIC DISCHARGE..... YES.  
 SENSITIVITY TO IMPACT..... N.AV.  
 UNUSUAL FIRE AND EXPLOSION ..... VAPOURS MAY TRAVEL TO A SOURCE OF IGNITION AND FLASH BACK.  
 HAZARDS  
 HAZARDOUS COMBUSTION PRODUCTS.. CARBON DIOXIDE, CARBON MONOXIDE, METHYL VINYL KETONE.

**Section 06: ACCIDENTAL RELEASE MEASURES**

LEAK/SPILL..... ISSUE WARNING "FLAMMABLE". ELIMINATE ALL SOURCES OF IGNITION. HANDLING EQUIPMENT MUST BE GROUNDED. ISOLATE HAZARD AREA AND RESTRICT ACCESS. TRY TO WORK UP WIND OF SPILL. AVOID DIRECT CONTACT WITH MATERIAL. WEAR APPROPRIATE BREATHING APPARATUS (IF APPLICABLE) AND PROTECTIVE CLOTHING. STOP LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN SPILL. USE WATER FOG TO KNOCK DOWN VAPOURS; CONTAIN RUN-OFF. ABSORB RESIDUE OR SMALL SPILLS WITH ABSORBENT MATERIAL AND REMOVE TO NON-LEAKING CONTAINERS FOR DISPOSAL. RECOMMENDED MATERIALS: CLAY OR SAND. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. AVOID CONTAMINATION OF DRINKING WATER, NATURAL WATER, GROUND WATER OR ANY WATERWAY.

**Section 07: HANDLING AND STORAGE**

HANDLING PROCEDURES AND ..... FLAMMABLE. ELIMINATE ALL IGNITION SOURCES. AVOID CONTACT WITH EYES, EQUIPMENT SKIN AND CLOTHING. AVOID INGESTION. AVOID INHALING. WEAR PROTECTIVE EQUIPMENT DURING HANDLING. AVOID PROLONGED EXPOSURE TO VAPOURS. EMPTY CONTAINERS ARE HAZARDOUS, MAY CONTAIN FLAMMABLE/EXPLOSIVE DUSTS, LIQUID RESIDUE OR VAPOURS. FOLLOW LABEL WARNINGS EVEN AFTER CONTAINER IS EMPTIED. KEEP AWAY FROM SPARKS AND OPEN FLAMES. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT TO AVOID STATIC ACCUMULATION. HOT SURFACES MAY BE SUFFICIENT TO IGNITE LIQUID EVEN IN THE ABSENCE OF SPARKS OR FLAMES. VAPOURS MAY ACCUMULATE AND TRAVEL TO DISTANT IGNITION SOURCES AND FLASHBACK. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPOURS ARE GONE. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA BEFORE LAUNDERING. LAUNDRY CONTAMINATED CLOTHING PRIOR TO REUSE. USE GOOD PERSONAL HYGIENE.

PRODUCT: PARATENE® X-115

CODE: 241056

**Section 07: HANDLING AND STORAGE**

STORAGE NEEDS..... STORE IN A COOL, DRY, WELL VENTILATED AREA, AWAY FROM HEAT AND IGNITION SOURCES. USE EXPLOSION PROOF VENTILATION TO PREVENT VAPOUR ACCUMULATION.

**Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION**

GLOVES/ TYPE..... IMPERVIOUS GLOVES. CONTACT GLOVE MANUFACTURER FOR SPECIFIC INFORMATION.  
 RESPIRATORY/TYPE..... IF EXPOSURE EXCEEDS OCCUPATIONAL EXPOSURE LIMITS, USE AN APPROPRIATE NIOSH-APPROVED RESPIRATOR. USE A NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATOR WITH ORGANIC VAPOUR CARTRIDGES OR USE A NIOSH-APPROVED SUPPLIED-AIR RESPIRATOR. FOR HIGH AIRBORNE CONCENTRATIONS, USE A NIOSH-APPROVED SUPPLIED-AIR RESPIRATOR, EITHER SELF-CONTAINED OR AIRLINE BREATHING APPARATUS, OPERATED IN POSITIVE PRESSURE MODE.  
 EYE/TYPE..... CHEMICAL SAFETY GOGGLES AND/OR FULL FACE SHIELD TO PROTECT EYES AND FACE, IF PRODUCT IS HANLED SUCH THAT IT COULD BE SPLASHED INTO EYES.  
 FOOTWEAR/TYPE..... CHEMICAL RESISTANT.  
 CLOTHING/TYPE..... IMPERVIOUS CLOTHING.  
 OTHER/TYPE..... EYEWASH AND SAFETY SHOWER SHOULD BE READILY AVAILABLE.  
 ENGINEERING CONTROLS..... MECHANICAL VENTILATION IS RECOMMENDED FOR ALL INDOOR SITUATIONS TO CONTROL FUGITIVE EMISSIONS. ELECTRICAL AND MECHANICAL EQUIPMENT SHOULD BE EXPLOSION-PROOF. CONCENTRATIONS IN AIR SHOULD BE MAINTAINED BELOW THE RECOMMENDED THRESHOLD LIMIT VALUE IF UNPROTECTED PERSONNEL ARE INVOLVED. MAKE-UP AIR SHOULD ALWAYS BE SUPPLIED TO BALANCE AIR EXHAUSTED (EITHER GENERALLY OR LOCALLY). LOCAL VENTILATION RECOMMENDED WHERE MECHANICAL VENTILATION IS INEFFECTIVE IN CONTROLLING AIRBORNE CONCENTRATIONS BELOW THE RECOMMENDED OCCUPATIONAL EXPOSURE LIMIT.

**Section 09: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE..... LIQUID.  
 ODOUR..... CHARACTERISTIC.  
 ODOUR THRESHOLD..... N.AV.  
 VAPOUR PRESSURE (MMHG)..... N.AV.  
 VAPOUR DENSITY (AIR=1)..... N.AV.  
 EVAPORATION RATE..... N.AV.  
 BOILING POINT..... 80-235 C.  
 PH..... N.AV.  
 SPECIFIC GRAVITY (WATER=1)..... N.AV.  
 FREEZING POINT..... N.AV.  
 SOLUBILITY IN WATER (% W/W)..... INSOLUBLE.  
 COEFFICIENT OF WATER/OIL DIST..... N.AV.

**Section 10: STABILITY AND REACTIVITY**

CHEMICAL STABILITY:  
 YES..... STABLE.  
 NO, WHICH CONDITIONS?  
 COMPATABILITY WITH OTHER  
 SUBSTANCES:  
 YES  
 NO, WHICH ONES?..... AVOID STRONG OXIDIZING AGENTS.  
 REACTIVITY CONDITIONS?..... AVOID EXCESSIVE HEAT, OPEN FLAMES AND ALL IGNITION SOURCES.  
 HAZARDOUS PRODUCTS OF ..... SEE HAZARDOUS COMBUSTION PRODUCTS.  
 DECOMPOSITION  
 HAZARDOUS POLYMERIZATION..... NO.

**Section 11: TOXICOLOGICAL INFORMATION**

EXPOSURE LIMIT OF MATERIAL..... REFORMATE NAPHTHA, HEAVY : N.AV. XYLENE (MIXED ISOMERS): 100PPM (150 PPM ACGIH STEL). ETHYLBENZENE: 100 PPM (STEL: 125 PPM). METHYL ETHYL KETONE: 200 PPM (TLV).  
 LD 50 OF MATERIAL, SPECIES & ROUTE.. REFORMATE NAPHTHA, HEAVY: N.AV. XYLENE (MIXED MONOMERS): 4300 MG/KG ORAL-RAT; >2000 MG/KG DERMAL-RABBIT. ETHYLBENZENE: ORAL-RAT = 3500 MG/KG; DERMAL-RABBIT = 17.8 ML/KG. METHYL ETHYL KETONE: 2,700 MG/KG (ORAL-RAT), >8,000 MG/KG (DERMAL-RABBIT).  
 LC 50 OF MATERIAL, SPECIES & ROUTE.. REFORMATE NAPHTHA, HEAVY: N.AV. XYLENE (MIXED MONOMERS): 6700 PPM/4 H (INHALATION-RAT). ETHYLBENZENE: INHALATION-RAT = 4000 PPM FOR 4 HOURS. METHYL ETHYL KETONE: 2000 PPM/4H.

PRODUCT: PARATENE® X-115

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**Section 11: TOXICOLOGICAL INFORMATION**

CARCINOGENICITY OF MATERIAL..... NTP STUDY FOUND AN INCREASED INCIDENCE OF RENAL TUBULE NEOPLASMS IN MALE AND FEMALE RATS EXPOSED TO ETHYLBENZENE BY INHALATION FOR TWO YEARS. ETHYLBENZENE HAS BEEN CLASSIFIED BY IARC AS A POSSIBLE HUMAN CARCINOGEN (GROUP 2B) ON THE BASIS OF SUFFICIENT EVIDENCE OF CARCINOGENICITY IN EXPERIMENTAL ANIMALS BUT INADEQUATE EVIDENCE IN EXPOSED HUMANS.

TERATOGENICITY..... HIGH EXPOSURES TO XYLENE IN SOME ANIMALS STUDIES, OFTEN AT LEVELS TOXIC TO THE MOTHER, AFFECTED EMBRYO/FETAL DEVELOPMENT. PREGNANT FEMALE RODENTS EXPOSED BY INHALATION TO HIGH CONCENTRATIONS OF MEK HAVE PRODUCED OFFSPRING WITH MINOR DEVELOPMENTAL EFFECTS.

IRRITANCY OF MATERIAL..... SEE SECTION 03.

SENSITIZING CAPABILITY OF MATERIAL..... SEE SECTION 03.

SYNERGISTIC MATERIALS..... N.AV.

**Section 12: ECOLOGICAL CONSIDERATIONS**

ENVIRONMENTAL TOXICITY ..... DO NOT ALLOW PRODUCT OR RUNOFF FROM FIRE CONTROL TO ENTER STORM INFORMATION OR SANITARY SEWERS, LAKES, RIVERS, STREAMS, OR PUBLIC WATERWAYS.

**Section 13: DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL..... DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, PROVINCIAL, AND LOCAL ENVIRONMENTAL REGULATIONS.

**Section 14: TRANSPORT INFORMATION**

UN NUMBER..... 1993.

TDG CLASSIFICATION..... 3.

PACKING GROUP..... II.

SPECIAL SHIPPING INSTRUCTIONS..... N.AP.

**Section 15: REGULATORY INFORMATION**

WHMIS CLASSIFICATION..... B2, D2A, D2B.

CPR COMPLIANCE..... THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

**Section 16: OTHER INFORMATION**

N.AV.=NOT AVAILABLE  
N.AP.=NOT APPLICABLE