

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product:	MZ-1, MZ-1H, MZC-1	Trade Name:	Lock-De-icer
Manufacturer:	AGS Company	Common Name:	Lock De-icer
Street Address:	2651 Hoyt St		
City/ State/ Zip	Muskegon Hts., MI 49444		
Phone:	800-253-0403		
Phone:	231-733-2101		
FAX:	231-733-1784	Original Issue Date:	11/14/1985
Transportation Emergency:	CHEM-TEL	Revision No	7
Phone:	800-255-3924	Date	12/10/2012

SECTION 2 - COMPOSITION/ INFORMATION ON INGREDIENTS

ITEM	CAS NUMBER	WT/WT %
1 Isopropanol	67-63-0	60-100

EXPOSURE LIMITS

ITEM	ACGIH	OSHA		
	TLV-TWA	TLV-STEL	PEL-TWA	PEL-CEILING
1	200 ppm	400 ppm	400 ppm	500 ppm

(See Section 16 for abbreviation legend)

SECTION 3 - HAZARDS IDENTIFICATION

EYE CONTACT: Liquid and vapors may be irritating and can cause pain, tearing, reddening and swelling.

SKIN CONTACT: Prolonged or repeated contact may result in defatting/drying of skin. In some instances may lead to contact allergic dermatitis.

INHALATION: Prolonged inhalation may cause headaches, dizziness, CNS depression and nausea.

INGESTION: This material is harmful or fatal if swallowed. Cause CNS depressing leading to coma and death.

CHRONIC HAZARDS: Overexposure may cause nervous system, pulmonary and kidney damage.

Primary Route(s) of Entry Ingestion, inhalation or skin and eye contact.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN CONTACT: Immediately flush with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately before reuse.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

INGESTION: Get medical attention immediately. If swallowed, DO NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT:	53°F	12°C	LOWER EXPLOSIVE LIMIT:	2.5 %
Closed cup			UPPER EXPLOSIVE LIMIT:	12 %

AUTOIGNITION TEMPERATURE: 750°F

EXTINGUISHING MEDIA: Do not extinguish fire unless flow can be stopped. Use water in flooding quantities as fog. . Solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water. Apply water from

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as far a distance as possible. Use "alcohol" foam, dry chemical or carbon dioxide

UNUSUAL FIRE AND EXPLOSION HAZARDS: Fire will produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Runoff from fire control or dilution water may cause pollution. Flame may be invisible. Approach fire with caution, vapor is heavier than air and may flashback along vapor trail may occur.

SPECIAL FIREFIGHTING PROCEDURES: Wear NIOSH/MSHA approved self-contained breathing apparatus and protective gear. Water spray may be utilized to cool containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

RECOVERY PROCEDURES: Absorb spill with inert material then place in a chemical waste container. Large spills, remove all non-essential personnel, call HAZMAT and eliminate ignition sources if conditions allow. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Wash thoroughly after handling

STORAGE: Keep away from heat, sparks, and flame.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use in well ventilated area. Local exhaust could be utilized to remove fumes.

RESPIRATORY PROTECTION: For most conditions, no respiratory protection should be needed, however, if high vapor concentration should develop, use a NIOSH approved organic vapor respirator.

SKIN PROTECTION: Where contact is likely, wear chemical resistant gloves.

EYE PROTECTION: Wear safety glasses with side shields or goggles.

OTHER PROTECTIVE EQUIPMENT: Eye wash in work area.

HYGIENIC PRACTICES: Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Avoid prolonged or repeated contact with eyes, skin, and clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE	180.5°F	VAPOR DENSITY:	2.1
ODOR	Solvent, sweet	ODOR THRESHOLD	90 mg/m ³
APPEARANCE	Clear, water white	EVAPORATION RATE	1.7 (n-Butyl Acetate= 1)
SOLUBILITY IN H ₂ O	Negligible		
FREEZE POINT	-129°F	SPECIFIC GRAVITY	0.785
VAPOR PRESSURE	45.5 mmHg @ 77°F	pH @ 0.0%	N.A.
PHYSICAL STATE	Liquid	VISCOSITY:	2.1 cP @ 77°F
COEFFICIENT OF WATER / OIL DISTRIBUTION:	0.14		
(See Section 16 for abbreviation legend)			

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Sources of ignition.

INCOMPATIBILITY: Ignites on contact with dioxygenyl tetrafluoroborate; chromium trioxide; potassium tert-butoxide.

HAZARDOUS DECOMPOSITION PRODUCTS When heated to decomposition it emits acrid smoke and fumes.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions

STABILITY: This product is stable under normal storage conditions.

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SECTION 11 - TOXICOLOGICAL PROPERTIES

PRODUCT LD-50 5 g/kg/rat PRODUCT LC-50 N.D.
Minimum Lethal Dose: 240 ml/adult/70kg

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: LD50 Carassius auratus (goldfish) > 5000 mg/l/24 hr modified ASTM D 1345 bioassay.
LC50 Pimephales promelas (fathead minnows) 11,130 mg/l/48 hr, 72 hr, 96 hr, C)
respectively (static bioassay in Lake Superior water at 18-22 deg.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in accordance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME Consumer Commodity
DOT TECHNICAL NAME Isopropanol
DOT HAZARD CLASS 3 HAZARD SUBCLASS: 3
UN / NA NUMBER: UN 1219 PACKING GROUP: II RESP. GUIDE PAGE N.D.

SECTION 15 - REGULATORY INFORMATION

U.S FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 cfr 1910.1200)

CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD FIRE HAZARD

SARA SECTION 313

This product contains the following substance subject to the reporting requirements of Section 313 of Title of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	WT /WT % IS LESS THAN
No SARA Section 313 components exist in this product.		%

TOXIC SUBSTANCE CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12 (B) if exported from the United States:

CHEMICAL NAME	CAS NUMBER
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U.S. STATE REGULATIONS: AS FOLLOWS -

NEW JERSEY RIGHT-TO-KNOW:

The following materials are non-hazardous, but are among the top five components in this product:

CHEMICAL NAME	CAS NUMBER
No non-hazardous materials in product.	

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PENNSYLVANIA RIGHT-TO-Know

The following non-hazardous ingredients are present in the product at greater than 3%:

CHEMICAL NAME

CAS NUMBER

No non-hazardous materials in product.

CALIFORNIA PROPOSITION 65:

WARNING: The chemical(s) noted below and contained in this product, are know to the state of California to causes cancer, birth defects or other reproductive harm.

CHEMICAL NAME

CAS NUMBER

No Propsition 65 chemicals exist in this product.

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS:

Class B Division 3: Combustible Liquid

Class D Division 2 Subdivision B: Toxic Material

WHMIS LABEL:

Packaged under Consumer Chemicals and Container Regulations.

SECTION 16 - OTHER INFORMATION

HMIS RATINGS:	Health	1	Flammability	3	Phys. Haz.	0	PPE	A
NFPA	Health	1	Flammability	3	Reactivity	0		

VOLATILE ORGANIC COMPOUNDS (VOCs): 6.55 lbs / gal 785 grams / liter

LEGEND: N.A. Not Applicable N.E. Not Established
N.D. Not Determined

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