

MATERIAL SAFETY DATA SHEET**PRODUCT IDENTIFICATION**

PRODUCT: **QUICKSHOT** HMIS CODES: H F R
PRODUCT CODE: **NQT2500**
MANUFACTURER: MAINSTREAM ENGINEERING CORP.
ADDRESS: 200 YELLOW PLACE ROCKLEDGE, FLORIDA 32955
INFORMATION: 321-631-3550 EMERGENCY: CHEMTREC 800-424-9300
DATE: 5/2003 PREPARER: R. Madariaga
DISTRIBUTOR: **NATIONAL REFRIGERATION PRODUCTS**
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PRODUCT COMPOSITION INFORMATION

<u>COMPONENT</u>	<u>CHEMICAL NAME</u>	<u>% BY WEIGHT</u>
CARRIER FLUID	*	60-65
ADDITIVES	*	35-40

* TRADE SECRET – PROPRIETARY FORMULA. SPECIFIC CHEMICAL IDENTITIES ARE WITHHELD AS A TRADE SECRET UNDER THE PROVISIONS OF OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200

HAZARDS IDENTIFICATION

EXPOSURE LIMITS:	PEL 400 PPM	200 PPM (SKIN)
	TLV 400 PPM	200 PPM (SKIN)

POTENTIAL HEALTH EFFECTS:

PRIMARY ROUTES OF EXPOSURE: CONTACT WITH SKIN AND EYES . EXPOSURE MAY ALSO OCCUR VIA INHALATION OR INGESTION IF PRODUCT DUST IS GENERATED.

SKIN CONTACT: EXPOSURE MAY CAUSE MILD SKIN IRRITATION. PROLONGED OR REPEATED EXPOSURE MAY DRY THE SKIN. SYMPTOMS MAY INCLUDE REDNESS, BURNING, DRYING AND CRACKING, SKIN BURNS, AND DERMATITIS. SKIN ABSORPTION IS POSSIBLE, AND MAY CONTRIBUTE TO SYMPTOMS OF TOXICITY FROM OTHER ROUTES OF EXPOSURE.

EYE: EXPOSURE CAUSES EYE IRRITATION. SYMPTOMS MAY INCLUDE STINGING, TEARING, REDNESS, SWELLING, AND BLURRED VISION.

INHALATION: EXPOSURE TO DUST PARTICLES GENERATED FROM THIS MATERIAL MAY CAUSE IRRITATION OF THE RESPIRATORY TRACT. REPEATED AND PROLONGED INHALATION OR CRYSTALLINE SILICA IN THE FORM OF QUARTZ FROM OCCUPATIONAL SOURCES MAY CAUSE CANCER.

TARGET ORGAN: THIS PRODUCT CONTAINS ETHANOL. ALCOHOLIC BEVERAGE CONSUMPTION HAS BEEN ASSOCIATED WITH BRAIN DAMAGE, HEART DAMAGE, AND PANCREATITIS IN HUMANS. THE RELEVANCE OF THESE FINDINGS TO ETHANOL EXPOSURE IN INDUSTRIAL ENVIRONMENTS IS UNCERTAIN. EXPOSURE TO LETHAL CONCENTRATIONS OF ETHOL HAS BEEN SHOWN TO CAUSE DAMAGE TO ORGANS INCLUDING LIVER, KIDNEYS, PANCREAS, HEART, LUNGS AND BRAIN. ALTHOUGH THIS RARELY OCCURS, SURVIVORS OF SEVERE INTOXICATION MAY SUFFER FROM PERMANENT NEUROLOGICAL DAMAGE. OVEREXPOSURE TO THIS MATERIAL (OR ITS

COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN LABATORY ANIMALS, AND MAY AGGRAVATE PRE-EXISTING DISORDERS OF THESE ORGANS IN HUMANS: CENTRAL NERVOUS SYSTEM DAMAGE, BRAIN DAMAGE, TESTIS DAMAGE, LIVER DAMAGE, PANCREATIC DAMAGE, ANEMIA, KIDNEY DAMAGE, LUNG DAMAGE. OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS, AND MAY AGGRAVATE PRE-EXISTING DISORDERS OF THESE ORGANS: VISUAL IMPAIRMENT, LIVER DAMAGE.

DEVELOPMENTAL INFORMATION: WHILE THERE IS SUFFICIENT EVIDENCE THAT METHANOL CAUSES BIRTH DEFECTS IN EXPERIMENTAL ANIMALS, THE RELEVANCE OF THESE FINDINGS TO HUMANS IS UNCERTAIN BECAUSE OF DIFFERENCES IN METABOLISM AND TOXICITY OF METHANOL BETWEEN HUMANS AND NON-PRIMATES.

CANCER INFORMATION: IARC (INTERNATIONAL AGENCY FOR RESEARCH ON CANCER) HAS DETERMINED THAT EXPOSURE TO ETHANOL THROUGH CHRONIC HUMAN CONSUMPTION OF ALCOHOLIC BEVERAGES CAN CAUSE CANCER. ALCOHOLIC BEVERAGE CONSUMPTION HAS ALSO BEEN ASSOCIATED WITH BIRTH DEFECTS, BRAIN DAMAGE, HEART DAMAGE, PANCREATITIS IN HUMANS. THE RELEVANCE OF THESE FINDINGS TO ETHANOL EXPOSURE IN INDUSTRIAL ENVIRONMENTS IS UNCERTAIN.

OTHER HEALTH EFFECTS: NO DATA.

PRIMARY ROUTE(S) OF ENTRY: INHALATION, SKIN ABSORPTION, SKIN CONTACT, EYE CONTACT.

EFFECTS OF OVEREXPOSURE

GASTROINTESTINAL IRRITATION (NAUSEA, VOMITING, DIARRHEA), IRRITATION (NOSE, THROAT, DIZZINESS, DROWSINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, UNCONSCIOUSNESS), LEG CRAMPS, INVOLUNTARY EYE MOVEMENT, ABDOMINAL AND LOW BACK PAIN, RESPIRATORY DEPRESSION, BLURRED VISION, SHORTNESS OF BREATH, IMPAIRED COORDINATION, CONFUSION, IRREGULAR HEARTBEAT, CYANOSIS (CHARACTERIZED BY BLuish DISCOLORATION OF THE SKIN AND NAILS). ANESTHESIA, VISUAL IMPAIRMENT (INCLUDING BLINDNESS), RESPIRATORY FAILURE, COMA, AND DEATH.

FIRST AID MEASURES

INHALATION: IF SYMPTOMS DEVELOP, IMMEDIATELY MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. SEEK IMMEDIATE MEDICAL ATTENTION. KEEP PERSON WARM AND QUIET. IF PERSON IS NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN.

INGESTION: SEEK MEDICAL ATTENTION. IF INDIVIDUAL IS DROWSY OR UNCONSCIOUS, DO NOT GIVE ANYTHING BY MOUTH; PLACE INDIVIDUAL ON THE LEFT SIDE WITH THE HEAD DOWN. IF INDIVIDUAL IS CONSCIOUS AND ALERT, INDUCE VOMITING BY GIVING SYRUP OF IPECAC OR BY GENTLY PLACING TWO FINGERS AT THE BACK OF THE THROAT. IF POSSIBLE, DO NOT LEAVE INDIVIDUAL UNATTENDED.

SKIN: REMOVE CONTAMINATED CLOTHING. WASH EXPOSED AREA WITH SOAP AND WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION. LAUNDER CLOTHING BEFORE REUSE.

EYES: IF SYMPTOMS DEVELOP, IMMEDIATELY MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. FLUSH EYES GENTLY WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS APART; SEEK IMMEDIATE MEDICAL ATTENTION.

NOTICE TO PHYSICIANS: THIS PRODUCT CONTAINS METHANOL. METHANOL IS METABOLIZED TO FORMALDEHYDE AND FORMIC ACID. THESE METABOLITES MAY CAUSE METABOLIC ACIDOSIS, VISUAL DISTURBANCES, AND BLINDNESS. SINCE METABOLISM IS REQUIRED FOR THESE TOXIC SYMPTOMS, THEIR ONSET MAY BE DELAYED FROM 6 TO 30 HOURS FOLLOWING INGESTION. ETHANOL COMPETES FOR THE SAME METABOLIC PATHWAY AND HAS BEEN USED AS AN ANTIDOTE. METHANOL IS EFFECTIVELY REMOVED BY HEMODIALYSIS.

FIRE AND EXPLOSION INFORMATION

FLASH POINT: 54 DEG. F (SETAFLASH METHOD)

FLAMMABLE LIMITS: LOWER – 3%, UPPER – 26%

EXTINGUISHING MEDIA: DRY CHEMICAL, CARBON DIOXIDE, FOAM.

HAZARDOUS DECOMPOSITION PRODUCTS: TOXIC FUMES OF CARBON DIOXIDE AND CARBON MONOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS IN POSITIVE PRESSURE MODE WITH CONFINED FACEPIECE.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NEVER USE WELDING OR CUTTING TORCH ON OR NEAR CONTENTS BECAUSE PRODUCT CAN IGNITE EXPLOSIVELY.

HANDLING, STORAGE & DISPOSAL

HANDLING: AVOID PROLONGED OR REPEATED BREATHING OF VAPORS, MISTS, FUMES. WASH THOROUGHLY AFTER HANDLING. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID INGESTION AND INHALATION. USE IN A WELL VENTILATED AREA. IF MIST IS FORMED OR EXPOSURE LIMIT OF PRODUCT IS EXCEEDED, USE OF A NIOSH/MSHA APPROVED RESPIRATOR IS ADVISED. PROVIDE SUFFICIENT MECHANICAL, GENERAL, AND/OR LOCAL EXHAUST TO MAINTAIN EXPOSURE BELOW TLV. WEAR RESISTANT GLOVES; SAFETY GLASSES OR SPLASH GOGGLES ARE ADVISED. DO NOT TAKE ANY FOOD OR DRINK, OR HANDLE TOBACCO PRODUCTS WHILE IN CONTACT WITH THIS PRODUCT.

STORAGE: STORE IN A COOL, DRY LOCATION. KEEP CONTAINER TIGHTLY CLOSED. DO NOT STORE NEAR HEAT, FLAME, STRONG OXIDANTS. MAINTAIN ADEQUATE VENTILATION.

SPILL AND LEAK PROCEDURES: DO NOT PERMIT PRODUCT TO ENTER STREAMS, SEWERS, OR OTHER WATERWAYS. ELIMINATE ALL IGNITION SOURCES. DIKE SPILL AND ELIMINATE LEAK. ABSORB WITH VERMICULITE OR OTHER ABSORBENT. TRANSFER ABSORBENT TO CLOSED CONTAINERS FOR DISPOSAL.

DISPOSAL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

PHYSICAL AND CHEMICAL DATA

BOILING POINT/RANGE (760 mm Hg):	82-250 DEG. C
VAPOR PRESSURE:	16mm Hg (20 DEG. C)
SPECIFIC GRAVITY (WATER = 1):	0.91
VAPOR DENSITY (AIR = 1):	ND
PERCENT VOLATILES:	<40%
EVAPORATION RATE:	ND
APPEARANCE:	SLIGHT AMBER COLOR
ODOR:	CHARACTERISTIC ODOR

REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: HAS NOT BEEN REPORTED.

INCOMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS, HEAT, FLAME.

ADDITIONAL INFORMATION

DOT SHIPPING CLASS: 49 CFR 173.4 (EXEMPTIONS FOR SMALL QUANTITIES)
EPA TSCA: ALL INGREDIENTS LISTED ON THE TSCA INVENTORY.

DISCLAIMER

INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BELIEVED TO BE ACCURATE AT THE TIME OF PREPARATION. NO WARRANTY IS MADE CONCERNING THE ACCURACY AND NO LIABILITY SHALL BE MADE FOR CLAIMS FOR USE OR RELIANCE OF THE RECOMMENDATIONS CONTAINED HEREIN.