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1 Identification

• Trade name: HVAC CHEMSM GAS LEAK DETECTOR

· Article number: GLD, GLD-08, GLD-1G, GLD-5G, GLD-DR

· MSDS Number: 00252-HV-EN

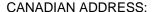
· UPC bar code(s): 699913-11145, 699913-11395, 699913-10400, 699913-10405

· Relevant identified uses of the substance: LEAK DETECTION COMPOUND

· Manufacturer/Supplier:

USA ADDRESS:

KEMPER SYSTEM AMERICA, INC. 1200 NORTH AMERICA DR, WEST SENECA, NY 14224 PH (716) 558-2971



KEMPER SYSTEM CANADA 13 -5200 DIXIE ROAD MISSISSAUGA, ON L4W 1E4 PH (905) 624-5463 FAX (905) 624-2840

· Information department:

Tel: (716) 558-2971 ext. 228 www.hvacchem.com

· Emergency telephone number:

ChemTrec (800) 424-9300

Canada only: CANUTEC (Call collect) (613) 996-6666



HVAC



2 Hazard(s) identification

· Classification of the substance or mixture:



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2B H320 Causes eye irritation.

- Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

- · Signal word: Warning
- · Hazard-determining components of labeling:

ethylene glycol

· Hazard statements:

Harmful if swallowed.

Causes eye irritation.

· Precautionary statements:

Keep out of reach of children.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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.

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Safety Data Sheet acc. to OSHA HCS

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Rinse mouth.

IF SWALLOWED: Immediately call a doctor.

IF SWALLOWED: Call Product Safety Department if you feel unwell.

IF ON SKIN: Wash with plenty of water.

Call a doctor if you feel unwell.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· WHMIS-symbols:

D2A - Very toxic material causing other toxic effects



· NFPA ratings (scale 0 - 4):



3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.
- · Dangerous components:

107-21-1 ethylene glycol

30-60%

· Additional information: Exact concentrations are being withheld as trade secrets.

4 First-aid measures

- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed:

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

5 Fire-fighting measures

- · Suitable extinguishing agents:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- · Special hazards arising from the substance or mixture: No further relevant information available.
- · Protective equipment: No special measures required.

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6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· Reference to other sections:

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling
- · Precautions for safe handling: No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · Storage
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

· Components with limit values that require monitoring at the workplace:

107-21-1 ethylene glycol

EL () Short-term value: C 100* 20** mg/m³, C 50*** ppm Long-term value: 10** mg/m³

*Aerosol; **Particulate; ***Vapour

- · Additional information: The lists that were valid during the creation were used as basis.
- · Personal protective equipment
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• Eye protection: Goggles recommended during refilling.

- CA

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9 Physical and chemical prope	rties
· Form: · Color: · Odor: · Odour threshold:	Liquid Yellow Odorless Not determined.
· pH-value at 20 °C:	7
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	-3 °C 93 °C
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	410 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits Lower: Upper:	3.2 Vol % 53.0 Vol %
· Vapor pressure at 20 °C:	23 hPa
 Density at 20 °C: Relative density: Vapour density at 20 °C: Evaporation rate at 20 °C: 	0.998 g/cm ³ Not determined610 (AIR=1) 1 (BA=1)
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/wat	ter): Not determined.
· Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
· Solvent content: Organic solvents:	0.0 %
Solids content: Other information	1.0 % No further relevant information available.

10 Stability and reactivity

- · Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- · Possibility of hazardous reactions: No dangerous reactions known.
- · Conditions to avoid: No further relevant information available.
- · Incompatible materials: No further relevant information available.

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· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects:
- · Acute toxicity

· LD/LC50 values that are relevant for classification:				
107-21-1 ethylene glycol				
Oral	LD50	5840 mg/kg (rat)		
Dermal	LD50	9530 mg/kg (rabbit)		

- · Primary irritant effect
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability: No further relevant information available.
- · Behavior in environmental systems
- · Bioaccumulative potential: No further relevant information available.
- · Mobility in soil: No further relevant information available.
- · Additional ecological information
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Other adverse effects: No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Smaller quantities can be disposed of with household waste.

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- · Uncleaned packagings
- Recommendation:

Place in a sealed container and label as waste. Place in a safe area, and comply with all federal, state, provincial and local regulations for disposal.

14 Transport information	
· UN-Number · DOT, TDG, ADN, IMDG, IATA	Not Available
UN proper shipping nameDOT, TDG, ADN, IMDG, IATA	Not Available
· Transport hazard class(es)	
· DOT, TDG, ADN, IMDG, IATA · Class	Not Available
· Packing group · DOT, TDG, IMDG, IATA	Not Available
Environmental hazards:Marine pollutant:	No
· Special precautions for user:	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.	
· UN "Model Regulation":	-

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

107-21-1 ethylene glycol

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

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· Carcinogenic categories

· EPA (Environmental Protection Agency):

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH):

107-21-1 ethylene glycol

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients is listed.

· Canadian substance listings

· Canadian Domestic Substances List (DSL):

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed.

Canadian Ingredient Disclosure list (limit 1%):

107-21-1 ethylene glycol

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS07

· Signal word Warning

· Hazard-determining components of labeling:

ethylene glycol

· Hazard statements

Harmful if swallowed.

Causes eye irritation.

· Precautionary statements

Keep out of reach of children.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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.

Rinse mouth.

IF SWALLOWED: Immediately call a doctor.

IF SWALLOWED: Call Product Safety Department if you feel unwell.

IF ON SKIN: Wash with plenty of water.

Call a doctor if you feel unwell.

Dispose of contents/container in accordance with local/regional/national/international regulations.

16 Other information

This MSDS format meets ANSI Z400.1-1998, OSHA 1910.1200 and WHMIS requirements. Kemper System America, Inc. 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 (Contd. on page 8)

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the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of Kemper System America, Inc. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made. Kemper System America, Inc is an ISO 9001:2008 registered company.

· Department issuing MSDS: Product safety department

· Contact: Stephen Nowicki

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

CA