

MATERIAL SAFETY DATA SHEET

KUUS INC.

KNOCK DOWN FARM, LIVESTOCK, FOOD PROCESSING PLANTS & INSTITUTIONAL INSECT KILLER

Effective Date: April 1, 2015

1. MATERIAL IDENTIFICATION AND USE

MANUFACTURER'S NAME	KUUS INC.
MANUFACTURER'S ADDRESS	450 TAPSCOTT ROAD, UNIT 5 & 6 SCARBOROUGH, ONTARIO M1B 1Y4
MANUFACTURER'S TELEPHONE NO.	1-800-267-0455
SUPPLIER IDENTIFIER	AS MANUFACTURER
SUPPLIER'S ADDRESS	AS MANUFACTURER
SUPPLIER'S TELEPHONE NO.	AS MANUFACTURER
PRODUCT IDENTIFIER	KNOCK DOWN FARM, LIVESTOCK, FOOD PROCESSING PLANTS & INSTITUTIONAL INSECT KILLER FORMULA: COMMERCIAL
PRODUCT CODE	KD243C
PRODUCT USE	INSECTICIDE

2. HAZARDOUS INGREDIENTS OF MATERIALS

INGREDIENTS	PERCENTAGE (%)	CAS NUMBER:	LD50(species/route)	LD50(species/route)
Permethrin	0.5	52645-53-1	>2500mg/kg (oral-rat)	Not Available
Odourless Mineral Spirits	5-10	64742-48-9	5000 mg/kg (oral-rat)	5500mg/m3(4h)(inhal-rat)
Isobutane	10-30	75-28-5	Not Applicable	142500ppm/4h (inhal-rat)
Propane	3-7	74-98-6	>5000mg/kg (dermal-rabbits)	Not Available

3. HAZARDS IDENTIFICATION

ROUTE OF ENTRY:

SKIN CONTACT	MAY CAUSE IRRITATION
EYE CONTACT	MAY CAUSE IRRITATION
ACUTE EFFECTS – INGESTION	HEADACHE, NAUSEA, VOMITING AND WEAKNESS
ACUTE EFFECTS – INHALATION	INHALATION OF SOLVENTS MAY CAUSE IRRITATION. PROPELLANT IS A SIMPLE ASPHYXIANT.

3. HAZARDS IDENTIFICATION Cont'd

EFFECTS OF ACUTE EXPOSURE	DIZZINESS, NAUSEA, IRRITATION TO SKIN & EYES
EFFECTS OF CHRONIC EXPOSURE	SOLVENTS MAY CAUSE DEFATTING DERMATITIS
EXPOSURE LIMIT OF MATERIAL:	
PERMETHRIN	NOT AVAILABLE
ODOURLESS MINERAL SPIRITS	100 ppm
ISOBUTANE	1000 ppm
PROPANE	1000 ppm

4. PHYSICAL DATA FOR PRODUCT

PHYSICAL STATE	AEROSOL
ODOUR AND APPEARANCE	HYDROCARBON AND WHITE EMULSION
VAPOUR PRESSURE (mm Hg)	50-60 at 20°C
SPECIFIC GRAVITY	0.94-0.9
EVAPORATION RATE	(N-BUTYL ACETATE=1): LESS THAN 1
VAPOUR DENSITY	(AIR=1): GREATER THAN 1
% VOLATILE	(BY WEIGHT): 97-99
BOILING POINT	171-205°C (CONC)
SOLUBILITY IN WATER (20°C)	SOLUBLE
pH	6-7
SPECIFIC GRAVITY (AEROSOL)	0.76-0.80

5. 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.
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6. FIRE AND EXPLOSION HAZARD OF PRODUCT

FLAMMABILITY	NOT A FLAMMABLE PRODUCT (AS PER CANADIAN AEROSOL REGULATIONS) EXCEPT WHEN EXPOSED TO EXCESSIVE HEAT, SPARKS AND OPEN FLAME
HAZARDOUS COMBUSTION PRODUCTS	HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE
EXTINGUISHING MEDIA	WATER, CARBON DIOXIDE, DRY CHEMICAL, FOAM.
FLASHPOINT	LOWEST KNOWN VALUE IS ODOURLESS MINERAL SPIRIT @51C
UPPER EXPLOSION LIMIT (% BY VOL)	9.5
LOWER EXPLOSION LIMIT (% BY VOL)	0.8
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 APPARATUS SHOULD BE WORN IN A FIRE INVOLVING THIS MATERIAL.
AUTO IGNITION TEMPERATURE (°C)	NOT AVAILABLE
FLASHBACK	NONE
EXPLOSION DATA	
SENSITIVITY TO STATIC DISCHARGE	NOT APPLICABLE
SENSITIVITY TO IMPACT	NOT APPLICABLE
AEROSOL FLAME PROJECTION CLASSIFIED AS	0cm

7. REACTIVITY DATA

CHEMICAL STABILITY	YES...UNDER NORMAL CONDITIONS
INCOMPATIBLE MATERIALS	STRONG OXIDIZING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS	HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.

8. TOXICOLOGICAL PROPERTIES OF PRODUCT

REPRODUCTIVE EFFECTS	NO INFORMATION IS AVAILABLE AND NO ADVERSE REPRODUCTIVE EFFECTS ARE ANTICIPATED
IRRITANCY OF MATERIAL	SLIGHT
SENSITIZING CAPABILITY OF MATERIAL	UNKNOWN
CARCINOGENICITY OF MATERIAL	THE INGREDIENTS OF THIS PRODUCT ARE NOT LISTED AS CARCINOGENS BY NTP, (NATIONAL TOXICOLOGY PROGRAM) , NOT REGULATED AS CARCINOGENS BY OSHA, (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), AND HAVE NOT BEEN EVALUATION 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 ANTICIPATE

9. PREVENTIVE MEASURES

EYE PROTECTION REQUIREMENTS	NONE REQUIRED FOR NORMAL USAGE. WEAR SAFETY GLASSES
GLOVE REQUIREMENTS	NOT NORMALLY REQUIRED
CLOTHING REQUIREMENTS	NOT NORMALLY REQUIRED
RESPIRATOR REQUIREMENTS	NOT NORMALLY REQUIRED
SPILL AND LEAK PROCEDURES	REMOVE ALL SOURCES OF IGNITION. USE AN INERT ABSORBENT MATERIAL, AND NON-SPARKING TOOLS. VENTILATE AREA. PREVENT FROM ENTERING A WATERCOURSE.
WASTE DISPOSAL METHODS	DO NOT PUNCTURE OR INCINERATE CONTAINERS, EVEN WHEN EMPTY. DISPOSE OF IN ACCORDANCE WITH LOCAL, PROVINCIAL, AND FEDERAL REGULATIONS.
HANDLING/STORAGE	KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES. STORE IN COOL, WELL VENTILATED AREA NOT TO EXCEED 50°C.

10. REGULATORY INFORMATION

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION
CNFC SECTION 3.3.5
CEPA (Canadian Environmental Protection Act)

NOT REGULATED BY WHMIS.
LEVEL 1.
ALL SUBSTANCES IN THIS PRODUCT ARE LISTED ON THE CANADIAN DOMESTIC SUBSTANCES LIST (DSL) OR ARE NOT REQUIRED TO BE LISTED.

U.S. REGULATIONS:

HMIS RATING HEALTH
HMIS RATING FLAMMABILITY
HMIS RATING REACTIVITY
HMIS RATING PERSONAL PROTECTION
NFPA CODE 30B
SARA 313 INFORMATION

2 MODERATE HAZARD.
1 SLIGHT HAZARD.
0 MINIMAL HAZARD.
B.
LEVEL 1.
THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES 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: .

CALIFORNIA PROPOSITION 65

CAS #: CHEMICAL NAME: .
*52645-53-1 PERMETHRIN .
THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY WITH THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986: .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)

CAS #: CHEMICAL NAME:
N/A.
ALL COMPONENT OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. ANY IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING.

VOC (w/w%)

<40.
WARNING: THIS PRODUCT DOES NOT INTENTIONALLY CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.
CAS #: CHEMICAL NAME:

TSCA (Toxic Substances Control Act)

N/A.
ALL COMPONENT OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. ANY IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING.

VOC (w/w%)

<40.

11. ECOLOGICAL CONSIDERATION

ENVIRONMENTAL

THIS PRODUCT IS POTENTIALLY TOXIC TO FISH, BIRDS AND OTHER WILDLIFE.

12. TRANSPORTATION INFORMATION

T.D.G. CLASSIFICATION	CONSUMER COMMODITY (AEROSOLS, UN1950, CLASS 2.1).
D.O.T. CLASSIFICATION	CONSUMER COMMODITY, ORM-D.

13. PREPARATION DATE OF MATERIAL SAFETY DATA SHEET

PREPARED BY	KUUS INC.
TELEPHONE NUMBER OF PREPARER	1-800-267-0455
DATE PREPARED	April 1, 2015

THE INFORMATION CONTAINED HEREIN IS OFFERED ONLY AS A GUIDE TO THE HANDLING OF THIS SPECIFIC MATERIAL AND HAS BEEN PREPARED IN GOOD FAITH BY TECHNICALLY KNOWLEDGEABLE PERSONNEL. IT IS NOT INTENDED TO BE ALL-INCLUSIVE AND THE MANNER AND CONDITIONS OF USE AND HANDLING MAY INVOLVE OTHER ADDITIONAL CONSIDERATIONS. NO WARRANTY OF ANY KIND IS GIVEN OR IMPLIED AND KUUSPORT MANUFACTURING LIMITED WILL NOT BE LIABLE FOR ANY DAMAGES, LOSSES, INJURIES OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM THE USE OR RELIANCE ON ANY INFORMATION CONTAINED HEREIN.