MSDS

(Posted 10/24/2012)

The attached MSDS sheets supersede all other MSDS sheets. Please file accordingly.

VENDOR: **CLIPLIGHT A299-00**

STOCK#	MFG# DESCRIPTION
B92-787	AJB7465AXDXE R12 MEDIUM TEMPERATURE CONDENSING UNITS

Material Safety Data Sheet

Date of Preparation: February 1, 2012

Section 1 – Chemical Product and Company Identification

Product Name: SUPER SEAL ADVANCED™ LARGE SYSTEMS
Part Number(s): 948KIT
Product Class: HVAC and A/C refrigeration additive
Manufacturer: Cliplight Manufacturing
961 Alness Street
Toronto, ON M3J 2J1, Canada
Telephone: +1 416 736 9036 **Emergency Telephone:** +1 416 736 9036

Section 2 – Hazards Identification

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes serious eye irritation.
Ingestion: May be harmful if swallowed.

HMIS CLASSIFICATION

Health Hazard:	2
Flammability:	3
Physical Hazards:	0

WHMIS Classification

B2	Flammable liquid
D2B	Moderate eye irritant

GHS Classification
Flammable liquids: Category 3
Skin irritation: Category 3
Eye irritation: Category 2A

GHS Label elements:

Warning

Hazard statements:
H226 Flammable liquid and vapour.
H316 Causes mild skin irritation.
H319 Causes serious eye irritation.

Precautionary statements:
P280 Wear protective gloves/eye protection/face protection
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Section 3 – Composition/ Information on Ingredients

Ingredient Name	CAS No.	EC No.	Composition, wt%
Triethylorthoformate	122-51-0	204-550-4	30 - 50
Trimethoxyvinylsilane	2768-02-7	220-449-8	7 - 13
N-(3-(trimethoxysilyl)propyl) ethylenediamine	1760-24-3	217-164-6	7 - 13
Trimethoxy(methyl)silane	1185-55-3	214-685-0	1 - 5

Section 4 – Emergency and First Aid Procedures

General: Show this safety data sheet to physician/ medical personnel.

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 copious amounts of water. If irritation persists or if contact has been prolonged, obtain medical attention.

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

Note to Physician: This product is expected to react with moisture in the acid contents of the stomach to form methanol.

Section 5 – Fire Fighting Measures

Flash Point: 30°C
Extinguishing Media: DO NOT USE WATER. Use carbon dioxide, dry chemical powder, or appropriate foam.
Special Protective Equipment: Self-contained breathing apparatus and protective clothing as required.
Unusual Fire or Explosion Hazards: Material may decompose to form flammable and/or explosive mixtures in air. Vapour may travel considerable distance to source of ignition and flash back.

Section 6 – Spill, Leak, and Disposal Procedures

Avoid runoff to sewers and waterways. Shut off all sources of ignition. Wear chemical-resistant gloves and chemical safety goggles. 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

Handling: Avoid breathing vapour. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

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

Protective Equipment: Use protective gloves. Use eye protection and chemical protective clothing.
Engineering Controls: Have eye bath and safety shower available. Use non-sparking tools.
General: Wash thoroughly after handling. Wash contaminated clothing before re-use.

Section 9 – Physical and Chemical Properties

Appearance	clear liquid colourless
Odour	ethereal
Odour threshold	No data available
pH	Not applicable
Melting point/freezing point	Not applicable
Initial boiling point/ boiling range	No data available
Flash point	30°C
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/cm3 @ 25°C
Solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity.	No data available

Section 10 – Stability and Reactivity

Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: Unlikely
Conditions to avoid: Moisture; heat, flames and sparks.
Materials to avoid: Acids, strong oxidizing agents
Hazardous decomposition products: Carbon monoxide, carbon dioxide and silicon oxides formed by combustion. Reacts with water or moisture to form methanol.

Section 11– Toxicological Information

See section 2 for routes of exposure and health effects.

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

Oral LD50 rat:
Triethylorthoformate – 7060 mg/kg
Trimethoxyvinylsilane >7300 mg/kg
N-(3-(trimethoxysilyl)propyl)ethylenediamine >2000 mg/kg
Trimethoxy(methyl)silane -11,747 mg/kg

Skin LD50 rabbit:
Triethylorthoformate – 20 mL/kg
Trimethoxyvinylsilane >3400 mg/kg;
N-(3-(trimethoxysilyl)propyl)ethylenediamine >2000 mg/kg
Trimethoxy(methyl)silane – no data available

Eye Irritation rabbit:
Triethylorthoformate – moderate irritation
Trimethoxyvinylsilane - mild irritation
N-(3-(trimethoxysilyl)propyl)ethylenediamine – severe irritation
Trimethoxy(methyl)silane – mild irritation

Section 12– Ecological Information

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

Section 13– Product Disposal

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is flammable. Observe all federal, state, and local environmental regulations.

Section 14 –Transport Information

IMDG/IACO/IATA
Shipping Name: FLAMMABLE LIQUID, N.O.S. (triethyl orthoformate)
UN #: 1993
Class: 3
Packing Group: III

U.S. Department of Transportation (DOT):
Consumer commodity ORM-D

Section 15 –Regulatory Information

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

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

Section 16 –Other Information

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.