

## MATERIAL SAFETY DATA SHEET

KNOCKDOWN (Division of KUUS INC.)

### KNOCKDOWN TOTAL RELEASE FUMIGATOR 150G /340G

Effective Date: June 1, 2012

#### 1. MATERIAL IDENTIFICATION AND USE

MANUFACTURER'S NAME	KNOCKDOWN (Division of KUUS INC.)
MANUFACTURER'S ADDRESS	450 TAPSCOTT ROAD, UNIT 5 & 6A SCARBOROUGH, ONTARIO M1B 1Y4
MANUFACTURER'S TELEPHONE NO.	(416) 298-7724
SUPPLIER IDENTIFIER	AS MANUFACTURER
SUPPLIER'S ADDRESS	AS MANUFACTURER
SUPPLIER'S TELEPHONE NO.	AS MANUFACTURER
PRODUCT IDENTIFIER	<b>KNOCKDOWN TOTAL RELEASE FUMIGATOR 150G</b> FORMULA: DOMESTIC/COMMERCIAL
PRODUCT CODE	<b>KD400D/C and KD401D</b>
PRODUCT USE	INSECTICIDE

#### 2. HAZARDOUS INGREDIENTS OF MATERIALS

INGREDIENTS	PERCENTAGE (%)	CAS NUMBER:	LD50(species/route)	LD50(species/route)
Pyrethrins	0.4	8003-34-7	1680mg/kg (oral-rat)	Not Available
Piperonyl Butoxide	2.0	51-03-6	4.6g/kg (oral-rat)	>5.9mg/l
Isopropanol	5-10	67-63-0	>4720 mg/kg (oral-rat)	12000 ppm/8h (inhal-rat)
Heptane	30-60	142-82-5	>15000 mg/kg (oral-rat)	Not Available
Isobutane	10-30	75-28-5	Not Applicable	142500ppm/4h (inhal-rat)
Propane	10-30	74-98-6	Not Applicable	Not Available

#### Section 03: HAZARDS IDENTIFICATION

##### ROUTE OF ENTRY:

INGESTION	MAY CAUSE HEADACHE, NAUSEA, VOMITING AND WEAKNESS
INHALATION	INHALATION OF SOLVENTS MAY CAUSE IRRITATION. PROPELLANT IS A SIMPLE ASPHYXIAN
EYE CONTACT	MAY CAUSE IRRITATION
SKIN ABSORPTION	NO DATA AVAILABLE FOR THIS PRODUCT MIXTURE

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### Section 03: HAZARDS IDENTIFICATION Cont'd

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SKIN CONTACT	MAY CAUSE IRRITATION
EFFECTS OF ACUTE EXPOSURE	DIZZINESS, NAUSEA. IRRITATION TO SKIN & EYES
EFFECTS OF CHRONIC EXPOSURE	SOLVENTS MAY CAUSE DEFATTING DERMATITIS
EXPOSURE LIMIT OF MATERIAL	SEE SECTION 2

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#### 4. FIRST AID MEASURES

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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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#### 5. FIRE AND EXPLOSION HAZARD OF PRODUCT

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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 APPARATUS SHOULD BE WORN IN A FIRE INVOLVING THIS MATERIAL.
FLAMMABILITY	EXTREMELY FLAMMABLE.
IF YES, UNDER WHICH CONDITIONS?	EXCESSIVE HEAT, SPARKS AND OPEN FLAME.
EXTINGUISHING MEDIA	WATER, CARBON DIOXIDE, DRY CHEMICAL, FOAM.
UPPER FLAMMABLE LIMIT (% BY VOL)	12
LOWER FLAMMABLE LIMIT (% BY VOL)	1.2
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	NONE
FLASH POINT(°C),TAG CLOSED-CUP (CONCENTRATE)	LOWEST KNOWN VALUE IS HEPTANE @ -7 °C.

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## 6. ACCIDENTAL RELEASE MEASURES

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LEAK/SPILL	REMOVE ALL SOURCES OF IGNITION. USE AN INERT ABSORBENT MATERIAL, AND NON-SPARKING TOOLS. VENTILATE AREA. PREVENT FROM ENTERING A WATERCOURSE.
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## 7. HANDLING AND STORAGE

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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 DEG C.
SYNERGISTIC MATERIALS	NONE KNOWN

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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GLOVES/ TYPE	NOT NORMALLY REQUIRED
RESPIRATORY/TYPE	IF USED INDOORS ON A CONTINUOUS BASIS, USE OF A CARTRIDGE TYPE RESPIRATOR (NIOSH/MSHATC 23C OR EQUIVALENT) IS RECOMMENDED.
EYE/TYPE	SAFETY GLASSES
FOOTWEAR/TYPE	NOT NORMALLY REQUIRED
OTHER/TYPE	NOT REQUIRED

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## 9. PHYSICAL DATA FOR PRODUCT

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PHYSICAL STATE	AEROSOL
ODOUR AND APPEARANCE	CLEAR YELLOW LIQUID. PYRETHRIN.
ODOUR THRESHOLD	NOT AVAILABLE
VAPOUR PRESSURE (mm Hg)	35-45 at 20°C
SPECIFIC GRAVITY	0.69-0.73
EVAPORATION RATE	(N-BUTYL ACETATE=1): GREATER THAN 1
VAPOUR DENSITY	(AIR=1): GREATER THAN 1
% VOLATILE	(BY WEIGHT): 97-98
BOILING POINT	83-92 °C

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**9. PHYSICAL DATA FOR PRODUCT Cont'd**

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SOLUBILITY IN WATER (20°C)	NEGLIGIBLE
pH	NOT APPLICABLE
COEFFICIENT OF WATER\OIL DIST	NOT AVAILABLE
FREEZING POINT: (°C)	NOT AVAILABLE
SPECIFIC GRAVITY (AEROSOL)	0.61-0.65
AEROSOL PERCENT VOC (w/w)	97-98

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**10. STABILITY AND REACTIVITY**

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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
HAZARDOUS POLYMERIZATION	WILL NOT OCCUR

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**11. TOXICOLOGICAL INFORMATION**

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REPRODUCTIVE EFFECTS	BENZENE - CAUSES FOETOTOXICITY IN ANIMALS AT DOSES WHICH ARE MATERNALLY TOXIC. DOES NOT IMPAIR FERTILITY.
IRRITANCY OF MATERIAL	SKIN/EYE IRRITANT
SENSITIZING CAPABILITY OF MATERIAL	UNKNOWN
CARCINOGENICITY OF MATERIAL	HEPTANE CONTAINS TRACE AMOUNT OF BENZENE - CARCINOGENIC RISKS TO HUMANS BASED ON THE EVALUATION OF IARC WORKING GROUP.
TERATOGENICITY	NO INFORMATION IS AVAILABLE AND NO ADVERSE TERATOGENIC EFFECTS ARE ANTICIPATED.
MUTAGENICITY	BENZENE - MAY CAUSE HERITABLE GENETIC DAMAGE

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## 12. ECOLOGICAL CONSIDERATIONS

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ENVIRONMENTAL

NOT AVAILABLE

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## 13. DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL

DO NOT PUNCTURE OR INCINERATE CONTAINERS, EVEN WHEN EMPTY. DISPOSE OF IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

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## 14. TRANSPORTATION INFORMATION

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T.D.G. CLASSIFICATION

CONSUMER COMMODITY (AEROSOLS, UN1950, CLASS 2.1).

D.O.T. CLASSIFICATION

CONSUMER COMMODITY, ORM-D.

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## 15. REGULATORY INFORMATION

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### CANADIAN REGULATIONS:

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WHMIS CLASSIFICATION

NOT REGULATED BY WHMIS.

CNFC SECTION 3.3.5

LEVEL 3

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.S. REGULATIONS:

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HMIS RATING HEALTH

2 MODERATE HAZARD.

HMIS RATING FLAMMABILITY

4 SEVERE HAZARD.

HMIS RATING REACTIVITY

0 MINIMAL HAZARD.

HMIS RATING PERSONAL PROTECTION

B.

NFPA CODE 30B

LEVEL 3.

SARA 313 INFORMATION:

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: .

CAS #:  
\*51-03-6

CHEMICAL NAME:  
PIPERONYL BUTOXIDE.

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#### 15. REGULATORY INFORMATION Cont'd

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CALIFORNIA PROPOSITION 65:	THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY WITH THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986: . WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. . CAS #: CHEMICAL NAME: . *71-43-2 BENZENE ( TRACE AMOUNT IN HEPTANE ) .
TSCA (Toxic Substances Control Act)	ALL COMPONENT OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. ANY IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING.
VOC (w/w%)	97-98.

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#### 16. PREPARATION DATE OF MATERIAL SAFETY DATA SHEET

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PREPARED BY	KUUS INC. (Division of KNOCKDOWN)
TELEPHONE NUMBER OF PREPARER	(416) 298-7724
DATE PREPARED	<b>June 1, 2012</b>

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 KUUS INC. 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.