

MasterCare™

Leak Armor™ Flex Shot™ Cartridges (Sealant)

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product Name: Leak Armor™ Flex Shot™ Cartridges (Sealant)

Catalog Number: 985M-MC

Product Class: HVAC/R Refrigerant Additive

Manufactured by: DiversiTech Corporation
3039 Premiere Parkway
Duluth, GA 30097

Information Phone #: 1.678.542.3600

EMERGENCY Phone #: 1.800.255.3924 Chem-Tel
(Chemical Emergencies)

SECTION 2. HAZARDOUS IDENTIFICATION

Hazards Classification

Flammable Liquids: Category 3

Serious Eye Damage/Irritation: Category 2A

Skin Sensitization: Category 1

Specific Target Organ Toxicity (Repeat Exposure): Category 2

Label Elements:



Signal Word: Warning

Hazard Statement(s):

Flammable liquid and vapor

Causes mild skin irritation

May cause damage to organs through repeated or prolonged exposure (bladder)

May cause an allergic skin reaction

Precautionary Statement(s):

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear protective gloves and eye protection.

Wash hands thoroughly after handling.

Do not breathe mist, vapor or spray.

Contaminated clothing should not be allowed out of the workplace.

In case of fire: Use carbon dioxide, dry chemical powder, alcohol-resistant foam or water spray to extinguish.

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 attention.

If skin irritation or rash occurs: Get medical attention.

Specific treatments: see first aid measures on this label.

Take off contaminated clothing and wash it before reuse.

Get medical attention if you feel unwell.

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

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SECTION 2. HAZARDOUS IDENTIFICATION cont.

Precautionary Statement(s): cont.

Other hazards:

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS No.	Composition, wt%
Triethylorthoformate	122-51-0	7 - 13
Trimethoxyvinylsilane	2768-02-7	1 - <3
N-(3-(trimethoxysilyl)propyl) ethylenediamine	1760-24-3	1 - <3
Trimethoxy(methyl)silane	1185-55-3	0.1 - 1

Remaining components of this product are not classified as hazardous under WHMIS 2015.

SECTION 4. FIRST AID MEASURES

Inhalation

Remove person to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen may be given by qualified personnel. Obtain medical attention.

Eye Contact

Remove contact lenses and immediately flush eyes with copious amounts of water for at least 15 minutes. Obtain medical attention.

Skin Contact

Immediately wash skin with soap and plenty of water. If irritation persists or if contact has been prolonged, obtain medical attention. Wash contaminated clothing before reuse.

Ingestion

Do NOT induce vomiting. Wash out mouth with water provided person is conscious. Call a physician.

Acute and Delayed Symptoms

This product is expected to react with moisture in the gastrointestinal tract to form methanol. Symptoms may be delayed and include headache, dizziness, nausea, lack of coordination and confusion.

Special Treatment Needed

Get medical treatment.

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SECTION 5. FIREFIGHTING MEASURES

Extinguishing media: DO NOT USE WATER.. Use carbon dioxide, dry chemical powder or appropriate foam.

Special hazards arising from the substance or mixture

Burning in a fire produces carbon oxides, silicon oxides, smoke and fumes.

Vapors may travel considerable distance to a source of ignition and flash back.

Advice for firefighters

Self-contained breathing apparatus and protective clothing as required.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Provide adequate ventilation. Wear chemical-resistant gloves and chemical safety goggles or safety glasses with side shields.

Environmental Precautions

Shut off all sources of ignition. Provide adequate ventilation. Avoid runoff to sewers and waterways.

Methods and Material for Containment and Clean-Up

Cover spill with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Conditions for Safe Storage: Keep away from heat, sparks, and open flame. In the opened canister, this product is sensitive to moisture.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

None of the components of this product have listed occupational exposure limits.

Engineering Controls

General room ventilation is expected to be sufficient for use of the product. Use non-sparking tools.

Protective Equipment

Wear chemical-resistant gloves and chemical safety goggles or safety glasses with side shields and chemical protective clothing.

Hygiene

Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear blue liquid	Vapor pressure: No data available
Odor: Ethereal	Vapor Density: No data available
Odor Threshold: No data available	Density: 0.95 g/cm ³ @ 25°C (77°F)
pH: No data available	Solubility in water: No data available
Melting Point/Freezing Point: No data available	Octanol/Water Partition Coefficient: No data available
Initial Boiling Point: No data available	Autoignition Temperature: No data available
Flash Point: 40°C (104°F)	Decomposition Temperature: No data available
Evaporation Rate (Water = 1): No data available	Viscosity: No data available
Flammable or Explosive Limits: No data available	

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Reacts with water.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Unlikely

Conditions to Avoid: Moisture, heat, flames and sparks

Incompatible Materials: Acids, strong oxidizing agents

Hazardous Decomposition Products: Reacts with water or moisture to form methanol.

SECTION 11. TOXICOLOGICAL INFORMATION

The toxicological properties of this product have not been investigated. Information for some components is provided below.

Acute toxicity:

Oral LD50 rat:	Triethylorthoformate: 7060 mg/kg Trimethoxyvinylsilane: 7340-7460 mg/kg N-(3-(trimethoxysilyl)propyl)ethylenediamine: 2995 mg/kg Trimethoxy(methyl)silane: 11685 mg/kg
Skin LD50 rabbit:	Triethylorthoformate - 17820 mg/kg Trimethoxyvinylsilane - 3460 - 4000 mg/kg N-(3-(trimethoxysilyl)propyl)ethylenediamine - >2000 mg/kg Trimethoxy(methyl)silane - >9500 mg/kg
Skin LD50 guinea pig:	Triethylorthoformate - >8910 mg/kg
Inhalation LC50 rat:	Trimethoxyvinylsilane - 16.79 mg/l N-(3-(trimethoxysilyl)propyl)ethylenediamine - 1.49 - 2.44 mg/l Trimethoxy(methyl)silane - >42.1 mg/l
Skin corrosion/irritation Rabbit:	Triethylorthoformate - slightly irritating Trimethoxyvinylsilane - no irritation N-(3-(trimethoxysilyl)propyl)ethylenediamine - no irritation Trimethoxy(methyl)silane - no irritation

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SECTION 11. TOXICOLOGICAL INFORMATION cont.

Serious eye damage/irritation

Rabbit
 Triethylorthoformate – moderate irritation
 Trimethoxyvinylsilane - mild irritation
 N-(3-(trimethoxysilyl)propyl)ethylenediamine – severe irritation
 Trimethoxy(methyl)silane – mild irritation

Respiratory or skin sensitization

Guinea pig:
 Trimethoxyvinylsilane - did not elicit a delayed contact hypersensitivity response
 N-(3-(trimethoxysilyl)propyl)ethylenediamine - may cause sensitization by skin contact
 Trimethoxy(methyl)silane – no irritation

Repeated dose toxicity

Oral rat:
 Trimethoxyvinylsilane
 NOAEL: <62.5 mg/kg
 Lowest Observable Effect Level – 62.5 mg/kg

 N-(3-(trimethoxysilyl)propyl)ethylenediamine
 NOAEL: >500 mg/kg
 Exposure time: 28 d

 Trimethoxy(methyl)silane
 NOAEL: 50 mg/kg
 Exposure time: 28 d

Germ cell mutagenicity

N-(3-(trimethoxysilyl)propyl)ethylenediamine: negative (Ames test)

Carcinogenicity

None of the components of this product is identified as a carcinogen by IARC, ACGIH, NTP or OSHA.

Reproductive toxicity

N-(3-(trimethoxysilyl)propyl)ethylenediamine
 No Observed Adverse Effect Level (NOAEL):
 500 mg/kg/day (developmental and maternal toxicity)

Oral ratmale:
 Trimethoxyvinylsilane
 NOAEL P1 – 1000 mg/kg
 NOAEL F1 – 1000 mg/kg

Oral ratfemale:
 Trimethoxyvinylsilane
 NOAEL P1 – 250 mg/kg
 NOAEL F1 – 1000 mg/kg

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SECTION 11. TOXICOLOGICAL INFORMATION cont.

Specific target organ toxicity

No data available

Aspiration Hazard

No data available

Potential Health Effects:

Inhalation: May be harmful if inhaled.

Skin: May be harmful if absorbed through skin.

Eyes: Causes serious eye irritation.

Ingestion: May be harmful if swallowed.

SECTION 12. ECOLOGICAL INFORMATION

No data are available for the ecological effects of this product; information on some components is provided below.

Toxicity to fish:

Trimethoxyvinylsilane
LC50 – 96 h
Species: Brachydanio
Result: >100 mg/l

Trimethoxyvinylsilane
LC50 – 96 h
Species: Oncorhynchus mykiss
Result: >191 mg/l

N-(3-(trimethoxysilyl)propyl)ethylenediamine
LC50
Species: Lepomis macrochirus
Result: >100 mg/l

Toxicity to other organisms:

Triethylorthoformate
EC50 – 48 h
Species: Daphnia magna
Result: >100 mg/l

N-(3-(trimethoxysilyl)propyl)ethylenediamine
EC50 – 48 h
Species: Daphnia magna
Result: 87.4 mg/l

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SECTION 12. ECOLOGICAL INFORMATION cont.

Toxicity to algae: Trimethoxyvinylsilane
 EC50 – 72 h
 Species: Desmodemus subspicatus
 Result: >100 mg/l

N-(3-(trimethoxysilyl)propyl)ethylenediamine
 EC50 - 96 h
 Species: Pseudokirchneriella subcapitata
 Result: 8.8 mg/l

N-(3-(trimethoxysilyl)propyl)ethylenediamine
 NOEC
 Species: Pseudokirchneriella subcapitata
 Result: 3.1 mg/l

Toxicity to microorganisms: Trimethoxyvinylsilane
 NOEC
 Species: Bacteria
 Result: >1000 mg/l
 Exposure time: 3 h

Persistence and degradability

No data available. The silane components of the product degrade through hydrolysis into alcohols and silanol and/or siloxanol compounds. The product is not expected to be readily biodegradable.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Product

Contact a licensed professional waste disposal service to dispose of this material. Observe all local, state, provincial and national requirements.

Contaminated packaging

Dispose of as product.

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SECTION 14. TRANSPORTATION INFORMATION

TDG/IATA/IACO/IMDG

Shipping Name: FLAMMABLE LIQUID, N.O.S. (ethyl orthoformate)

UN #: 1993

Class: 3

Packing Group: III

SECTION 15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act (SARA) Title III Information: SARA Section 311/312 (40 CFR 370)

Immediate Hazard: Yes, Flammable liquids category 3, Serious eye damage/irritation category 2A

Delayed Hazard: Yes, Skin sensitization category 1, Specific target organ toxicity (repeat exposure) category 2

Fire Hazard: Yes, Category 3

Pressure Hazard: No

Reactivity Hazard: Low risk for hazardous reactions

SARA Section 313 (40 CFR 372) component

This material does not contain any chemical components with known CAS numbers that exceed the De Minimis reporting levels established by SARA Title III, Section 313 and 40 CFR 372.

State Regulations – California Proposition 65:

This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under at levels which would be subject to the proposition.

Toxic Substances Control Act (TSCA):

All components of this product are included on the TSCA inventory.

International Regulations

Canadian Environmental Protection Act (DSL)

All products are on the Canadian Domestic Substance List (DSL)

Canadian Workplace Hazardous Materials Information System (WHMIS)

Flammable liquids: Category 3

Serious eye damage/irritation: Category 2A

Skin Sensitization: Category 1

Specific Target Organ Toxicity (Repeat Exposure): Category 2

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SECTION 16. OTHER INFORMATION INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS

All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publications of use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.