Safety Data Sheet

Issue Date 08-Aug-2011 **Revision Date:** 09-Dec-2019 **Version** 1.0

1. IDENTIFICATION

Product Identifier

Product Name Maxim Liquid Metal Safe Dishmachine Detergent

Other Means of Identification

Product Code 323000

Recommended use of the Chemical and Restrictions on Use

Recommended Use Dishmachine Detergent Concentrate. For industrial use.

Details of the Supplier of the Safety Data Sheet

Midlab, Inc.
140 Private Brand Way
Athens, TN 37303

Emergency Telephone Number

Company Phone Number Phone: 1-423-337-3180

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Colorless **Physical State** Liquid **Odor** Characteristic

Classification

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

Signal Word
Danger

Hazard Statements
Causes severe skin burns and eye damage.

Precautionary Statements - Prevention
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Rinse mouth. Do not induce vomiting

Precautionary Statements - Storage
Store locked up.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

Hazards Not Otherwise Classified (HNOC)
May be harmful if swallowed.

Other Hazards
Toxic to aquatic life with long lasting effects.
Toxic to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Water	7732-18-5	30-60
Potassium Hydroxide	1310-58-3	10-30
Tetrapotassium Pyrophosphate	7320-34-5	10-30
Sodium Silicate	1344-09-8	10-30
Sodium Hypochlorite	7681-52-9	1-5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret

4. FIRST-AID MEASURES

First Aid Measures

General Advice Immediately call a POISON CENTER or doctor/physician.

Eye Contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Contact lenses should be discarded.

Skin Contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately.

Ingestion IF SWALLOWED: call a poison control center or physician immediately. Never give anything by mouth to an unconscious person. Rinse mouth. Drink plenty of water. Do not induce vomiting.

Most Important Symptoms and Effects

Symptoms Causes severe skin burns and eye damage.

Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician May aggravate pre-existing skin disorders. Any lung condition may be aggravated.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray (fog). Carbon dioxide (CO2). Dry chemical. Foam.

Unsuitable Extinguishing Media
Not determined.

Specific Hazards Arising from the Chemical
Product is not flammable.

Hazardous Combustion Products
Normal products of combustion.

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 Use personal protection recommended in Section 8.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13, Disposal Considerations, for additional information.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so. For large spills, dike far ahead of liquid spill for later disposal.

Methods for Clean-Up Contain and collect with an inert absorbent and place into an appropriate container for disposal. Dilute remaining residue with water and neutralize with dilute acetic acid (vinegar).

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Use personal protection recommended in Section 8. Wash face, hands, and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. For Industrial or professional use only.

Conditions for Safe Storage, including any Incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep from freezing. Protect from excessive heat. Keep out of the reach of children.

Incompatible Materials Acids. Oxidizing agents. Iron. Rust. copper. Cobalt. Nickel. Nitrogen compounds. Urea. Organic materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium Hydroxide 1310-58-3	Ceiling: 2 mg/m^3	(vacated) Ceiling: 2 mg/m^3	Ceiling: 2 mg/m^3

Appropriate Engineering Controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

Individual Protection Measures, such as Personal Protective equipment

Eye/Face Protection Wear goggles or chemical safety glasses. For Industrial or professional use only.

Skin and Body Protection Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure.

Respiratory Protection No respiratory protection is necessary during normal use conditions. In the case of insufficient ventilation or if exposure limits are exceeded, use a suitable NIOSH/MSHA respiratory device.

General Hygiene Considerations Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Liquid		
Appearance	Clear	**Odor**	Characteristic
Color	Colorless	**Odor Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	13.5-14.0	
Melting Point/Freezing Point	~ 0 °C / 32 °F	
Boiling Point/Boiling Range	~ 100 °C / 212 °F	
Flash Point	None	Tag Closed Cup
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-not applicable	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.39	
Water Solubility	Completely soluble	@ 25 °C (77 °F)
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	None known	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.

Conditions to Avoid
Elevated temperatures. Keep from freezing. Reacts with incompatible materials.

Incompatible Materials
Acids. Oxidizing agents. Iron. Rust. copper. Cobalt. Nickel. Nitrogen compounds. Urea. Organic materials.

Hazardous Decomposition Products
Oxygen when exposed to copper, nickel, cobalt, iron or iron compounds. Chlorine gas when exposed to acid.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation Avoid breathing vapors or mists.

Ingestion May be harmful if swallowed. Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Potassium Hydroxide 1310-58-3	= 214 mg/kg (Rat)	-	-
Tetrapotassium Pyrophosphate 7320-34-5	-	> 4640 mg/kg (Rabbit)	-
Sodium Silicate 1344-09-8	= 1153 mg/kg (Rat)	> 4640 mg/kg (Rabbit)	-
Sodium Hypochlorite 7681-52-9	= 8200 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	-

Information on Physical, Chemical and Toxicological Effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium Hypochlorite 7681-52-9		Group 3		

IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"

Chronic Toxicity Chronic exposure may cause liver, kidney and/or blood disorders.

Numerical Measures of Toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxic to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Potassium Hydroxide 1310-58-3	-	80: 96 h Gambusia affinis mg/L LC50 static	-	-
Tetrapotassium Pyrophosphate 7320-34-5	-	100: 96 h Oncorhynchus mykiss mg/L LC50	-	100: 48 h water flea mg/L EC50
Sodium Silicate 1344-09-8	-	301 - 478: 96 h Lepomis macrochirus mg/L LC50 3185: 96 h Brachydanio rerio mg/L LC50 semi-static	-	216: 96 h Daphnia magna mg/L EC50

Sodium Hypochlorite 7681-52-9	0.095: 24 h Skeletonema costatum mg/L EC50	0.06 - 0.11: 96 h Pimephales promelas mg/L LC50 flow-through 4.5 - 7.6: 96 h Pimephales promelas mg/L LC50 static 0.4 - 0.8: 96 h Lepomis macrochirus mg/L LC50 static 0.28 - 1: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.05 - 0.771: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.03 - 0.19: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.18 - 0.22: 96 h Oncorhynchus mykiss mg/L LC50 static	-	2.1: 96 h Daphnia magna mg/L EC50 0.033 - 0.044: 48 h Daphnia magna mg/L EC50 Static

Persistence/Degradability
Not determined

Bioaccumulation
Not determined

Mobility

Chemical Name	Partition Coefficient
Potassium Hydroxide 1310-58-3	0.83

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Potassium Hydroxide 1310-58-3	Toxic Corrosive

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN3266, Corrosive Liquid, Basic, Inorganic, NOS (Containing Potassium Hydroxide), 8, PG II

IATA

IMDG

15. REGULATORY INFORMATION

International Inventories

TSCA Listed

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing and Evaluated Chemical Substances*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Potassium Hydroxide 1310-58-3	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Sodium Hypochlorite 7681-52-9	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Reactive Hazard	Yes

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Potassium Hydroxide 1310-58-3	1000 lb			X
Sodium Hypochlorite 7681-52-9	100 lb			X

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	State List
Potassium Hydroxide 1310-58-3	MA, NJ, PA
Sodium Hypochlorite 7681-52-9	MA, NJ, PA

AZ – Arizona Ambient Air Quality Guidelines
CT – Connecticut Hazardous Air Pollutants
CA – California Director's List of Hazardous Substances
CAP65 – California Prop 65
FL – Florida Substances List
ID – Idaho Non-Carcinogen Toxic Air Pollutants
IL – Illinois Toxic Air Contaminate- Carcinogenic
MA – Massachusetts Right to Know List
MN – Minnesota Hazardous Substances List
NJ – New Jersey Right to Know List
PA – Pennsylvania Right to Know List
RI – Rhode Island Hazardous Substances List

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	Not determined	Not determined	Not determined	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	3	0	1	Not determined

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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.

Keep Out of Reach of Children. For Industrial and Institutional Use Only.

*Denotes changes from last version.

End of Safety Data Sheet