

SAFETY DATA SHEET

1. Identification

Product identifier KD242C KNOCK DOWN MAX BEDBUG KILLER & FLEA KILLER

Other means of identification

Product code KD242C

Recommended use Pesticide

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name KUUS INC.
Address 450 TAPSCOTT ROAD
SCARBOROUGH, ON M1B 1Y4
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 Flammable aerosols Category 1

Health hazards Aspiration hazard Category 1

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. May be fatal if swallowed and enters airways.

Precautionary statement

Prevention Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.

Response IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

Storage Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Environmental hazards Hazardous to the aquatic environment, acute hazard 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 | % |
|-------------------------------------|--------------------------|------------|---------|
| Naphtha (petroleum), Heavy Alkylate | | 64741-65-7 | 40 - 70 |
| Propane | | 74-98-6 | 15 - 40 |
| Isobutane | | 75-28-5 | 7 - 13 |

| Chemical name | Common name and synonyms | CAS number | % |
|---|--------------------------|------------|---------|
| Piperonyl Butoxide | | 51-03-6 | 3 - 7 |
| Distillates (petroleum), Hydrotreated Light | | 64742-47-8 | 1 - 5 |
| Pyrethrins | | 8003-34-7 | 0.1 - 1 |
| Other components below reportable levels | | | 0.1 - 1 |

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

4. First-aid measures

| | |
|---|---|
| Inhalation | If symptoms develop move victim to fresh air. Get medical attention if symptoms persist. |
| Skin contact | Wash off with soap and water. Get medical attention if irritation develops and persists. |
| Eye contact | Rinse with water. Get medical attention if irritation develops and persists. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Most important symptoms/effects, acute and delayed | Aspiration may cause pulmonary edema and pneumonitis. |
| 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. |

5. Fire-fighting measures

| | |
|--|--|
| Suitable extinguishing media | Alcohol resistant foam. Powder. Carbon dioxide (CO ₂). |
| 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. 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. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. |
| Environmental precautions | Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. 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. 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, including any incompatibilities

Level 3 Aerosol.

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

Occupational exposure limits

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|----------------------------|------|---------------------|
| Isobutane (CAS 75-28-5) | STEL | 1000 ppm |
| Pyrethrins (CAS 8003-34-7) | TWA | 5 mg/m ³ |

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

| Components | Type | Value |
|----------------------------|------|---------------------|
| Propane (CAS 74-98-6) | TWA | 1000 ppm |
| Pyrethrins (CAS 8003-34-7) | TWA | 5 mg/m ³ |

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

| Components | Type | Value | Form |
|--|------|-----------------------|--------------|
| Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8) | TWA | 200 mg/m ³ | Non-aerosol. |
| Pyrethrins (CAS 8003-34-7) | TWA | 5 mg/m ³ | |

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

| Components | Type | Value |
|----------------------------|------|---------------------|
| Isobutane (CAS 75-28-5) | STEL | 1000 ppm |
| Pyrethrins (CAS 8003-34-7) | TWA | 5 mg/m ³ |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Components | Type | Value |
|----------------------------|------|---------------------|
| Isobutane (CAS 75-28-5) | TWA | 800 ppm |
| Pyrethrins (CAS 8003-34-7) | TWA | 5 mg/m ³ |

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

| Components | Type | Value |
|----------------------------|------|------------------------------------|
| Propane (CAS 74-98-6) | TWA | 1800 mg/m ³ 1000 ppm |
| Pyrethrins (CAS 8003-34-7) | TWA | 5 mg/m ³ |

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Canada - British Columbia OELs: Skin designation

Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8) Can be absorbed through the skin.

Appropriate engineering controls

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.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Wear safety glasses with side shields (or goggles).

| | |
|---------------------------------------|--|
| Skin protection | |
| Hand protection | Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. |
| Other | Wear suitable protective clothing. |
| 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. |

9. Physical and chemical properties

Appearance

| | |
|--|--|
| Physical state | Liquid. |
| Form | Aerosol. |
| Color | Not available. |
| Odor | Not available. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Flash point | -156.0 °F (-104.4 °C) Propellant estimated |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not applicable. |

Upper/lower flammability or explosive limits

| | |
|---------------------------------------|-----------------|
| Flammability limit - lower (%) | 1.2 % estimated |
| Flammability limit - upper (%) | 7.8 % 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 | 718.6 °F (381.44 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |

Other information

| | |
|--------------------------------------|----------------------|
| Explosive properties | Not explosive. |
| Heat of combustion (NFPA 30B) | 41.23 kJ/g estimated |
| Oxidizing properties | Not oxidizing. |
| Specific gravity | 0.222 estimated |
| VOC (Weight %) | 84.71 % 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 | No adverse effects due to skin contact are expected. |
| 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.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

| Components | Species | Test Results |
|--|---------|---|
| Distillates (petroleum), Hydrotreated 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 |
| Isobutane (CAS 75-28-5) | | |
| Acute | | |
| Inhalation | | |
| LC50 | Mouse | 1237 mg/l, 120 Minutes 52 %, 120 Minutes |
| | Rat | 1355 mg/l |
| Piperonyl Butoxide (CAS 51-03-6) | | |
| Acute | | |
| Dermal | | |
| LD50 | - | > 2000 mg/kg |
| Inhalation | | |
| LC50 | Rat | > 5.2 mg/l, 4 Hours |
| Oral | | |
| LD50 | Rat | > 2000 mg/kg |
| Propane (CAS 74-98-6) | | |
| Acute | | |
| Inhalation | | |
| LC50 | Mouse | 1237 mg/l, 120 Minutes 52 %, 120 Minutes |
| | Rat | 1355 mg/l |

| Components | Species | Test Results |
|------------|---------|--------------|
| | | 658 mg/l/4h |

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Canada - British Columbia OELs: Respiratory or skin sensitiser

Pyrethrins (CAS 8003-34-7) Capable of causing respiratory, dermal or conjunctival sensitization.

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

ACGIH Carcinogens

Pyrethrins (CAS 8003-34-7) A4 Not classifiable as a human carcinogen.

Canada - Manitoba OELs: carcinogenicity

PYRETHRUM (CAS 8003-34-7) Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Piperonyl Butoxide (CAS 51-03-6) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity This product is not expected to cause 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 enters airways.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

| Components | Species | Test Results |
|--|--|--------------------------------|
| Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8) | | |
| Aquatic | | |
| Fish | LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 2.9 mg/l, 96 hours |
| Naphtha (petroleum), Heavy Alkylate (CAS 64741-65-7) | | |
| Aquatic | | |
| Algae | IC50 Algae | 30000 mg/L, 72 Hours |
| Piperonyl Butoxide (CAS 51-03-6) | | |
| Aquatic | | |
| Fish | LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 0.0027 - 0.0043 mg/l, 96 hours |
| Pyrethrins (CAS 8003-34-7) | | |
| Aquatic | | |
| Crustacea | EC50 Water flea (Daphnia) | 0.018 - 0.032 mg/l, 48 hours |
| Fish | LC50 Brown trout (Salmo trutta) | 0.0165 - 0.0229 mg/l, 96 hours |

* Estimates for product may be based on additional component data not shown.

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

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Isobutane 2.76
Piperonyl Butoxide 4.75

Partition coefficient n-octanol / water (log Kow)

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

Yes

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

This product meets the exemption requirements and may be shipped as a limited quantity.

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)

2.1

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 Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

IATA; IMDG; TDG



Marine pollutant



General information

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

Australia

Canada

Canada

China

Inventory name

Australian Inventory of Chemical Substances (AICS)

Domestic Substances List (DSL)

Non-Domestic Substances List (NDSL)

Inventory of Existing Chemical Substances in China (IECSC)

On inventory (yes/no)*

No

Yes

No

No

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|-------------------------------|
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | 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) | No |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| 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 06-06-2019

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Version # 02

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