



GREASOMATIC® 96

Safety Data Sheet

Issue Date 07-Jan-2009

Revision Date: 30-Oct-2013

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Greasomatic ®96

Other means of identification

SDS # PLI-001

Recommended use of the chemical and restrictions on use

Recommended Use Automatic lubricator.

Details of the supplier of the safety data sheet

Supplier Address

Power Lube Industrial, LLC
4930 S. 2nd St. Ste 300
Milwaukee, WI 53207

Emergency Telephone Number

Company Phone Number 1-800-635-8170
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: In the normal course of use of a GREASOMATIC 96 , no hazard will arise because the reactive agents remain sealed inside it. The GREASOMATIC is of robust, tamper-resistant construction and users are warned not to make any attempt to force open the casing, whether the unit is inactivated, working or spent. However, should a GREASOMATIC become fractured as a result of severe accidental damage or deliberate interference, small amounts of the following preparations or substances may escape:

Inactivated Greasomatic: up to 47 g of liquid electrolyte and up to 125 g of lubricant
Working or Spent Greasomatic: up to 47 g of liquid electrolyte and up to 0.02 g of hydrogen gas and up to 125 g of lubricant
Such an escape will give rise to the following potential hazards (assessment of which should take into account the very small quantities of the substances involved and the unlikelihood of prolonged exposure to them).

Appearance Colorless liquid

Physical State Liquid

Classification

This product is an "article" and a Safety Data Sheet is not required under 29 CFR 1910.1200; however, for the benefit of users, the following safety information is provided in a similar layout to that laid down for Safety Data Sheets.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Nature

A GREASOMATIC 96 is an automatic lubricator that is designed to screw into a grease nipple socket or other lubrication point and discharge its content of 120 mL of grease or oil in a controlled continuous flow for a user-selected period of up to 12 months. Built into the top of the GREASOMATIC 96 is a flexible rubber expansion chamber containing a small amount of a mildly acidic electrolyte (a dilute solution of citric acid and glycine in water) and an adjustable molybdenum: zinc galvanic element. By manipulation of the control knob on the top of the unit, the user can adjust the configuration of the galvanic element to give the desired discharge duration and then inject the galvanic element into the electrolyte. The resultant electro-chemical reaction generates a small but steadily increasing amount of hydrogen gas which gradually expands against a piston to inject the lubricant into the bearing to which the GREASOMATIC is fitted. The chemicals and the gas remain hermetically sealed within the expansion chamber so that none can contaminate the lubricant. Only if the casing of the GREASOMATIC is fractured by severe mechanical damage can the gas or chemicals escape. In the event of a complete blockage of the bearing's lubricant channel, the internal pressure in the GREASOMATIC will build up until the pressure relief valve in the base operates to release lubricant (but no gas or electrolyte), thus relieving the pressure and warning that no lubrication is taking place.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	In case of contact with electrolyte, irrigate eye with copious amounts of water. If eye irritation persists: Get medical advice/attention.
Skin Contact	In case of contact with electrolyte, wash with soap and water.
Inhalation	Remove to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects

Symptoms	May cause skin and eye irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂). Dry powder. Foam. Sand/earth.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

A Greasomatic and its contents are not readily combustible but will burn if ignited in the course of some larger conflagration. Hydrogen is lighter than air and highly flammable. However, the risk of fire or explosion from the maximum of 0.02 g of the gas which is sealed within a working or used GREASOMATIC 96 is not considered to constitute a serious hazard or health risk.

Hazardous Combustion Products Carbon oxides. Nitrogen oxides (NO_x). Zinc oxide. Molybdenum oxide. Thermal decomposition products of the plastic components.

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 protective equipment as required.

Environmental Precautions 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.

Methods for Clean-Up Electrolyte spillage: Soak up with absorbent material and dispose of via a licensed waste disposal site.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Keep away from heat.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store at 0 - 40°C in dry conditions.

Incompatible Materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Do not attempt to force open the casing of a GREASOMATIC, whether inactivated, working or spent. If handling an accidentally fractured GREASOMATIC, keep it away from naked flames and avoid eye or skin contact with electrolyte

Appropriate engineering controls

Engineering Controls None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Avoid contact with eyes.

Skin and Body Protection Wear suitable protective clothing.

Respiratory Protection Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Not determined
Appearance	Colorless liquid	Odor Threshold	Not determined
Color	Colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.5 (electrolyte)	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapour Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.18 (electrolyte)	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
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.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

Carbon oxides. Nitrogen oxides (NOx). Zinc oxide. Molybdenum oxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Under normal conditions of intended use, this material does not pose a risk to health
Eye Contact	Avoid contact with eyes.
Skin Contact	Not expected to be a skin irritant during prescribed use.
Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Ingestion	Do not taste or swallow.

Information on physical, chemical and toxicological effects

Symptoms	Please see section 4 of this SDS for symptoms.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity	Carcinogenic potential is unknown.
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Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

No data is available on finished product.

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	A spent GREASOMATIC 96 should be considered as general industrial waste and disposed of via a licensed waste disposal site, preferably a landfill. Due to its sealed construction and variety of components, it is not suitable for recycling. A spent Greasomatic is typically composed of: 124g of mixed rubber and plastic components; 47g of citric acid, citrates and glycine in water; 0.02 g of H ₂ ; <1g of Zn; 200mg of Mo; 50mg of BeCu; 10 mg of Sn; <1mg of Hg; a variable amount of lubricant.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT Not regulated
IATA Not regulated
IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories
 Not determined

US Federal Regulations

SARA 313
 Not determined

US State Regulations

U.S. State Right-to-Know Regulations
 Not determined

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards Not determined	Flammability Not determined	Instability Not determined	Special Hazards Not determined
<u>HMIS</u>	Health Hazards Not determined	Flammability Not determined	Physical Hazards Not determined	Personal Protection 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.

End of Safety Data Sheet