



MATERIAL SAFETY DATA SHEET

Section I - Identification

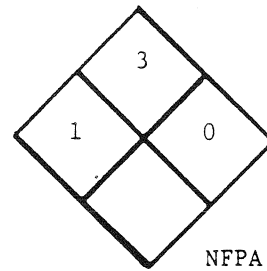
Manufacturer AGS Company(American Grease Stick Co.)

2651 Hoyt St. Phone: 800-253-0403

Muskegon Hts., MI 49444

Trade Name MR. ZIP LOCK-DE-ICER (Cat. No. MZ-1)

Common Name Isopropyl alcohol Chemical Family Alcohol



NFPA

Section II - Hazardous Ingredients

Hazardous Ingredient	CAS No.	Wgt. %	TLV
1. <u>2-Propanol</u>	<u>67-63-0</u>	<u>100%</u>	<u>400 ppm (980 mg/m³)</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

Section III - Physical Data

Ph as Supplied Not Determined Boiling Point 180°F.

Ph - Diluted Not Determined % Volatiles 100

Water Solubility Completed 20°C. Vapor Press 33 mmHg @ 20°C.

Specific Grav. (H₂O=1) 0.79 @ 20/20°C. Vapor Density (Air=1) 2.07

Melt Point Not Applicable Evap. Rate (BuAc=1) 2.88

Appearance Colorless clear liquid, alcohol odor.

Original Issue Date 11/14/85

Revision No. 1 Date 06/01/88

Section IV - Fire & Explosion Data

Flash Pt. 53°F./63°F. Method T.C.C./T.O.C.

Auto Ignition Temp. Not determined.

Flammable Limits LEL 2.0% UEL 12.7% @ 200°F.

Extinguishing Media Water fog, carbon dioxide, dry chemical, alcohol type or universal-type foams.

Special Procedures Use self-contained breathing apparatus. Water fog may be used to minimize vapors.

Unusual Hazards Vapors are heavier than air and may accumulate in low areas. Alcohol may burn with a nearly invisible flame.

Section V - Reactivity Data

Unstable Conditions and Auto Reactive Stable

Incompatible Materials Avoid concentrated nitric and sulfuric acids, strong oxidizers, aldehydes, halogens, and halogen compounds.

Hazardous Decomposition Products Oxides of carbon.

Section VI - Emergency First Aid

Eyes Flush with water for at least 15 minutes. Get medical attention.

Skin Wash with soap and water. If adverse effects occur, consult a physician.

Ingestion Give two large glasses of water and induce vomiting. Get medical attention immediately.

Inhalation Remove to fresh air. Administer oxygen or artificial respiration as required. Get medical attention.

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Product - MZ. ZIP LOCK-DE-ICER (MZ-1)

Section VII - Health Effects

Eyes May cause irritation with possible corneal injury.

Skin May cause irritation. Prolonged or repeated contact may cause
defatting of skin.

Inhalation May cause irritation and impaired consciousness.

Ingestion May cause drowsiness and loss of consciousness, stomach cramps,
pain, nausea, vomiting and diarrhea.

Other Effects None currently known.

Section VIII - Ventilation and Protective Measures

Ventilation Requirements Suitable to maintain concentration below TLV.

Protective Equipment

Respiratory Self-contained breathing apparatus in high concentrations.

Eyes Goggles, safety glasses with side shields.

Gloves Butyl rubber.

Other Eye bath and safety shower in immediate work area.

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Section IX - Storage and Handling Procedures

Conditions to Avoid Avoid open ignition sources. Avoid incompatibilities.

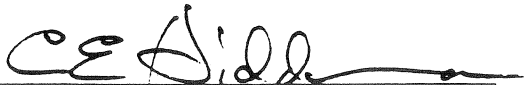
Other Precautions None.

Section X - Spill Procedures and Waste Disposal

Accidental Release or Spill Procedures Extinguish ignition sources. Collect large spills for disposal. Flush small spills with water and absorb on inert material.

Waste Disposal Method Not determined.

Special Restrictions on Waste Disposal Removal by an approved, licensed waste hauler.

Approved By 
Charles Hiddema, Vice President/
Technical Operations
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Revision No. 1 Date 06/01/88

The Information Herein Is Given In Good Faith, But No Warranty, Expressed Or Implied, Is Made.