SAFETY DATA SHEET

1. Identification

Product identifier	KD103D KNOCK DOWN SPID	ER KILLER
Other means of identification		
Product code	KD103D	
Recommended use	Pesticide	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/I	Distributor information	
Manufacturer		
Company name	KUUS INC.	
Address	450 TAPSCOTT ROAD	
	SCARBOROUGH, ON M1B1Y4	4
	Canada	
Telephone	General Assistance	1-416-298-7724
E-mail	Not available.	
Emergency phone number	Canutec	1-888-226-8832
		1-613-996-6666

2. Hazard(s) identification

Physical hazards		
Health hazards	Flammable aerosols	Category 1
	Sensitization, skin	Category 1
Label elements	Aspiration hazard	Category 1
Signal word	Danger	
Hazard statement	Extremely flammable aerosol. May be fatal skin reaction.	if swallowed and enters airways. May cause an allergic
Precautionary statement		
Prevention	Do not spray on an open flame or other ign	open flames and other ignition sources. No smoking. ition source. Do not pierce or burn, even after use. othing should not be allowed out of the workplace.
Response		ON CENTER/doctor. Do NOT induce vomiting. IF ON ation or rash occurs: Get medical advice/attention. before reuse.
Storage	Store locked up. Protect from sunlight. Do r	not expose to temperatures exceeding 50°C/122°F.
Disposal	Dispose of contents/container in accordanc	e with local/regional/national/international regulations.
Environmental hazards	Hazardous to the aquatic environment, acu hazard	te Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
Other hazards	None known.	
Supplemental information	None.	

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Isobutane		75-28-5	15 - 40
Naphtha (Petroleum), Hydrotreate Heavy	d	64742-48-9	5 - 10
Propane		74-98-6	3 - 7
Distillates (petroleum), Hydrotreated Light		64742-47-8	1 - 5
White Mineral Oil		8042-47-5	1 - 5
Permethrin		52645-53-1	0.1 - 1
Other components below reportab	le levels		40 - 70

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Not available.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage,	Level 1 Aerosol.
including any incompatibilities	Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Type STEL ational Health & Safety Code, Sc Type TWA s. (Occupational Exposure Limit mended) Type TWA 217/2006, The Workplace Safety Type STEL of of Exposure to Biological or C	Value 1000 ppm ts for Chemical Substances, Oc Value 200 mg/m3	cupational Health and Form Non-aerosol.
ational Health & Safety Code, Sc Type TWA s. (Occupational Exposure Limit mended) Type TWA 217/2006, The Workplace Safety Type STEL	hedule 1, Table 2) Value 1000 ppm ts for Chemical Substances, Oc Value 200 mg/m3	Form
Type TWA s. (Occupational Exposure Limit mended) Type TWA 217/2006, The Workplace Safety Type STEL	Value 1000 ppm ts for Chemical Substances, Oc Value 200 mg/m3 7 And Health Act) Value	Form
s. (Occupational Exposure Limit mended) Type TWA 217/2006, The Workplace Safety Type STEL	ts for Chemical Substances, Oc Value 200 mg/m3 And Health Act) Value	Form
mended) Type TWA 217/2006, The Workplace Safety Type STEL	Value 200 mg/m3 • And Health Act) Value	Form
Type TWA 217/2006, The Workplace Safety Type STEL	200 mg/m3 And Health Act) Value	-
217/2006, The Workplace Safety Type STEL	And Health Act) Value	Non-aerosol.
Type STEL	Value	
STEL		
	1000 ppm	
ol of Exposure to Biological or C		
	Chemical Agents)	
Туре	Value	
TWA	800 ppm	
ry of Labor - Regulation Respec Type	ting the Quality of the Work En Value	vironment)
TWA	1800 mg/m3 1000 ppm	
lo biological exposure limits noted	for the ingredient(s).	
Ls: Skin designation		
otreated Light (CAS Car	h be absorbed through the skin.	
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.		
		(or goggles).
	nt gloves. Suitable gloves can be r	recommended by the glove
	t elething lies of an importions	
	TWA Ty of Labor - Regulation Respect Type TWA Io biological exposure limits noted LS: Skin designation Detreated Light (CAS Car Good general ventilation (typically fould be matched to conditions. If r other engineering controls to ma xposure limits have not been esta ch as personal protective equip face shield is recommended. Weat Vear appropriate chemical resistar upplier.	TWA 800 ppm ry of Labor - Regulation Respecting the Quality of the Work En Yalue TWA 1800 mg/m3 1000 ppm 1000 ppm Io biological exposure limits noted for the ingredient(s).

Respiratory protection	If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

•	•
Appearance	
Physical state	Gas.
Form	Aerosol.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	149.18 °F (65.1 °C) estimated
Flash point	-99.4 °F (-73.0 °C) PROPELLANT estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	1.2 % estimated
Flammability limit - upper (%)	9.3 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	720.14 °F (382.3 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	0.844 estimated
10. Stability and reactivity	

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Nitrates. Fluorine. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters	May be fatal if swallowed and enters airways. May cause an allergic skin reaction.		
Components	Species	Test Results		
Distillates (petroleum), Hydrot	reated Light (CAS 64742-47-8)			
Acute				
Dermal				
LD50	Rabbit	> 2000 mg/kg		
		> 2000 mg/kg, 24 Hours		
Inhalation				
LC50	Rat	> 7.5 mg/l, 6 Hours		
		> 4.6 mg/l, 4 Hours		
Oral				
LD50	Rat	> 5000 mg/kg		
lsobutane (CAS 75-28-5)				
Acute				
Inhalation				
LC50	Mouse	1237 mg/l, 120 Minutes		
		52 %, 120 Minutes		
	Rat	1355 mg/l		
Naphtha (Petroleum), Hydrotre	eated Heavy (CAS 64742-48-9)			
Acute	,			
Dermal				
LD50	Rabbit	> 1900 mg/kg, 24 Hours		
Inhalation				
LC50	Rat	> 5000 mg/m3, 4 Hours		
		> 4980 mg/m3		
		> 4980 mg/m3, 4 Hours		
		> 4.96 mg/l, 4 Hours		
Oral				
LD50	Rat	4820 mg/kg		
Propane (CAS 74-98-6)				
Acute				
Inhalation				
LC50	Mouse	1237 mg/l, 120 Minutes		
		52 %, 120 Minutes		
	Rat	1355 mg/l		
		658 mg/l/4h		
		000 mg///+m		

Components	Species	Test Results	
White Mineral Oil (CAS 8042-47-5	5)		
<u>Acute</u>			
Dermal			
LD50	Rabbit	> 2000 mg/kg, 24 Hours	
Inhalation			
LC50	Rat	2.18 mg/l, 4 Hours	
Oral			
LD50	Rat	> 5000 mg/kg	
		5000.0001 mg/kg	
* Estimates for product may b	be based on additional component d	ata not shown.	
Skin corrosion/irritation	Prolonged skin contact may cause		
Serious eye damage/eye irritation	Direct contact with eyes may cause	se temporary irritation.	
Respiratory or skin sensitizatio	n		
Respiratory sensitization	Not a respiratory sensitizer.		
Skin sensitization	May cause an allergic skin reaction	n.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.		
Carcinogenicity	Risk of cancer cannot be excluded with prolonged exposure.		
IARC Monographs. Overall	Evaluation of Carcinogenicity		
Permethrin (CAS 52645-	53-1) 3	Not classifiable as to carcinogenicity to humans.	
Reproductive toxicity	This product is not expected to ca	use reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Not classified.		
Specific target organ toxicity - repeated exposure	Not classified.		
Aspiration hazard	May be fatal if swallowed and ent	ers airways.	
Chronic effects	Prolonged exposure may cause c	Prolonged exposure may cause chronic effects.	
12. Ecological information	n		
Ecotoxicity	Very toxic to aquatic life with long	lasting effects.	
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Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.9 mg/l, 96 hours
Permethrin (CAS 5264	45-53-1)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.0006 - 0.0025 mg/l, 48 hours
Fish	LC50	Apache trout (Oncorhynchus gilae apache)	0.0013 - 0.0022 mg/l, 96 hours
White Mineral Oil (CA	S 8042-47-5)		
Aquatic			
Fish	LC50	Fish	10000.0001, 96 Hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / wa	ater (log Kow)	
Isobutane	2.76	
Permethrin	6.5	
Propane	2.36	

Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

TDG	
UN number	UN1950
UN proper shipping name	AEROSOLS, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	
Packing group	Not applicable.
Environmental hazards	D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
IATA	
UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	Yes
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.
IMDG	
UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
Subsidiary risk	
Label(s)	None
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	Yes
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Not applicable. Annex II of MARPOL 73/78 and the IBC Code

IATA; IMDG; TDG



Marine pollutant



IMDG Regulated Marine Pollutant.

15. Regulatory information

Canadian regulations

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed. Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable. Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

Issue date	05-12-2023
Version #	02
Disclaimer	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.
Revision information	Product and Company Identification: Alternate Trade Names Hazard(s) identification: Hazard statement Hazard(s) identification: Response Hazard(s) identification: Storage Hazard(s) identification: GHS Symbols Composition / Information on Ingredients: Component Summary First-aid measures: Most important symptoms/effects, acute and delayed Handling and storage: Precautions for safe handling Handling and storage: Conditions for safe storage, including any incompatibilities Toxicological information: Acute toxicity Toxicological information: Aspiration hazard Toxicological information: Ingestion Toxicological information: Symptoms related to the physical, chemical and toxicological characteristics GHS: Classification