

SAFETY DATA SHEET

SUPER SEAL SURE SHOT (983KIT & 984)

Revision Date: May 7, 2015
Supersedes: October 10, 2013

Version: 2.0

Section 1 – Identification of the Substance/Mixture and of the Company/Undertaking

Product Name: SUPER SEAL SURE SHOT
Part Numbers: 983005, 983KIT, 984.
Product Class: HVAC and A/C refrigeration sealant and drying additive
Manufacturer: Cliplight Manufacturing
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Toronto, ON M3J 2J1, Canada
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Telephone: +1 416 736 9036

Emergency Telephone: +1 613 996 6666 (Canutec)

Section 2 – Hazards Identification

GHS Classification

Flammable liquids: Category 3
Skin sensitization: Category 1
Serious eye damage/irritation: Category 2

Label elements:



Warning

Hazard statements:

H226 Flammable liquid and vapour
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation

Precautionary statements:

P280 Wear protective gloves and eye protection.
P302 + P352 IF ON SKIN: Wash with soap and plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical attention.
P363 Wash contaminated clothing before reuse.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical attention.

Other hazards:

None known.

Section 3 – Composition/Information on Ingredients

Ingredient Name	CAS No.	EC No.	Composition, wt%
Triethylorthoformate	122-51-0	204-550-4	7 - 13
Trimethoxyvinylsilane	2768-02-7	220-449-8	1 - <3
N-(3-(trimethoxysilyl)propyl) ethylenediamine	1760-24-3	217-164-6	1 - <3
Trimethoxy(methyl)silane	1185-55-3	214-685-0	0.1 – 1

Remaining components of this product are not classified as hazardous under the GHS, 29 CFR 1910.1200, WHMIS 2015, or (EC) No 1272/2008.

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.

Section 5 – Fire-Fighting 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.
Vapours 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 materials for containment and cleaning 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.

Section 9 – Physical and Chemical Properties

Appearance	Clear blue liquid
Odour	Ethereal
Odour threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point/ boiling range	No data available
Flash point	30°C (86°F)
Evaporation rate	No data available
Flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Density	0.95 g/cm ³ @ 25°C (77°F)
Solubility	No data available
Partition coefficient: n-octanol/water	No data available

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Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	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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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

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.

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Section 12 – Ecological Information

No data are available for the ecological effects of this product. Information for 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:

Trimethoxyvinylsilane
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

Toxicity to algae:

Trimethoxyvinylsilane
EC50 – 72 h
Species: Desmodesmus 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.

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No data available

Mobility in soil

No data available

Other adverse effects

No data available

Section 13 – Product Disposal**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.

Section 14 – Transport Information**DOT:** Consumer Commodity, ORM-D**OCEAN (IMDG):** UN1993, FLAMMABLE LIQUID, N.O.S. (Ethyl Orthoformate & Trimethoxyvinylsilane), Class 3, PG III, Ltd Qty, EMS-No: F-E, S-E**AIR (IATA):** UN1993, FLAMMABLE LIQUID, N.O.S. (Ethyl Orthoformate & Trimethoxyvinylsilane), Class 3, PG III**Section 15 – Regulatory Information**

All components of this product are listed in the U.S. Toxic Substances Control Act (TSCA) Inventory.

All components of this product are on the Canadian Domestic Substances List (DSL).

All components of this product are on or in compliance with the Australian Inventory of Chemical Substances (AICS).

A chemical safety assessment has not been carried out for this product.

Section 16 – Other Information**HMIS CLASSIFICATION**

Health Hazard	2
Flammability	3
Reactivity	1

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This version 2.0 (May 7, 2015) has been updated from the previous version 1.0 of October 10, 2013 to conform to the requirements of the GHS, OSHA Hazard Communications Standard 2012, WHMIS 2015 and (EU) No 453/2010 from June 1, 2015.

Hazard classifications in Section 2 have been revised from the previous version based on new information associated with some components. The product is no longer classified as a skin irritant but as a skin sensitizer. Changes in hazard and precautionary statements have been made consistent with changes in hazard classifications.

No substantive changes have been made to instructions for safe use of the product or to its transportation, handling and storage.

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 publication or 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.