

# MATERIAL SAFETY DATA SHEET



# Klenzoid

## 1. Product and Company Identification

<b>Product Name</b>	IsoKlenz-KT
<b>CAS #</b>	Mixture
<b>Product Use</b>	Water treatment
<b>Manufacturer information</b>	Klenzoid Canada Inc. 245 Matheson Blvd East Units 1- 4 Mississauga, ON L4Z 3C9 CA Phone: 1-905-712-4000 24- Hr Emergency Phone Number: 1-613-996-6666 (CANUTEC)

## 2. Hazards Identification

<b>Emergency overview</b>	WARNING CORROSIVE POTENTIAL SKIN SENSITIZER  PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Potential skin sensitizer. Danger - corrosive to eyes and causes skin burns. May be fatal if swallowed or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Do not swallow. Avoid breathing vapours or spray mists. Wash skin thoroughly with soap and water after handling. Remove contaminated clothing and wash separately from other laundry before reuse. Wear long pants, a long-sleeved shirt, chemical-resistant gloves, a full face NIOSH-approved respirator and a chemical-resistant apron during mixing/loading, clean up and repair.
<b>Potential short term health effects</b>	
<b>Routes of exposure</b>	Eye, Skin contact, Inhalation, Ingestion.
<b>Eyes</b>	Causes chemical burns. May cause blindness.
<b>Skin</b>	Causes chemical burns. Contains a potential skin sensitizer.
<b>Inhalation</b>	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
<b>Ingestion</b>	Harmful or fatal if swallowed. May cause chemical burns to mouth, throat and stomach.
<b>Target organs</b>	Eyes. Skin. Respiratory system.
<b>Chronic effects</b>	Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.
<b>Signs and symptoms</b>	The product causes burns of eyes, skin and mucous membranes.
<b>Potential environmental effects</b>	See section 12.

## 3. Composition/Information on ingredients

Components	CAS #	Percent
5-Chloro-2-methyl-4-isothiazolin-3-one	26172-55-4	1 - 5
2-Methyl-4-isothiazolin-3-one	2682-20-4	0.1 - 1
<b>Composition comments</b>	Active ingredient(s) are listed above.	

## 4. First Aid Measures

<b>First aid procedures</b>	
<b>Eye contact</b>	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
<b>Skin contact</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
<b>Inhalation</b>	Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**Ingestion**

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**Notes to physician**

Probable mucosal damage may contraindicate the use of gastric lavage. Appropriate treatment to help protect the affected person against circulatory shock, respiratory depression, and convulsion may be needed.

**General advice**

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

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**5. Fire-fighting Measures**

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<b>Flammable properties</b>	Not flammable by WHMIS criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Treat for surrounding material.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Firefighters should wear a self-contained breathing apparatus.
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen chloride. Oxides of sulphur.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available.
<b>Sensitivity to static discharge</b>	Not available.

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**6. Accidental release measures**

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<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Environmental precautions</b>	Do not discharge into lakes, streams, ponds or public waters.
<b>Methods for containment</b>	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

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**7. Handling and storage**

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<b>Handling</b>	Ensure adequate ventilation. Do not get this material in your eyes, on your skin, or on your clothing. Avoid breathing vapours or mists of this product. Use good industrial hygiene practices in handling this material.
<b>Storage</b>	Keep out of the reach of children. Store in a closed container away from incompatible materials.

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**8. Exposure controls/Personal protection**

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<b>Exposure limits</b>	Not available.
<b>Engineering controls</b>	General ventilation normally adequate.

**Personal protective equipment**

<b>Eye/Face protection</b>	Wear chemical goggles.
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Skin and body protection</b>	As required by employer code. Use of protective coveralls and long sleeves is recommended.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Avoid breathing mists or vapours.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

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**9. Physical and chemical properties**

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<b>Appearance</b>	Liquid
<b>Colour</b>	Light Green
<b>Form</b>	Liquid
<b>Odour</b>	Pungent
<b>Odour threshold</b>	Not available.
<b>Physical state</b>	Liquid.
<b>pH</b>	4.3 (100%)
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	100 °C (212 °F)
<b>Pour point</b>	Not available.
<b>Evaporation Rate</b>	Not available
<b>Flash point</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapour pressure</b>	Not available
<b>Vapour density</b>	Not available
<b>Specific gravity</b>	1.03
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Solubility (Water)</b>	Complete
<b>Relative density</b>	Not available.
<b>Viscosity</b>	Water thin
<b>VOC</b>	Not available
<b>Percent volatile</b>	Not available

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**10. Stability and reactivity**

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<b>Reactivity</b>	May react with incompatible materials.
<b>Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals.
<b>Incompatible materials</b>	Acids. Oxidizers. Reducing agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen chloride. Oxides of sulphur.

## 11. Toxicological information

### Toxicological data

Components	Species	Test results
2-Methyl-4-isothiazolin-3-one (CAS 2682-20-4)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	660 mg/kg
		242 mg/kg
<i>Inhalation</i>		
LC50	Rat	1.4 mg/l/4h
		0.1 mg/L, 4 Hours
<i>Oral</i>		
LD50	Rat	457 mg/kg
		235 mg/kg, male
		183 mg/kg, female
5-Chloro-2-methyl-4-isothiazolin-3-one (CAS 26172-55-4)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	660 mg/kg
<i>Inhalation</i>		
LC50	Rat	1.2 mg/l/4h
<i>Oral</i>		
LD50	Rat	481 mg/kg

### Effects of acute exposure

<b>Eye contact</b>	Causes chemical burns. May cause blindness.
<b>Skin contact</b>	Causes chemical burns. Contains a potential skin sensitizer.
<b>Inhalation</b>	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
<b>Ingestion</b>	Harmful or fatal if swallowed. May cause chemical burns to mouth, throat and stomach.
<b>Sensitisation</b>	Contains a potential skin sensitizer.
<b>Chronic effects</b>	Non-hazardous by WHMIS criteria.
<b>Carcinogenicity</b>	Non-hazardous by WHMIS criteria.
<b>Mutagenicity</b>	Non-hazardous by WHMIS criteria.
<b>Reproductive effects</b>	Non-hazardous by WHMIS criteria.
<b>Teratogenicity</b>	Non-hazardous by WHMIS criteria.
<b>Name of Toxicologically Synergistic Products</b>	Not available.

## 12. Ecological information

**Ecotoxicity** See below

### Ecotoxicological data

Components	Species	Test results	
2-Methyl-4-isothiazolin-3-one (CAS 2682-20-4)			
<b>Aquatic</b>			
Crustacea	EC50	Calanoid copepod ( <i>Acartia clausi</i> )	0.056 mg/L, 48 Hours
		Water flea ( <i>Daphnia magna</i> )	0.18 mg/L, 48 Hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	0.07 mg/L, 96 Hours
		Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )	0.07 mg/L, 96 Hours

Components	Species	Test results
5-Chloro-2-methyl-4-isothiazolin-3-one (CAS 26172-55-4)		
Algae	IC50	Algae 0.31 mg/L, 72 Hours
Crustacea	EC50	Daphnia 4.71 mg/L, 48 Hours
<b>Persistence and degradability</b>	Not available.	
<b>Bioaccumulation/accumulation</b>	Not available	
<b>Mobility in environmental media</b>	Not available.	
<b>Environmental effects</b>	Not available.	
<b>Aquatic toxicity</b>	This product is toxic to fish and other aquatic organisms. It is not to be used in circumstances that would cause or allow it to enter lakes, streams, ponds, estuaries, oceans or other waters in contravention of federal or provincial regulatory requirements. The requirements of applicable laws should be determined before using product.	
<b>Partition coefficient</b>	Not available.	
<b>Chemical fate information</b>	Not available.	

### 13. Disposal considerations

<b>Disposal instructions</b>	Triple or pressure-rinse the empty container. Add the rinsings to the treatment site. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer provincial regulatory agency in case of a spill, and for cleanup of spills.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

### 14. Transport information

<b>General</b>	Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of the product will appear below.
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#### Transportation of Dangerous Goods (TDG - Canada)

##### Basic shipping requirements:

<b>UN number</b>	UN2922
<b>Proper shipping name</b>	Corrosive liquid, toxic, n.o.s.
<b>Technical name</b>	5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE
<b>Hazard class</b>	8
<b>Subsidiary hazard class</b>	6.1
<b>Packing group</b>	II
<b>Special provisions</b>	16

#### TDG



### 15. Regulatory information

<b>Canadian federal regulations</b>	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. For use in Industrial or Food processing plants where cooling water does not come in direct contact with potable water or food products. (3100-3/K038).
<b>WHMIS classification</b>	Exempt - Registered product - (PCP 22260)

**Inventory Status**

Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**16. Other information**

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

<b>HEALTH</b>	<input type="checkbox"/> *	<input type="checkbox"/> 3
<b>FLAMMABILITY</b>	<input type="checkbox"/>	<input type="checkbox"/> 0
<b>PHYSICAL HAZARD</b>	<input type="checkbox"/>	<input type="checkbox"/> 0
<b>PERSONAL PROTECTION</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/> X

**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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**Effective date**

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**Expiry date**

15-June-2019

**Prepared by**

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**Other information**

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.