

Safety Data Sheet

KNOCK DOWN BED BUG & FLEA KILLER

1. Identification

Product identifier	KNOCK DOWN BED BUG & FLEA KILLER
Product code	KD111SP
Registration number	30034
Other means of identification	N/A
Recommended use of the chemical and restrictions on use	Pesticide, insecticide, acaricide
Manufacturer	KUUS INC. 450 TAPSCOTT RD. UNIT 5 & 6 SCARBOROUGH, ON M1B 1Y4 Tel. (416)298-7724 www.kuusinc.com
Emergency phone number	CANUTEC 1-888- 226-8832 1-613-996-6666

2. Hazard identification

WHMIS 2015/GHS/OSHA HCS 2012

Physical Hazards Flammable aerosols, Category 1

Health Hazards Not classified.

Label elements

Hazard symbol



Signal Word

WARNING

H222: Extremely flammable aerosol

H229: Pressurized container: may burst if heated

P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking. P211: Do not spray on an open flame or other ignition source.

P251: Do not pierce or burn, even after use.

P410+412: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

3. Composition/information on ingredients

Common name	CAS	Weight % content
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Isobutane	75-28-5	15 - 40 %
Distillates (Petroleum), hydrotreated light	64742-47-8	3-7 %
Propane	74-98-6	3 - 7 %
D-Phenothrin	26002-80-2	0.1 - 1 %
Tetramethrin	7696-12-0	0.1 - 1 %

Note: The manufacturer withholds the actual concentration range of the ingredients as a trade secret.

4. First-aid measures

Inhalation	Move person to fresh air. If breathing is difficult, give oxygen by trained personnel. If not breathing, give artificial respiration. If a problem develops or persists, seek medical attention.
Skin contact	Wash skin with warm water and mild soap. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
Eye contact	Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with plenty of water. Never give anything by mouth if victim is unconscious or convulsing. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. If ingestion of a large amount does occur, seek medical attention or contact a Poison Centre immediately.
Other	No additional information.
Symptoms	Direct contact with eyes may cause temporary irritation.
Notes to the physician	If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	Dried powder, water fog, water spray, chemical foam, carbon dioxide (CO ₂), ABC fire extinguishing. Do not use a heavy water jet.
Specific hazards arising from the chemical	Flammable aerosol. May ignite on contact with an ignition source. Content under pressure, containers may explode if heated.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities.

Methods and materials for containment and cleaning up	Ventilate the area well. Eliminate all ignition sources. Absorb with inert material (soil, sand, vermiculite) or wipe with a cloth and place in an appropriate waste disposal container clearly identified. Finish cleaning the contaminated surface by rinsing with soapy water. Dispose via a licensed waste disposal contractor.
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7. Handling and storage

Precautions for safe handling	KEEP OUT OF REACH OF CHILDREN. DO NOT SPRAY ANIMALS WITH THIS PRODUCT. Content under pressure, do not puncture, cut, heat or throw container into the flames. Keep away from heat, sparks and open flame. Do not spray into open flame or hot surface. Avoid temperatures over 50 °C. Use in well ventilated area. Do not breathe vapours, mists or aerosols.
	Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Store away from oxidizing materials and incompatible materials (see section 10). Keep away from food and drink. Keep away from direct sunlight and heat. Keep away from freezing.
Storage temperature	5 to 35°C (41 to 95°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Propane: 2100 ppm. Isobutane: 1800 ppm.		
Isobutane	Ceiling	1000 ppm	ACGIH
	TWA (8h)	800 ppm	ON
Propane	Simple asphyxiant		ACGIH , BC, ON
		1000 ppm	1800 mg/m ³ RSST
Distillates (petroleum), Hydrotreated light	TWA (8h)		200 mg/m ³ ACGIH, BC, ON
Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.		
Individual protection measures			
Eye	In the workplace, wear safety glasses with side shields. If risk of contact with eyes, wear onepiece protective eyewear.		
Hands	Wear Nitrile gloves. Disposable nitrile gloves can also be used, but discard after single use.		
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear work clothing as required by employer code.		
Respiratory	Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA.		

Feet	No personal protection measure required.
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9. Physical and chemical properties

Physical state	Aerosol (liquid)	Flammability	Flammable.
Colour	Colourless	Flammability limits	N/Av.
Odour	N/Av.	Flash point	-73°C (-99.4°F)
Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	6.5-7.5	Sensibility to electrostatic charges	N/Av.
Melting point	N/Av.	Sensibility to sparks and/or friction	No
Freezing point	N/Av.	Vapour density	N/Av. (Air = 1)
Boiling point	100-263 °C	Relative density (Specific gravity)	0.98-1.02 (Water = 1)
Solubility	N/Av.	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	N/Av.	Decomposition temperature	N/Av.
Vapour pressure	275.7 to 344.7 kPa (2067.8 to 2585.3 mm Hg) @ 20°C (68°F)	Viscosity	N/Av.
Percent Wt. Volatile	N/Av.	Molecular mass	N/Av.
VOC (g/L)	N/Av.	% Volume Volatile (VOC)	N/Av.
VOC (lb/gal)	N/Av.	% Wt. Volatile (VOC)	N/Av.
N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	No reactivity expected.
Chemical stability	Stable under recommended storage conditions. Aerosol containers are unstable at temperatures above 49 °C.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid heat, flame and sparks. Avoid temperatures over 49 °C. Avoid contact with incompatible materials.
Incompatible materials	Strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and perchlorates).
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	Isobutane	Inhalation	276000 ppm/4h	Rat	LC50
			658 mg/l/4h	Rat	LC50
	Propane	Inhalation	240000 ppm/4h	Rat	LC50


	D-Phenothrin Ingestion >5000 mg/kg	Rat	LD50
	Inhalation >2.1 mg/l/4h	Rat	LC50
	Skin >2000 mg/kg	Rat	LD50
	Tetramethrin Ingestion >4640 mg/kg	Rat	LD50
	Inhalation >2.5 mg/l/4h	Rat	LC50
	Skin >2000 mg/kg	Rabbit	LD50
	Distillates (petroleum) Ingestion >5000mg/kg	Rat	LD50
	Inhalation >10.2mg/l/4h	Rat	LC50
	Hydrotreated light Skin 3160mg/kg	Rabbit	LD50
Likely routes of exposure	Skin, eyes, inhalation.		
Delayed, immediate and chronic effects	Eye contact	Direct contact with eyes may cause temporary irritation.	
	Skin contact	Prolonged skin contact may cause temporary irritation.	
	Inhalation	No negative effects expected.	
	Ingestion	Low hazard suspected if swallowed.	
	Respiratory or skin Ingredients present at levels greater than or equal to 0.1% of this product are not sensitization skin or respiratory sensitizers.		
	IARC/NTP Classification	No ingredients listed.	
	Carcinogenicity	Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.	
	Mutagenicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.	
	Reproductive toxicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.	
	Specific target organ toxicity - single exposure	No target organ is listed.	
	Specific target organ toxicity - repeated exposure	No target organ is listed.	
Interactive effects	No information available.		
Other information	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimates (ATE) by inhalation of the mixture were calculated to be greater than 20 mg/L/4h for vapours and to be greater than 5 mg/L/4h for the aerosols and mists. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.		

12. Ecological information


Ecological toxicity	Fish - Rainbow trout - fresh water	LC50 0.021 mg/L; 96 h (CAS no 7696-12-0)
	Fish - Oncorhynchus mykiss - Rainbow trout	LC50 0.0037 mg/L; 96 h (CAS no 7696-12-0)
	Aquatic Invertebrate - Daphnia magna (Water flea)	EC50 0.011 mg/L; 48 h (CAS no 7696-12-0)
	Fish - Cyprinus carpio - Carp	LC50 0.095-0.16 mg/L; 96 h (CAS no 7696-12-0)
	Fish - Bluegill (Lepomis macrochirus), fresh water	LC50 0.016 mg/L; 96 h (CAS no 26002-80-2)
	Aquatic Invertebrate - Daphnia Magna, Water flea, fresh water	EC50 0.0044 mg/L; 48 h(CAS no 26002-80-2)

	Fish- Pimephales promelas [semi-static]	LC50 2.2 mg/L; 96 h (CAS no 64742-47-8)
	Aquatic Invertebrate - Daphnia magna	EC50 3-10 mg/L; 48 h (CAS no 64742-47-8)
	Green Algae - Selenastrum capricornutum	EC50 >1000 mg/L; 72 h (CAS no 64742-47-8)
Persistence	Contains an or many ingredients that may be persistent in the environment.	
Degradability	The product is a mixture of which some ingredients are readily biodegradable (> 60% in 28 days) while other ingredients are not readily biodegradable (<60% in 28 days).	
Bioaccumulative potential	The product is a mixture of which some ingredients have a low bioaccumulation potential (Log Kow of <3 and / or BCF <500) while other ingredients have some potential to bioaccumulate (Log Kow of >3 and / or BCF >500).	
Mobility in soil	The product is a mixture of which some ingredients evaporate very easily from the surface of the soil. Moreover, some ingredients have very high mobility in soil, while other ingredients have moderate mobility in soil.	
Other adverse effects	This chemical does not deplete the ozone layer.	

13. Disposal considerations

	<p>Container Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. DO NOT pierce, cut, heat, or burn the container, even after use. Depressurize empty container (empty it of its propellant). Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.</p>
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14. Transport information

UN Number	UN 1950
UN Proper Shipping Name	AEROSOLS, FLAMMABLE
Environmental hazards	Marine pollutant.
Special precautions for user	Permit required for transportation with proper DANGER placards displayed on vehicle. Exemption available: LTD QTY according to TDG Canada - art. 1.17; Mode of transportation: rail, sea and road, applicable for Canadian domestic shipments. Quantitative limits: applicable for aerosol cans containing =< 1L each.
TDG - Transportation of	Dangerous Goods (Canada & US DOT)
Transport hazard class(es)	 Class 2.1
Packing group	
2020 Emergency Response Guidebook	126

IMO/IMDG - International Maritime Transport	
Classification	UN 1950. AEROSOLS, FLAMMABLE. Class 2.1 Emergency schedules (EmS-No) F-D, S-U
IATA - International Air Transport Association	
Classification	UN 1950. AEROSOLS, FLAMMABLE. Class 2.1
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

15. Regulatory information

PEST CONTROL PRODUCT

There are Canada-specific environmental requirements for handling, use and disposal of this pest control product that are indicated on the product label.

Hazardous Products Regulations Information:

This product has been classified in accordance with the amended Hazardous Products Act (HPA) and the Hazard Criteria of the Hazardous Products Regulations (HPR), and the SDS contains all the information required by the HPR.

Pest Control Products Act Registration Number: 30034

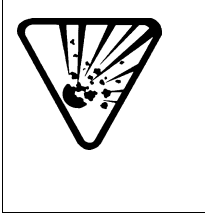

Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act (PCPA). These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control products label:

PCPA Label Hazard Communications:

PRESSURIZED.
 CAUTION EXPLOSIVE.
 READ THE LABEL BEFORE USING.
 KEEP OUT OF REACH OF CHILDREN.

Difference between SDS and pesticide label

PCPA Label		WHMIS 2015/SGH SDS	
Symbol(s)		Pictogram(s)	
Caution word	Caution Explosive	Signal Word	WARNING
Hazard Statement	PRESSURIZED.	Hazard Statement	H222: Extremely flammable aerosol H229: Pressurized container: may burst if heated

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Isobutane	75-28-5	X	X		X
Propane	74-98-6	X	X		X
Distillates (petroleum) hydrotreated light	64742-47-8	X	X		X
D-Phenothrin	26002-80-2				
Tetramethrin	7696-12-0				

CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
 DSL: Domestic Substances List Inventory
 NDSL: Non-Domestic Substances List Inventory
 NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CER CLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Prio.
Isobutane	75-28-5	X						X		
Propane	74-98-6	X						X		

Distillates (petroleum) hydrotreated light	64742-47-8	X								
D-Phenothrin	26002-80-2			X						
Tetramethrin	7696-12-0			X						

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65 No ingredients listed.

Other regulations		
	HMIS	NFPA

16. Other information

Date (YYYY-MM-DD)	KUUS INC. 2026-03-25
Version	01

Other information	<p>REFERENCES:</p> <ul style="list-style-type: none"> - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, https://hazmap.com/ - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), https://www.cnesst.gouv.qc.ca/fr - The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, https://pubchem.ncbi.nlm.nih.gov - ECOTOX Knowledgebase, US EPA, https://cfpub.epa.gov/ecotox/search.cfm <p>ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association OSHA: Occupational Safety and Health Administration (USA) NIOSH: National Institute for Occupational Safety and Health NTP: National Toxicology Program RSST: Règlement sur la santé et la sécurité du travail (Québec) GHS: Globally Harmonized System IARC: International Agency for Research on Cancer IDLH: Immediately Dangerous to Life or Health STEL: Short Term Exposure Limit (15 min) TWA: Time Weighted Averages WHMIS: Workplace Hazardous Materials Information System</p>
<p>The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.</p>	