



*your partner in food safety*

# SDS

## Safety Data Sheet

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### 1) Product Identification

**Product Name:** Freeze Kleen

**Product Code:** I00057

**Recommended Use:** Cleaner for freezers and coolers.

**Producer:** Birko Corporation  
9152 Yosemite Street  
Henderson, CO 80640-8027

**Contact Information:** (303) 289-1090 or 1-800-525-0476

**Emergency Number:** CHEMTREC 1-800-424-9300

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### 2) Hazard(s) Identification

Health	Environmental	Physical
Acute Toxicity Cat. 5 Skin Corrosion Cat. 2 Eye Effects Cat. 2B	Aquatic Toxicity Acute Cat. 3	Flammable Liquid Cat. 1

**Labeling:****Symbol:****Signal Word: Danger****Flammable, Target Organ Toxicity, Irritant, Aquatic Toxicity**

**Hazard Statement(s):** May causes irreversible eye damage. Harmful or fatal if swallowed. Do not get into eyes, on skin, or on clothing. Corrosive to certain types of metals.

**Precautionary Statement(s):** Use rubber gloves, protective splash-proof goggles, and protective clothing. Remove contaminated clothing and wash before re-use. Do not contaminate food, feed, or water. Keep container closed when not in use.

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**3) Composition/ Information on Ingredients**

Name(s)	Synonym(s)	CAS Number	Weight %
Ethanol	Ethyl alcohol	64-17-5	< 80%
Isopropanol	2-propanol	67-63-0	< 10%
Methyl Isobutyl Ketone	Isopropylacetone	108-10-1	< 5%

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**4) First-Aid Measures**

Inhalation	Skin Contact	Eye Contact	Ingestion
Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.	Wash with soap and water. Get medical attention if irritation develops or persists.	Flush eyes with water for 15 minutes. Get medical attention.	Do not induce vomiting. Give milk or water. Get immediate medical attention. Careful evacuation of stomach by medical personnel imperative.

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**5) Firefighting Measures**

**Suitable Extinguishing Media:** Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

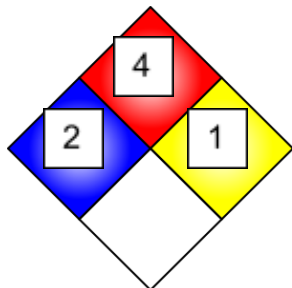
**Unsuitable Extinguishing Media:** N/A

**Flashpoint and Method:** ~(57°F) ASTM D56

**Flammable Limits:** 3.3 to 19.0

**Specific Hazards:** Always wear self-contained breathing apparatus when fighting a chemical fire.

**Special Protective Actions for Fire-Fighters:** Flammable liquid and vapor.



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## 6) Accidental Release Measures

**Personal Precautions:** Be sure to use all necessary Personal Protective Equipment

**Environmental Precautions:** Keep material out of storm sewers and ditches which lead to waterways.

Land spill: Spills and releases may have to be reported to Federal and/or local authorities. Air spill: Control or stop the loss of volatile materials to the atmosphere.

**Methods and Materials for Containment and Clean-Up:** For small spills: Absorb liquid and place in sealed container for disposal. Vapors can travel to an ignition source. Large Spills Absorb liquid and place in sealed container for disposal. Vapors can travel to an ignition source. Avoid runoff into storm sewers and ditches which lead to water ways. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. If this material is released into a work area, evacuate the area immediately.

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## 7) Handling and Storage

**Precautions for Safe Handling:** Use with sufficient ventilation to keep employee exposure below recommended limits. Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Do not allow product to contact open flame or electrical heating elements.

**Conditions for Safe Storage:** Keep container closed when not in use. Store in a cool, dry location. Keep away from sources of ignition.

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## 8) Exposure Controls and Personal Protection

**Appropriate Engineering Controls:** Use only in a well ventilated area. Use explosion-proof ventilation equipment.

### Exposure Limits:

Name (CAS-No.)	PEL	TLV
Ethanol (64-17-5)	OHSA 1900 mg/m <sup>3</sup>	ACGIH 1880 mg/m <sup>3</sup>
Isopropanol (67-63-0)	OHSA 400 ppm	ACGIH 400 ppm
Methyl Isobutyl Ketone (108-10-1)	OSHA 100 ppm	ACGIH 50 ppm

### Personal Protective Equipment

Eye/Face	Gloves
	

**Eye/Face:** Safety glasses

**Skin:** Wear appropriate body covering clothing.

**Gloves:** Wear appropriate chemical resistant gloves.

**Protective Material Types:** Neoprene, butyl rubber, or vinyl gloves.

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## 9) Physical and Chemical Properties

**Physical Form:** Liquid

**Appearance:** Blue

**Odor:** Alcohol

**pH:** NA

**Melting Point:** Not available

**Freezing Point:** - 130°F

**Boiling Point:** 80°F

**Flash Point:** Not established

**Evaporation Rate:** > 1

**Flammability:** Flammable

**Upper/Lower Flammability or explosive limits:** 3.3 on 19.0

**Vapor Pressure:** 40mm @ 68°F

**Vapor Density:** 1.59

**Relative Density:** Not established

**Specific Gravity:** 0.81

**Solubility:** 100%

**Partition coefficient:** Not available

**Auto-Ignition Temperature:** Not established

**Decomposition Temperature:** Not available

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## 10) Stability and Reactivity

**Chemical Stability:** Stable at normal temperatures and pressure.

**Possibility of Hazardous Reactions:** This product does not polymerize.

**Conditions to Avoid:** Heat, flame, other sources of ignition.

**Materials to Avoid:** Strong oxidizers

**Hazardous Decomposition Products:** Carbon monoxide and Carbon dioxide.

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## 11) Toxicological Information

### Toxicity: Acute

Test	Results	Basis
NONE	NONE	NONE

### Toxicity: Chronic

Chemical Name	CAS #	Mutagen	Teratogen
Ethanol	64-17-5	Yes	Suspected
Isopropanol	67-63-0	No	Yes
Methyl Isobutyl Ketone	108-10-1	No	Yes

**Summary Comments:** **Acute:** Mildly irritating to eyes, and may be absorbed through the skin in harmful amounts. **Chronic:** May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects. Prolonged exposure may cause liver, kidney, and heart damage.

## 12) Ecological Information

### Toxicity:

Test	Results
NONE	NONE

**Persistence and Degradability:** No data

**Bioaccumulative Potential:** No data

**Mobility in Soil:** Not available

**Other Adverse Effects:** Not available

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## 13) Disposal Considerations

**Disposal Method:** Re-use or reprocess if possible. Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D002

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## 14) Transport Information

**UN Number:** UN1170

**UN Proper Shipping Name:** Ethanol solutions

**Transport Hazard Class (es):** 3

**Packing Group:** II

**Environmental Hazard(s):** N/A

**Special Precautions for User:** N/A

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## 15) Regulatory Information

### US Regulations:

**CERCLA Sections 102a/103 Hazardous substances (40 CFR 302.4):**

**Methanol:** 5000 lbs. RQ 100% active basis

**SARA Title III SARA Sections 311/312 Hazardous Categories (40 CFR 370.21): Fire Hazard**

Acute: Yes

Chronic: No

Fire: Yes

Reactive: No

Sudden Release: No

**State Regulations:**

**California Proposition 65:** This product may contain ingredient known to be listed

**California Hazardous Substance List:**

64-17-5 Ethanol

108-10-1 Methyl Isobutyl Ketone

**New Jersey Right to Know Hazardous Substance List:**

64-17-5 Ethanol

67-63-0 Isopropanol

108-10-1 Methyl Isobutyl Ketone

**Pennsylvania Right to Know: Hazardous Substance List:**

64-17-5 Ethanol

**Rhodes Island Hazardous Substance List:**

108-10-1 Methyl Isobutyl Ketone

**Canadian Regulations:**

**Controlled Products Regulations (CPR):** This product has been classified in accordance with the criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the CPR.

**WHMIS Classification:** B

**National Inventory Status: U.S. Inventory (TSCA):** All the components of this substance are listed on or exempt from the inventory.

**Canada Inventory (DSL/NDSL):** All components of this product are listed on the DSL

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## 16) Other Information

### HMIS

4	<b>FLAMMABILITY</b>
2	<b>HEALTH</b>
1	<b>REACTIVITY</b>
B	<b>Personal Protection</b>

4-Severe

3-Serious

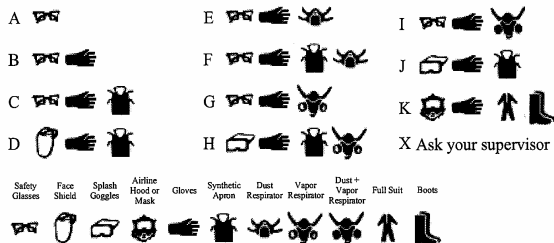
2-Moderate

1-Slight

0-Minimal

### Hazard Index

#### Personal Protective Index



**Preparer:** Ramsey Johnson

**Approved By:** Terry L. McAninch

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