

155-053

SAFETY DATA SHEET

Issuing Date 30-Jan-2017

Revision Date 30-Jan-2017

Revision Number 4

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Lock De-Icer
Stock Number 612

Recommended use of the chemical and restrictions on use

Recommended Use Lock Deicer - Aerosol
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Name Kleen-Flo Tumbler Ind. Ltd.
Address 75 Advance Blvd.
Brampton, ON
L6T 4N1
Phone Number 905-793-4311
Web www.kleenflo.com

Emergency telephone number

Company Emergency Phone Number CANUTEC: 613-996-6666

Guidelines for SDS use: The product described in this SDS is a consumer product. It is safe for use by consumers as described on the product label under normal foreseeable conditions. This SDS is designed to provide additional valuable safety and handling information.

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

| | |
|--|----------------|
| Serious eye damage/eye irritation | Category 2A |
| Specific target organ toxicity (single exposure) | Category 3 |
| Flammable Aerosols | Category 1 |
| Gases under pressure | Compressed gas |

GHS Label elements, including precautionary statements

| | |
|-------------|--------|
| Signal word | Danger |
|-------------|--------|

Emergency Overview

Hazard Statements

Causes serious eye irritation
May cause drowsiness or dizziness
Extremely flammable aerosol
Contains gas under pressure; may explode if heated

**Appearance** Clear**Physical state** Liquid spray Aerosol**Odor** Alcohol**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Pressurized container: Do not pierce or burn, even after use
Do not spray on an open flame or other ignition source
Wear eye/face protection

Precautionary Statements - Response**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
Protect from sunlight

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

7.5 % of the mixture consists of ingredient(s) of unknown toxicity

Other information

May be harmful if swallowed

May be harmful in contact with skin
 PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | CAS No | Weight-% | Trade Secret |
|-------------------|----------|----------|--------------|
| Isopropyl alcohol | 67-63-0 | 80 - 100 | * |
| Carbon Dioxide | 124-38-9 | 5 - 10 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice

Show this safety data sheet to the doctor in attendance.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact

Wash with soap and water.

Inhalation

Remove to fresh air.

Ingestion

Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider

Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects

Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam. Dry chemical, CO₂, alcohol-resistant foam or water spray.

Unsuitable extinguishing media

DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

Specific hazards arising from the chemical

Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated. Ruptured cylinders may rocket.

Uniform Fire Code

Irritant: Liquid
Aerosols: Level III

Explosion Data

Sensitivity to Mechanical Impact Yes.

Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. See section 8 for more information. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Contents under pressure. Do not puncture or incinerate cans.

Other Information

Refer to protective measures listed in Sections 7 and 8. Ventilate the area.

Environmental precautions

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways.

Methods for cleaning up

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Keep away from open flames, hot surfaces and sources of ignition. Contents under pressure. Do not puncture or incinerate cans. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Use personal protection equipment. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use spark-proof tools and explosion-proof equipment. Use only with adequate ventilation and in closed systems. Keep in an area equipped with sprinklers. In case of rupture. Avoid contact with skin and eyes.

Conditions for safe storage, including any incompatibilities

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

Incompatible Products

Strong oxidizing agents. Acids. Chlorinated compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|------------------------------|-----------------------------------|--|---|
| Isopropyl alcohol 67-63-0 | STEL: 400 ppm TWA: 200 ppm | TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³ | IDLH: 2000 ppm 10% LEL TWA: 980 mg/m ³ TWA: 400 ppm STEL: 500 ppm STEL: 1225 mg/m ³ |
| Carbon Dioxide 124-38-9 | STEL = 30000 ppm TWA: 5000 ppm | TWA: 5000 ppm TWA: 9000 mg/m ³ (vacated) TWA: 10000 ppm (vacated) TWA: 18000 mg/m ³ (vacated) STEL: 30000 ppm (vacated) STEL: 54000 mg/m ³ | IDLH: 40000 ppm TWA: 5000 ppm TWA: 9000 mg/m ³ STEL: 30000 ppm STEL: 54000 mg/m ³ |

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls

Engineering Measures Showers
 Eyewash stations
 Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves. Antistatic boots.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

| | | | |
|-----------------------|--------------------------|-----------------------|-------------------|
| Physical state | Liquid spray, Aerosol | | |
| Appearance | Clear | Odor | Alcohol |
| Color | No information available | Odor Threshold | No data available |

| <u>Property</u> | <u>Values</u> | <u>Remarks</u> | <u>Method</u> |
|--|--------------------|----------------|---------------|
| pH | UNKNOWN | | |
| Melting / freezing point | No data available | None known | |
| Boiling point / boiling range | No data available | None known | |
| Flash Point | No data available | None known | |
| Evaporation Rate | No data available | None known | |
| Flammability (solid, gas) | No data available | None known | |
| Flammability Limit in Air | | | |
| Upper flammability limit | No data available | | |
| Lower flammability limit | No data available | | |
| Vapor pressure | No data available | None known | |
| Vapor density | No data available | None known | |
| Specific Gravity | 0.79 | | |
| Water Solubility | Completely soluble | | |
| Solubility in other solvents | No data available | None known | |
| Partition coefficient: n-octanol/water | Not Established | | |
| Autoignition temperature | No data available | None known | |
| Decomposition temperature | No data available | None known | |
| Kinematic viscosity | No data available | None known | |
| Dynamic viscosity | No data available | None known | |
| Explosive properties | No data available | | |
| Oxidizing properties | No data available | | |

Other Information

Softening Point No data available
 VOC Content (%) No data available
 Particle Size No data available
 Particle Size Distribution

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks. Excessive heat.

Incompatible materials

Strong oxidizing agents. Acids. Chlorinated compounds.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------------------|----------------------|-------------------------|---------------------------------------|
| Isopropyl alcohol 67-63-0 | = 1870 mg/kg (Rat) | = 4059 mg/kg (Rabbit) | = 72600 mg/m ³ (Rat) 4 h |

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|------------------------------|-------|---------|-----|------|
| Isopropyl alcohol 67-63-0 | | Group 3 | | X |

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.

STOT - single exposure Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). If this product is a mixture, the classification is not based on toxicology studies for this product, but is based solely on toxicology studies for ingredients found within this product. Detailed substance and/or ingredient information may be provided in other sections of this SDS. Target organs effects listed in this document may result from a single overexposure to this product. Central nervous system (CNS).

STOT - repeated exposure No information available.

Chronic Toxicity No known effect based on information supplied.

Target Organ Effects Eyes. Central Vascular System (CVS). Respiratory system. Skin. Blood. Liver. Spleen. Systemic Toxicity. Cardiovascular system. Kidney.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

- ATEmix (oral)
2,022.00 mg/kg
- ATEmix (dermal)
4,389.00 mg/kg (ATE)
- ATEmix (inhalation-dust/mist)
78.50 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

| Chemical name | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|------------------------------|--|--|----------------------------|----------------------------|
| Isopropyl alcohol 67-63-0 | 96h EC50: > 1000 mg/L (Desmodesmus subspicatus) 72h EC50: > 1000 mg/L (Desmodesmus subspicatus) | 96h LC50: > 1400000 µg/L (Lepomis macrochirus) 96h LC50: = 11130 mg/L (Pimephales promelas) 96h LC50: = 9640 mg/L (Pimephales promelas) | | 48h EC50: = 13299 mg/L |

Persistence and Degradability

No information available.

Bioaccumulation

| Chemical name | Log Pow |
|------------------------------|---------|
| Isopropyl alcohol 67-63-0 | 0.05 |

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Should not be released into the environment. Dispose of contents/containers in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated Packaging Dispose of contents/containers in accordance with local regulations.

US EPA Waste Number D001

California Hazardous Waste Codes 331

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical name | California Hazardous Waste |
|------------------------------|----------------------------|
| Isopropyl alcohol 67-63-0 | Toxic Ignitable |

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name CONSUMER COMMODITY
Hazard Class ORM-D
Description CONSUMER COMMODITY, ORM-D

TDG

| | |
|-----------------------------|-----------------------|
| UN-No. | UN1950 |
| Proper Shipping Name | AEROSOLS |
| Hazard Class | 2.1 |
| Description | UN1950, AEROSOLS, 2.1 |

This product is exempted under TDG section 1.17 as limited quantity and can be shipped as limited quantity.

MEX

| | |
|-----------------------------|-----------------------|
| UN-No. | UN1950 |
| Proper Shipping Name | AEROSOLS |
| Hazard Class | 2.1 |
| Description | UN1950, AEROSOLS, 2.1 |

ICAO

| | |
|-----------------------------|-------------------------------|
| UN-No. | ID8000 |
| Proper Shipping Name | CONSUMER COMMODITY |
| Hazard Class | 9 |
| Description | ID8000, CONSUMER COMMODITY, 9 |

IATA

| | |
|-----------------------------|-------------------------------|
| UN-No. | ID8000 |
| Proper Shipping Name | CONSUMER COMMODITY |
| Hazard Class | 9 |
| ERG Code | 9L |
| Description | ID8000, CONSUMER COMMODITY, 9 |

IMDG/IMO

| | |
|-----------------------------|-----------------------|
| UN-No. | UN1950 |
| Proper Shipping Name | AEROSOLS |
| Hazard Class | 2.1 |
| EmS-No. | F-D, S-U |
| Description | UN1950, AEROSOLS, 2.1 |

RID

| | |
|-----------------------------|-----------------------|
| UN-No. | UN1950 |
| Proper Shipping Name | AEROSOLS |
| Hazard Class | 2.1 |
| Classification code | 5F |
| Description | UN1950, AEROSOLS, 2.1 |

ADR

| | |
|--------------------------------|----------------------------|
| UN-No. | UN1950 |
| Proper Shipping Name | AEROSOLS |
| Hazard Class | 2.1 |
| Classification code | 5F |
| Tunnel restriction code | (D) |
| Description | UN1950, AEROSOLS, 2.1, (D) |

ADN

| | |
|-----------------------------|-----------------------|
| UN-No. | UN1950 |
| Proper Shipping Name | AEROSOLS |
| Hazard Class | 2.1 |
| Classification code | 5F |
| Special Provisions | 190, 327, 344, 625 |
| Description | UN1950, AEROSOLS, 2.1 |
| Hazard Labels | 2.1 |
| Limited Quantity | 1 L |

Ventilation VE01, VE04

15. REGULATORY INFORMATION

International Inventories

TSCA Not determined
 DSL Not determined
 IECSC

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|-----------------------------|---------|----------|-------------------------------|
| Isopropyl alcohol - 67-63-0 | 67-63-0 | 60 - 100 | 1.0 |

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
 Chronic Health Hazard No
 Fire Hazard Yes
 Sudden release of pressure hazard Yes
 Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|--|------------|---------------|--------------|--------------|----------|
| Isopropyl alcohol 67-63-0 | X | X | X | X | |
| Carbon Dioxide 124-38-9 | X | X | X | | |
| Stoddard solvent 8052-41-3 | X | X | X | | |
| Petroleum distillates, hydrotreated light naphthenic 64742-53-6 | | X | | | X |
| Benzenesulfonic acid, di-C10-18-alkyl derivatives, barium salts | X | | X | X | |

| | | | | |
|------------|--|--|--|--|
| 93820-55-4 | | | | |
|------------|--|--|--|--|

International Regulations

**Mexico
National occupational exposure limits**

| Chemical name | Carcinogen Status | Exposure Limits |
|-------------------|-------------------|--|
| Isopropyl alcohol | | Mexico: TWA 400 ppm Mexico: TWA 980 mg/m ³ Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m ³ |
| Carbon Dioxide | | Mexico: TWA= 5000 ppm Mexico: TWA= 9000 mg/m ³ Mexico: STEL= 15000 ppm Mexico: STEL= 27000 mg/m ³ |

Mexico - Occupational Exposure Limits - Carcinogens

Canada
WHMIS Hazard Class
Not determined

16. OTHER INFORMATION

| | | | | |
|-------------|-------------------------|-----------------------|--------------------------|--|
| NFPA | Health Hazards 2 | Flammability 4 | Instability 0 | Physical and Chemical Hazards - |
| HMIS | Health Hazards 2 | Flammability 4 | Physical Hazard 0 | Personal Protection X |

| | |
|----------------------|-----------------------------|
| Prepared By | Kleen-Flo Tumbler Ind. Ltd. |
| Issuing Date | 30-Jan-2017 |
| Revision Date | 30-Jan-2017 |
| Revision Note | No information available |

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

End of Safety Data Sheet