

KUUS INC.
450 TAPSCOTT ROAD, UNIT 5 & 6
TORONTO, ON M1B 1Y4
CANADA

PRODUCT: MS0005 MOSQUITO SHIELD NORTHERN FORMULA (25% DEET)

Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER..... KUUS INC.
450 TAPSCOTT ROAD, UNIT 5 & 6
TORONTO, ON M1B 1Y4
(800) 267-0455

PRODUCT NAME MOSQUITO SHIELD NORTHERN FORMULA (25% DEET)

CHEMICAL FAMILY..... DEET

MOLECULAR WEIGHT..... NOT APPLICABLE

CHEMICAL FORMULA..... MIXTURE

TRADE NAMES & SYNONYMS..... MOSQUITO SHIELD NORTHERN FORMULA (25% DEET)

PRODUCT USES..... REPELLENT

FORMULA # 012-5-45/012-6-251

Section 02: COMPOSITION/INFORMATION INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S. #	LD/50, Route, Species	LC/50 Route, Species
N, N-DIETHYL m-TOLUAMIDE	25	N/A	134-62-3	2000 mg/kg ORAL-RAT	5950mg/kg INHAL-RAT
ETHANOL	30-60	400ppm	67-63-0	>4720 mg/kg ORAL-RAT	12000 ppm (8hr) INHAL-RAT
ISOBUTANE	10-30	1000ppm	75-28-5	N/A	142,500ppm (4h) INHAL-RAT
PROPANE	1-5	1000ppm	74-98-6	N/A	NOTAVAILABLE

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:

INGESTION..... MAY CAUSE HEADACHE, NAUSEA, VOMITING AND WEAKNESS.

INHALATION..... INHALATION OF SOLVENTS MAY CAUSE IRRITATION.

EYE CONTACT..... MAY CAUSE IRRITATION.

SKIN ABSORPTION..... NO DATA AVAILABLE FOR THIS PRODUCT MIXTURE.

SKIN CONTACT..... MAY CAUSE IRRITATION.

EFFECTS OF ACUTE EXPOSURE..... DIZZINESS, NAUSEA, IRRITATION TO SKIN & EYES.

EFFECTS OF CHRONIC EXPOSURE..... MAY CAUSE DEFATTING DERMATITIS.

EXPOSURE LIMIT OF MATERIAL..... SEE SECTION 2.

Section 04: FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURE IN CASE OF EYE CONTACT, FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION. FOR SKIN, WASH THOROUGHLY WITH SOAP AND WATER. IF AFFECTED BY INHALATION OF VAPOUR OR SPRAY MIST, REMOVE TO FRESH AIR. IF SWALLOWED, DO NOT INDUCE VOMITING, GET MEDICAL ATTENTION.

Section 05: FIRE FIGHTING MEASURES	
AUTO IGNITION TEMPERATURE (°C)	399
SPECIAL PROCEDURES.....	WATER FROM FOGGING NOZZLES MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT BUILD-UP IF EXPOSED TO EXTREME TEMPERATURES. FULL PROTECTIVE EQUIPMENT INCLUDING SELF CONTAINED BREATHING APPLIANCES SHOULD BE WORN IN A FIRE INVOLVING THIS MATERIAL.
FLAMMABILITY.....	CAUTION – FLAMMABLE
IF YES, UNDER WHICH CONDITIONS?	EXCESSIVE HEAT, SPARKS AND OPEN FLAME.
EXTINGUISHING MEDIA.....	WATER, CARBON DIOXIDE, DRY CHEMICAL, FOAM.
UPPER FLAMMABLE LIMIT.....	12.
(% BY VOLUME)	
LOWER FLAMMABLE LIMIT.....	1.9.
(% BY VOLUME)	
EXPLOSION DATA	
SENSITIVITY TO STATIC DISCHARGE	NOT APPLICABLE
SENSITIVITY TO IMPACT	NOT APPLICABLE
HAZARDOUS COMBUSTION PRODUCTS	HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.
AEROSOL FLAME PROJECTION	
CLASSIFIED AS:.....	>15cm BUT <100cm.
FLASHBACK.....	YES
Section 06: ACCIDENTAL RELEASE MEASURES	
LEAK/SPILL.....	REMOVE ALL SOURCES OF IGNITION. USE AN INERT ABSORBENT MATERIAL, AND NON-SPARKING TOOLS. VENTILATE AREA. PREVENT FROM ENTERING A WATERCOURSE
Section 07: HANDLING AND STORAGE	
STORAGE NEEDS.....	KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES.
ENGINEERING CONTROLS.....	VENTILATION – LOCAL (MECHANICAL IF USED INDOORS ON A CONTINUOUS BASIS).
HANDLING PROCEDURES AND EQUIPMENT.....	STORE IN A COOL, WELL VENTILATED AREA NOT TO EXCEED 50°C.
SYNERGISTIC MATERIALS.....	NONE KNOWN.
Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION	
GLOVES / TYPE.....	NOT NORMALLY REQUIRED
RESPIRATORY / TYPE.....	NOT NORMALLY REQUIRED
EYE / TYPE.....	WHERE THERE IS POTENTIAL FOR EYE CONTACT, WEAR SAFETY GLASSES.
FOOTWEAR / TYPE.....	NOT NORMALLY REQUIRED
OTHER / TYPE.....	NOT REQUIRED
Section 09: PHYSICAL AND CHEMICAL PROPERTIES	
PHYSICAL STATE.....	AEROSOL
APPEARANCE.....	CLEAR, AMBER LIQUID
ODOR.....	ALCOHOL
ODOR THRESHOLD.....	NOT AVAILABLE
VAPOUR PRESSURE (PSIG)-AEROSOL @20 C	40-50.
BOILING POINT (°C) (CONC).....	83
EVAPORATION RATE.....	GREATER THAN 1
n-BUTYL ACETATE = 1	
VAPOUR DENSITY (AIR=1).....	GREATER THAN 1
(BY WEIGHT)	
SOLUBILITY IN WATER g/L (20°C)....	NOT AVAILABLE
pH.....	NOT APPLICABLE
SPECIFIC GRAVITY (LIQUID).....	0.85-0.89
COEFFICIENT OF WATER/OIL DIST	NOT AVAILABLE

Section 09: PHYSICAL AND CHEMICAL PROPERTIES CONT'D	
FREEZING POINT: (°C).....	NOT AVAILABLE
AEROSOL PERCENT VOLATILE..... (BY WEIGHT)	64-65
PERCENT VOC (w/w).....	0.75-0.79
Section 10: STABILITY AND REACTIVITY	
HAZARDOUS PRODUCTS OF DECOMPOSITION.....	HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.
CHEMICAL STABILITY:	
YES.....	UNDER NORMAL CONDITIONS
NO, WHICH CONDITIONS?.....	NOT APPLICABLE
COMPATIBILITY WITH OTHER SUBSTANCES:.....	
NO, WHICH ONES?.....	STRONG OXIDIZING AGENTS
REACTIVITY CONDITIONS?.....	NOT APPLICABLE.
Section 11: TOXICOLOGICAL INFORMATION	
REPRODUCTIVE EFFECTS.....	NO INFORMATION IS AVAILABLE AND NO ADVERSE REPRODUCTIVE EFFECTS ARE ANTICIPATED.
IRRITANCY OF MATERIAL.....	SKIN/EYE IRRITANT
SENSITIZING CAPABILITY OF MATERIAL.....	UNKNOWN
CARCINOGENICITY OF MATERIAL	THE INGREDIENTS OF THIS PRODUCT ARE NOT LISTED AS CARCINOGENS BY NTP (NATIONAL TOXICITY PROGRAM), NOT REGULATED AS CARCINOGENS BY OSHA, (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), AND HAVE NOT BEEN EVALUATED BY IARC (INTERNATIONAL AGENCY FOR RESEARCH ON CANCER), NOR BY ACGIH (AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS).
TERATOGENICITY.....	NO INFORMATION IS AVAILABLE AND NO ADVERSE TERATOGENIC EFFECTS ARE ANTICIPATED.
MUTAGENICITY.....	NO INFORMATION IS AVAILABLE AND NO ADVERSE MUTAGENIC EFFECTS ARE ANTICIPATED.
Section 12: ECOLOGICAL CONSIDERATIONS	
ENVIRONMENTAL.....	NOT AVAILABLE
Section 13: DISPOSAL CONSIDERATIONS	
WASTE DISPOSAL.....	DISPOSE OF IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.
Section 14: TRANSPORTATION INFORMATION	
T.D.G. CLASSIFICATION.....	CONSUMER COMMODITY (AEROSOLS, UN1950, CLASS 2.1)
DOT CLASSIFICATION.....	CONSUMER COMMODITY, ORM-D.
Section 15: REGULATORY INFORMATION	
<u>CANADIAN REGULATIONS:</u>	
WHMIS CLASSIFICATION.....	A,B5,D2B
CEPA (Canadian Environmental Protection Act)	ALL SUBSTANCES IN THIS PRODUCT ARE LISTED ON THE CANADIAN DOMESTIC SUBSTANCES LIST (DSL) OR ARE NOT REQUIRED TO BE LISTED.
<u>U.S. REGULATIONS:</u>	
HMIS RATING HEALTH.....	2 MODERATE HAZARD
HMIS RATING FLAMMABILITY	4 SEVERE HAZARD
HMIS RATING REACTIVITY	0 MINIMAL HAZARD
NFPA CODE 30B	LEVEL 3

Section 15: REGULATORY INFORMATION CONT'D

SARA 313 INFORMATION.....	THIS PRODUCT CONTAINS NO INGREDIENTS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.
CALIFORNIA PROPOSITION 65	WARNING: THIS PRODUCT DOES NOT INTENTIONALLY CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR OTHER REPRODUCTIVE HARM.
TSCA (Toxic Substances Control Act)	ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. ANY IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING.

Section 16: OTHER INFORMATION

NOTICE FROM KUUS INC.	THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET IS PROVIDED BY MOSQUITO SHIELD INC. FREE OF CHARGE. WHILE BELIEVED TO BE RELIABLE, IT IS INTENDED FOR USE BY SKILLED PERSONS AT THEIR OWN RISK. MOSQUITO SHIELD INC. ASSUMES NO RESPONSIBILITY FOR EVENTS RESULTING OR DAMAGES INCURRED FROM ITS USE. THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PROCESS.
PREPARATION DATE.....	<u>June 1, 2015</u>