



SAFETY DATA SHEET

AM-225

Issue Date: 01 Jan 2016

Revision Date: N/A

PRODUCT IDENTIFICATION

Company Product Name: AM-225

Other/Generic Names: Glycerine Solution, Glycerin 99.7% Refined

Product Use and Restrictions on Use For Reverse Osmosis Membrane Preservation and lubricating seals

Supplier: Applied Membranes, Inc.
2450 Business Park Dr
Vista, CA 92081

For More Information Call: (760) 727-3711
(Monday-Friday, 8:00am-5:00pm)

For Emergency Call: For Chemical Emergency, Spill Leak Fire Exposure or Accident - Call CHEMTREC Day or Night DOMESTIC NORTH AMERICA 800-424-9300 INTERNATIONAL, CALL 703-527-3887 (collect calls accepted)

HAZARDS IDENTIFICATION

GHS Classification

- Serious eye damage / eye irritation - Category 2A

Label Element

- Causes skin and eye irritation.
- May cause irritation to the respiratory system.
- Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
- 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.
- Store in a closed container.
- Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

COMPOSITION/INFORMATION ON INGREDIENT

| <u>Ingredient Name</u> | <u>CAS Number</u> | <u>Weight %</u> |
|------------------------|-------------------|-----------------|
| AM-225 | 56-81-5 | 48-100% |

The components are not hazardous or are below required disclosure limits.



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FIRST AID MEASURES

| | |
|--|---|
| SKIN: | Immediately wash skin with plenty water for at least 15 minutes while removing contaminated clothing and shoes. |
| EYES: | If in eyes, hold eyes open, Flush eyes immediately with water for at least 15 minutes and see a doctor. |
| INHALATION: | Move to fresh air. If breathing is difficult, give oxygen. Perform artificial respiration if breathing has stopped. |
| INGESTION: | Never give liquid to an unconscious person. |
| MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED: | No data available. |
| INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: | No data available. |

FIRE FIGHTING MEASURES

Suitable (and unsuitable) Extinguishing Media: Use extinguishing media appropriate for material in surrounding fire.

Specific Hazards arising from the chemical: No data available.

Special Protective Equipment and Precautions for Firefighting: No data available.

ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: No data available.

Methods and Materials for Containment and Cleaning up: Absorb spillage with non-combustible, absorbent material. Dike for later disposal.

HANDLING AND STORAGE

Precautions for Safe Handling: Container must be kept tightly closed. Store away from incompatible materials.

Conditions for Safe Storage, including any Incompatibilities: No data available.



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EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES

| <u>Chemical Identity</u> | <u>Type</u> | <u>Exposure Limit values</u> | <u>Source</u> |
|--|-------------|------------------------------|---|
| AM-225 – Total dust | PEL | 15 mg/m ³ | US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| AM-225 – Respirable fraction | PEL | 5 mg/m ³ | US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| AM-225 – Total dust | TWA | 10 mg/m ³ | US OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| AM-225 – Respirable fraction | TWA | 5 mg/m ³ | US OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| AM-225 –Respirable fraction and dust or fume | TWA | 5 mg/m ³ | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| AM-225 – Total dust | TWA | 10 mg/m ³ | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| AM-225 – Vapor | ST ESL | 1,000 µg/m ³ | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013) |
| AM-225 – Particulate | ST ESL | 50 µg/m ³ | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013) |
| AM-225 – Vapor | AN ESL | 100 µg/m ³ | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013) |
| AM-225 – Particulate | AN ESL | 5 µg/m ³ | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013) |

Appropriate Engineering Controls: No data available.

Individual Protection Measures, Such as Personal Protective Equipment

GENERAL INFORMATION: No data available

SKIN/HAND PROTECTION: No data available.

EYE/FACE PROTECTION: No data available.

RESPIRATORY PROTECTION: No data available



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HYGIENE PROTECTION: No data available

PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--------------------|
| APPEARANCE: | No data available. |
| PHYSICAL STATE: | Liquid |
| ODOR: | No data available |
| ODOR THRESHOLD: | No data available |
| pH | No data available |
| INITIAL BOILING POINT/RANGE: | 290°C |
| MELTING/FREEZING POINT: | 18°C |
| VAPOR PRESSURE: | No data available |
| VAPOR DENSITY (air=1.0) | No data available |
| RELATIVE DENSITY: | No data available |
| SOLUBILITY (in water): | No data available |
| EVAPORATION RATE: | No data available |
| PARTITION COEFFICIENT (N-OCTANOL/WATER): | No data available |
| VISCOSITY: | No data available |
| FLASH POINT: | 177°C |
| AUTOIGNITION TEMPERATURE: | No data available |
| UPPER FLAME LIMIT(volume % in air): | No data available |
| LOWER FLAME LIMIT (volume % in air): | No data available |
| DECOMPOSITION TEMPERATURE: | No data available |
| FLAMMABILITY (solid, gas): | No data available |

STABILITY AND REACTIVITY

REACTIVITY: No data available.

CHEMICAL STABILITY: No data available.

POSSIBILITY OF HAZARDOUS RECTIONS: No data available.

CONDITIONS TO AVOID: No data available.

INCOMPATIBILITIES: No data available.

HAZARDOUS DECOMPOSITION PRODUCTS: No data available.



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TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH HAZARDS

ACUTE EFFECTS OF EXPOSURE

SKIN: No data available

EYES: No data available

INHALATION: No data available

INGESTION: No data available

CHRONIC EFFECTS: No data available

Ingredients found on one of the three OSHA designated carcinogen lists are listed below.

| <u>Ingredient Name</u> | <u>NTP Status</u> | <u>IARC Status</u> | <u>OSHA List</u> |
|--------------------------------------|-------------------|--------------------|------------------|
| No ingredient listed in this section | ---- | ---- | ---- |

Other Data: No data available

ECOLOGICAL INFORMATION

Ecotoxicity: The following ecotoxicity data is available for AM-225

Daphnia LC50 24h → 10,000 mg/L mortality

Fish LC50 96h → 51,000 – 57,000 mg/L mortality

Persistence and Degradability: BOD/COD ratio – No data available.

Bioaccumulative Potential: Partial coefficient n-octanol/water (log Kow) → -1.76

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

DISPOSAL CONSIDERATIONS

RCRA

Disposal Instructions: No data available.

Contaminated packaging: No data available.



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TRANSPORT INFORMATION

Not regulated for US domestic ground transportation.

REGULATORY INFORMATION

US OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): None present or none present in regulated quantities.

CERCLA Hazardous Substances List (40 CFR 302.4): None present or none present in regulated quantities.

SARA 302 Extremely hazardous substances: None present or none present in regulated quantities.

SARA 304 Emergency release notification: None present or none present in regulated quantities.

SARA 311/312 Hazardous chemical:

| <u>Chemical Identity</u> | <u>Threshold Planning Quantity</u> |
|--------------------------|------------------------------------|
| Glycerine | 500 lbs |

SARA 313 (TRI reporting): None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3) None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112 ® Accidental Release Prevention (40 CFR 68.130): None present or none present in regulated quantities.

US California Proposition 65: No ingredient regulated by CA Prop 65 present.

US New Jersey Worker and Community Right-to-Know Act:

| | |
|-----------|--------|
| Glycerine | Listed |
|-----------|--------|

US Massachusetts RTK – Substance List:

| | |
|-----------|--------|
| Glycerine | Listed |
|-----------|--------|

US Pennsylvania RTK – Hazardous Substances:

| | |
|-----------|--------|
| Glycerine | Listed |
|-----------|--------|

US Rhode Island RTK: No ingredient regulated by RI Right-to-Know Law present.



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OTHER INFORMATION

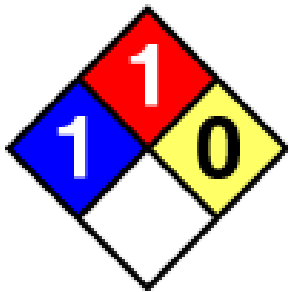
HMIS Hazard ID:

| | |
|---------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | B |

B – Safety Glasses and Gloves

Hazard rating: 0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe; *Chronic health effect

NFPA Hazard ID:



Hazard rating: 0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe

Current Issue Date: 01 Jan 2016

Previous Issue date: N/A

Changes to SDS from Previous Issue Date are Due to the following: No changes.