



Part Number: HC-100

Last Revised: September 9, 2013

Section 1 - Material Identification

Supplier: Martin Engineering
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CHEMTREC (24 HR Emergency Telephone), call: 1-800-424-9300

Medical: Rocky Mountain Poison Center: 1-303-623-5716

Trade Name: HC-100

Product Description: A clear, colorless to pale yellow liquid having a slight characteristic odor.

Product Use: Used as a dust control agent in industrial applications.

Section 2- Hazardous Ingredients

Classification: A clear, colorless to pale yellow liquid having a slight characteristic odor. The mists and liquid may cause irritation to the eyes and skin. Inhalation of mists may cause mild or moderate irritation to the entire respiratory tract. This product is not combustible per OSHA and WHMIS definition, but it can be ignited at high temperatures and will burn.

DOT Hazard Classification: Non-hazardous material

Slip Hazard: Slip hazard when spilled.

Eyes: Exposure to the mists or liquid may cause severe eye irritation. Symptoms of exposure may include tearing, redness and irritation.

Skin: Prolonged contact may cause drying or chapping or mild skin irritation. Symptoms of exposure may include redness and discomfort.

Ingestion: Ingestion may cause moderate irritation to the gastrointestinal tract, including the stomach and intestines, characterized by headache, nausea, vomiting, abdominal discomfort or pain and possibly diarrhea. This product is slightly toxic by ingestion.

Chronic: Animal tests on the Glycerin in this product, indicate possible reproductive effects and kidney damage due to the chronic ingestion of high doses. Human mutation data has also been reported. Otherwise, the chronic health effects are expected to be the same as for acute exposure.

MATERIAL SAFETY DATA SHEET

| <u>CAS #</u> | <u>Chemical</u> | <u>Composition</u> |
|--------------|---|--------------------|
| 56-81-5 | Glycerin | 25-35% |
| 7732-18-5 | Water | 56-60% |
| 9016-45-9 | Poly(oxy-1,2-ethanediyl) alpha-(nonylphenyl)-omega hydroxy-nonylphenyl ethoxylate | 3-5% |
| 34590-94-8 | Dipropylene glycol methyl | 2-4% |

Section 3 - Physical Data

| | |
|----------------------|---------------------------------|
| Melting Point: | Less than -17.8°C |
| Boiling Point: | Greater than 100°C |
| Physical State: | Liquid |
| Solubility in Water: | Soluble |
| Appearance: | Clear, colorless to pale yellow |
| Odor: | Slight characteristic |
| pH: | NA |
| Specific Gravity: | 1.133 g/ml at 20°C |
| Vapor Pressure: | NA |
| VOC Content: | Approximately 34 grams/liter |
| %Volatile: | Approximately 45% |

Section 4 – Fire-Fighting Measures

General Advice: This product is not combustible by the OSHA or WHMIS definitions, but it can be ignited and will burn. The Uniform Fire Code physical hazard classification for this material is: Combustible Liquid, Class III-B. This product may produce hazardous fumes or hazardous decomposition products. Heated containers may rupture, possibly violently, from the excessive heat in a fire.

Suitable Extinguishing Media: Water. Dry Chemical. Carbon dioxide. Use a water spray to cool the containers exposed to the heat of a fire. Do not direct a solid stream of water or foam into hot, burning pools of this product; this may cause frothing and increase the fire's intensity.

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Hazardous Combustion Products: When heated to decomposition, it emits toxic carbon monoxide and carbon dioxide, with possibly some corrosive Acrolein, plus possibly highly irritating smoke.

Specific Hazards: Do not breathe smoke, gases or vapors generated.

Special Protective Equipment for Firefighters: In the event of a fire, wear self-contained breathing apparatus and full protective equipment.

Flashpoint and Method: 100°C Pensky-Martins Closed Tester (ASTM D 93-79)

Flammable Limits: NA

Auto ignition Temperature: NA

Section 5 – First Aid Measures

General Advice: Remove material from eyes, skin and clothing. In case of doubt or when symptoms persist, seek medical attention. Wash heavily contaminated clothing before reuse.

Eye Contact: Hold eyelids apart and flush eyes with a steady, gentle stream of water for fifteen minutes. If eye irritation persists, seek medical attention.

Skin Contact: Wash off with soap and plenty of water.

Inhalation: Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

Ingestion: If swallowed, give plenty of water to drink. Call a physician. DO NOT induce vomiting unless directed to do so by a medical personnel. Never give anything by mouth to an unconscious person.

Section 6 – Stability and Reactivity Data

Stability: Material is stable and hazardous polymerization will not occur.

Materials to Avoid: Strong oxidizing agents and strong acids.

Conditions to Avoid: Avoid excessive heat and all sources of ignition.

Hazardous Decomposition Products: Thermal decomposition products are carbon monoxide and carbon dioxide and Acrolein plus possibly highly irritating smoke.

Sensitivity to Mechanical Impact: This product is not sensitive to mechanical impact.

Sensitivity to Static Discharge: This product is not sensitive to normal static discharge.

Section 7 - Spill, Leak or Accident Procedures

Land Spill: Wearing recommended protective equipment and clothing, dike the spill and pick up the bulk of liquid using pumps or a vacuum truck for potential recovery and return to the appropriate container. Absorb the remaining liquid using sand or a commercial absorbent; dispose as non-hazardous solid waste. Flush the spill area with water and collect the residues for disposal or sewer as appropriate.

Water Spill: Wear recommended protective equipment and clothing if contact with hazardous material can occur. Stop or divert water flow. Dike contaminated water and remove for disposal and or treatment. As appropriate, notify all downstream users of possible contamination.

Disposal: Laws and regulations for disposal vary widely by locality. Observe all applicable regulations and laws. This material, may be disposed of in solid waste in a manner similar to other nuisance dust materials. Disposal in sanitary landfill is usual but local regulations should be checked and observed.

Extinguishing Media: Large quantities of water. In case of a fire in close proximity, all means of extinguishing are acceptable. Self-contained breathing apparatus or approved gas mask should be worn due to small particle size. Use extinguishing media appropriate for surrounding fire. Apply cooling water to sides to transport or storage vessels that are exposed to flames until the fire is extinguished. Do not approach hot vessels that contain the product.

First Aid: After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention. Consult an ophthalmologist in all cases.

Section 8 - Special Protection or Handling

- Storage: Store in a roofed and well-ventilated area in the unopened original package at ambient temperature and pressure. Store in a cool, dry area away from incompatible materials and products.
- Protective Gloves: Vinyl or Rubber
- Eyes: Splash Goggles or Full Face Shield
Area should have approved means of washing eyes.
- Ventilation: General exhaust.
- Storage: Store in cool, dry, ventilated area.
- Protect from incompatible materials.

Section 9- Exposure Controls/Personal Protection

- Control Measures: Use a local or general, mechanical exhaust ventilation system capable of maintaining emissions, in the work area, below the ACGIH-TLV, OSHA-PEL, or levels that may cause irritation.
- Recommended Personal Protective Equipment:
- Respirator: Respiratory protection is not normally required. However, for exposures above the ACGIH-TLV or OSHA-PEL, wear a NIOSH approved full face piece or half mask air-purifying cartridge respirator equipped with a good mist/particulate cartridge or supplied air. ACGIH TLV for glycerin is 10 mg/m³ (mists) and 100 ppm (skins) for dipopylene glycol methyl. ACGIH STEL is 150 ppm for dipropylene glycol methyl. The OSHA PEL glycerin is 15 mg/m³ mist and 5 mg/m³ for reparable fraction and for dipropylene glycol methyl 100 ppm skin.
- Eyes: Wear chemical goggles (recommended by ANSI Z87.1-1979), unless a full face piece respirator is worn.
- Gloves: Wear Neoprene or Natural Rubber gloves when handling this product.
- Clothing & Equipment: If splashing or contact is likely, wear a Neoprene or Natural Rubber apron when handling this product. An eye wash station and safety shower should be available in the work area.
- Footwear: If contact is likely, wear Neoprene or Natural Rubber boots.

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Section 10- Toxicology

| <u>Components</u> | <u>Glycerin</u> | <u>Nonylphenol Ethoxylate</u> | <u>Dipropylene Glycol Methyl Ether</u> |
|--|--|--------------------------------------|---|
| Eye Contact | Rabbit: 500 mg/24H: Mild | Rabbit: 5 mg: Severe | Rabbit: 5 mg: Severe |
| Skin Contact | Rabbit: 500 mg/24H: Mild | Rabbit: 500 mg, open: Mild | Rabbit: 500 mg, open: Mild |
| Oral Rat LD50: | 12,600 mg/kg | 2,590 mg/kg | 5,680 mg/kg |
| Dermal Rabbit LD50: | Greater than 10 mg/kg | 2,830 mg/kg | NA |
| Inhalation Rat LC50: | Greater than 570 mg/m ³ /1H | NA | NA |
| Human Data | Oral Human TD Lo: 1428 mg/kg Headache, gastrointestinal effects | Skin Human: 15mg/3 Days: Mild | NA |
| Other Toxicological Data | Oral Mouse LD50: 4090 mg/kg | NA | Oral Dog LD50: 7,500 mg/kg |
| Carcinogenicity: | NA | NA | NA |
| Teratogenicity: | Oral Rat TDLo: 100 mg/kg (male 1 day prior to mating) Effects on Fertility- Post- implantation mortality | NA | NA |
| Mutagenicity: | Human DNA Inhibition; Lymphocyte: 200mmol/liter | NA | NA |
| Synergistic Products: | None reported | None reported | None Reported |
| Target Organs: | Eyes, Skin, Mucous membranes, Lungs and Kidneys | Eyes, Skin, Mucous membranes, Lungs | Eyes, Skin, Lungs, Central Nervous System |
| Medial Conditions Aggravated by Exposure | Skin, Respiratory or Kidney disorders | Skin or respiratory disorders | Skin or Respiratory disorders |

Reported Human Effects: No human toxicity studies have been carried out with this product. Due to the physical nature of this product, may cause eye, skin and respiratory irritation.

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Section 11- Ecological Information

Environmental Fate: This product is completely soluble in water and it is expected to be biodegradable in both aerobic and anaerobic conditions. This product is not expected to affect the pH of water.

Environmental Considerations: The aquatic toxicity for this product has not been determined. The aquatic toxicity for Glycerin is: Goldfish LC50 924 hours) = greater than 5,000 mg/liter (modified ASTM D 1345). Toxicity threshold (cell multiplication inhibition test): Scenedesmus quadricauda (green algae) + Greater than 10,000 mg/liter. Toxicity threshold for Entosiphon sulcatum (protozoa) = 3,200 mg/liter.

Section 12-Regulatory Information

Carcinogenic Potential:

Regulated by OSHA: No

Listed on NTP Report: No

Listed by IARC: No

IARC Group: NA

ACGIH Appendix A: Not listed

A 1 Confirmed Human: NA A 2

Confirmed Human: NA

US EPA Requirements:

Release Reporting CERCLA (40 CFR 302)

Listed Substance: Not listed

Reportable Quantity: NA

Category: NA

RCRA Waste No. NA

Unlisted Substance: NA

Reportable Quantity: NA

Characteristic: NA

RCRA Waste No: NA

SARA TITLE III

Section 302 & 303 (40 CFR 355)

Listed Substance: Not listed

Reportable Quantity: NA

Planning Threshold: NA

Section 311 & 312 (40 CFR 370)

Hazard Categories: Fire: N Sudden Release of Pressure: N Reactive: N

Acute Health: Y Chronic Health: N

Planning threshold: 10,000 pounds

Section 313 (40 CFR 372)

Listed Toxic Chemical: Not listed

Planning Threshold: NA

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US TSCA Status

Listed (40 CFR 710) : Yes

State Regulations: State of California: Safe Drinking Water and Toxins Enforcement Act. 1986 (Proposition 65)

Carcinogen: No

Reproductive Toxin: No

State Right To Know Laws: MA,PA

Section 13-Disposal Considerations

RCRA 40 CFR 261 Classification: Non-Hazardous Waste

US EPA Waste Number/Description: NA

If this product is disposed of as shipped, it does not meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of a hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D due to toxicity. As a non-hazardous liquid waste, it should be disposed of in accordance with all local, state, and federal regulations. Consult state or local officials for proper disposal method.

Section 14 - Other Information

Materials containing reactive chemicals should be used only by personnel with appropriate chemical training. This product is not formulated to contain any substances which the State of California has found to cause cancer and/or birth defects or other reproductive harm.

Martin Engineering provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using the product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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