

## SAFETY DATA SHEET

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BRODI SPECIALTY PRODUCTS LTD.  
3175 14th Avenue, Unit 1  
Markham, Ontario, L3R 0H1  
Canada  
1-877-744-0751

PRODUCT: KLEEN OUT

CODE: 7288

## SECTION 01: IDENTIFICATION

Supplier identifier..... BRODI SPECIALTY PRODUCTS LTD.  
3175 14th Avenue, Unit 1  
Markham, Ontario  
Canada  
L3R 0H1  
1-877-744-0751  
Product identifier..... KLEEN OUT  
Product code..... 7288  
Emergency telephone number..... CANUTEC 24-hour number (613-996-6666).  
Product use..... Cleaner disinfectant.

## SECTION 02: HAZARD IDENTIFICATION



Hazard classification..... Skin Irritation — Category 2. Serious Eye Damage — Category 1. Skin Sensitizer — Category 1. Reproductive Toxicity — Category 2. Specific Target Organ Toxicity — Repeated Exposure — Category 2 (liver, kidney, blood).  
Signal word..... DANGER.  
Hazard statement..... H315 Causes skin irritation. H318 Causes serious eye damage. H317 May cause an allergic skin reaction. H361 Suspected of damaging fertility or the unborn child. H373 May cause damage to organs (liver, kidney, blood) through prolonged or repeated exposure.  
Precautionary statements..... P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe mist/vapours/spray. P264 Wash thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P308+P313 IF exposed or concerned: Get medical advice/attention. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash before reuse. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P405 Store locked up. P501 Dispose of contents/container to an approved waste disposal plant.  
Other hazards..... None.

## SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	WT. %
2-Butoxyethanol	111-76-2	3.5-4
Alcohols, C12-15, ethoxylated	68131-39-5	2.2-2.7
D-limonene	5989-27-5	1-1.5
Alkyl dimethyl benzyl ammonium chloride (C12-16)	68424-85-1	0.5 - <1
Potassium hydroxide	1310-58-3	0.4-0.5

## SECTION 04: FIRST-AID MEASURES

Routes of exposure  
Inhalation..... Remove to fresh air. If irritation persists, consult a physician.  
Ingestion..... Rinse mouth and then drink plenty of water. Do not induce vomiting. Seek medical attention if necessary.  
Skin contact..... Rinse skin with plenty of water. If irritation persists, call a doctor.  
Eye contact..... Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical aid.

**PRODUCT: KLEEN OUT****CODE: 7288****SECTION 04: FIRST-AID MEASURES**

Most important symptoms and effects, both acute and delayed  
 Medical attention and special treatment....

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.  
 IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved.

**SECTION 05: FIRE-FIGHTING MEASURES**

Extinguishing media..... Use an extinguishing agent suitable for the surrounding fire.  
 Hazardous combustion products..... Carbon oxides. Harmful vapours.  
 Special protective equipment and precautions ..... Firefighters should be equipped with self-contained breathing apparatus and turn-out gear. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Cool closed containers exposed to fire with water spray.  
 Sensitivity to static discharge..... Product is not sensitive to static discharge.  
 Sensitivity to mechanical impact..... Product is not sensitive to mechanical impact.  
 Further information..... Contaminated extinguishing water must be disposed of in accordance with official regulations.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures Wear protective equipment: goggles, chemically resistant clothing and gloves, and appropriate respirator if in a confined area. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up.  
 Environmental precautions..... Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Ventilate the area. Prevent further leakage or spillage if safe to do so.  
 Methods and materials for containment and cleaning up Absorb in vermiculite, dry sand or earth and place into container. Contaminated absorbent material may pose the same hazards as the spilled product. Dispose of absorbed material in accordance with regulations.

**SECTION 07: HANDLING AND STORAGE**

Handling precautions..... Use good industrial hygiene practices in handling this material. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin or on clothing. Avoid inhalation of mists/vapours/fumes. Wash thoroughly after handling. Keep container tightly closed.  
 Storage needs..... Keep in a dry, cool and well-ventilated place. Keep containers tightly closed when not in use.  
 Materials to avoid..... Do not mix with other chemicals or cleaners. Keep away from strong acids. Keep away from strong bases. Keep away from oxidizing agents.

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL NIOSH
2-Butoxyethanol	20 ppm	not available	50 ppm	not available	not available
Alcohols, C12-15, ethoxylated	not available	not available	not available	not available	not available
D-limonene	not available	not available	not available	not available	not available
Alkyl dimethyl benzyl ammonium chloride (C12-16)	not available	not available	not available	not available	not available
Potassium hydroxide	ceiling: 2 mg/m3	no data available	no data available	no data available	no data available
Engineering controls.....	Good general ventilation (typically 10 air changes per hour) should be used.				
Individual protection measures					
Eye/type.....	Safety glasses with side-shields. Wear face shield if splashing hazard exists.				
Gloves/type.....	Wear chemical resistant protective gloves.				
Respiratory/type.....	Generally not required. Wear respiratory protection if ventilation is inadequate.				
Clothing/type.....	Wear clean long legged, long sleeved work clothes.				
Hygiene measures.....	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities.				

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## SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance..... liquid.  
 Color..... orange.  
 Odour..... citrus.  
 Odour threshold..... not available.  
 pH..... 12-12.5.  
 Melting point (°C)..... not applicable.  
 Freezing point (°C)..... 0.  
 Initial boiling point (°C)..... 100.  
 Flash point (°C), Method..... >100°C, closed cup.  
 Evaporation rate..... not available.  
 Upper flammability limit (% vol)..... not available.  
 Lower flammability limit (% vol)..... not available.  
 Vapour pressure (mm Hg)..... 17.5.  
 Vapour density (air=1)..... > 1.  
 Relative density/Specific Gravity..... 1.02.  
 Water solubility..... soluble.  
 Solubility in other solvents..... not available.  
 Partition coefficient — n-octanol/water..... not available.  
 Auto ignition temperature (°C)..... > 200 °C.  
 Thermal decomposition temperature..... not available.  
 Viscosity..... thin liquid.

## SECTION 10: STABILITY AND REACTIVITY

Reactivity..... No hazardous reactions if stored and handled as prescribed/indicated.  
 Chemical stability..... The product is stable if stored and handled as prescribed/indicated.  
 Possibility of hazardous reactions..... No hazardous reactions when stored and handled according to instructions. The product is chemically stable.  
 Conditions to avoid..... Do not mix with anything but water.  
 Incompatible materials..... Acids, strong oxidizing agents.  
 Hazardous decomposition products..... No hazardous decomposition products if stored and handled as prescribed/indicated.

## SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
2-Butoxyethanol	2.2 mg/l (inhalation-rat, 4 h)	530 mg/kg (oral-rat); 450 mg/kg (dermal-rabbit)
Alcohols, C12-15, ethoxylated	not available	1,650-2,000 mg/kg (oral-rat); >2,000 mg/kg (dermal-rabbit)
D-limonene	>20 mg/l (inhalation-rat, 4h)	4,400 mg/kg (oral-rat); >5,000 mg/kg (dermal-rabbit)
Alkyl dimethyl benzyl ammonium chloride (C12-16)	0.054-0.51 mg/l mist (inhalation-rat, 4H)	344 mg/kg (oral-rat); >2,000 mg/kg (dermal-rabbit)
Potassium hydroxide	no data available	273 mg/kg (oral-rat); 2000 mg/kg (dermal-rabbit)
Routes of exposure		
Inhalation.....	Inhalation of vapours may cause irritation to the nose, throat and respiratory tract.	
Ingestion.....	Ingestion may cause pain, irritation and burns in the mouth, throat and stomach.	
Skin contact.....	Contact may cause skin irritation. May cause skin sensitization or other allergic responses.	
Eye contact.....	Can cause eye damage.	
Acute effects		
Acute oral toxicity.....	Acute toxicity estimate > 2,000 mg/kg. Method: calculation method. Virtually nontoxic after a single ingestion.	
Acute dermal toxicity.....	LD50 (Rabbit) : > 2,000 mg/kg. Method: calculation method. Virtually nontoxic after a single skin contact.	
Acute inhalation toxicity.....	Acute toxicity estimate : > 20 mg/l. Virtually nontoxic by inhalation. Method: calculation method.	
Skin corrosion/irritation.....	Result: Severe skin irritation.	
Serious eye damage/eye irritation.....	Result: Corrosive to eyes.	
Respiratory or skin sensitisation.....	D-Limonene is known to be a skin sensitizer. Repeated or prolonged contact may cause skin sensitization .	
Specific target organ toxicity (STOT) ..... single exposure	Based on the available information there is no specific target organ toxicity to be expected after a single exposure.	
Aspiration hazard.....	No aspiration hazard expected.	
Chronic toxicity/effects		
Specific target organ toxicity (STOT) ..... repeated exposure	Absorption of 2-Butoxyethanol by inhalation and/or repeated skin contact may cause injury to liver, kidney and blood damage .	

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**SECTION 11: TOXICOLOGICAL INFORMATION**

Carcinogenicity.....	No carcinogenic substances as defined by IARC, NTP, OSHA and/or ACGIH.
Reproductive toxicity.....	May cause adverse reproductive effects. Possible risk of harm to the unborn child. 2-Butoxyethanol is considered fetotoxic; has caused toxic reproductive effects in laboratory animals at maternally toxic doses .
Germ Cell Mutagenicity.....	No known significant effects or critical hazards.
Remarks.....	The product has not been tested. The statement has been derived from the properties of the individual components.
Symptoms of Exposure.....	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity.....	May cause long-term adverse effects in the aquatic environment.
Persistence and degradability.....	The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.
Bioaccumulative potential.....	No data available.
Mobility in soil.....	No data available.
Other adverse effects.....	Very toxic to aquatic life with long lasting effects.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Disposal methods	
Waste disposal of substance.....	Dispose of in accordance with national, state and local regulations.
Container disposal .....	Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

**SECTION 14: TRANSPORT INFORMATION**

TDG classification.....	Not regulated as a dangerous good.
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**SECTION 15: REGULATORY INFORMATION**

WHMIS regulatory status.....	This product has been classified in accordance with the hazard criteria of the Canadian Hazardous Products Regulations and the Safety Data Sheet contains all the information required by the Hazardous Products Regulations (WHMIS 2015). This product is WHMIS 2015 controlled.
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**SECTION 16: OTHER INFORMATION**

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.
Prepared by: .....	CanChem Consultant
Preparation date.....	MAY 10/2018