



Material Safety Data Sheet

Date of Preparation: April 4, 2007

Section 1 – Chemical Product and Company Identification

Product Name: SUPER SEAL HVACR™; SUPER SEAL ACR™

Part Number(s): 944 KIT; 947 KIT

Product Class: HVAC and refrigeration additive

Manufacturer: Cliplight Manufacturing

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Section 2 – Composition/ Information on Ingredients

Ingredient Name	CAS No.	EC No.	Composition, wt%
Vinyltrimethoxysilane	2768-02-7	220-449-8	10 - 30
N-Beta(aminoethyl)-gamma-aminopropyltrimethoxysilane	1760-24-3	217-164-6	5 - 10
Methyltrimethoxysilane	1185-55-3	214-685-0	1 - 5

Section 3 – Hazards Identification

Primary Entry Routes: Skin, inhalation and ingestion

Target Organs: Eyes, skin, respiratory system, liver, kidney, heart

Effects of Overexposure:

Swallowing: Product generates methyl alcohol which may cause blindness and possibly death if swallowed.

Inhalation: Low concentrations of vapor may cause irritation of the respiratory tract, nasal discomfort and discharge, chest pain and coughing. Prolonged overexposure may result in the inhalation of harmful or potentially fatal amounts of material. (R37)

Skin: Causes irritation with discomfort, local redness and possible swelling. Effects may be prolonged. (R38)

Eye Contact: Liquid or vapor causes irritation, experienced as stinging, excess blinking and tear production, with excess redness and swelling of the conjunctiva. Corneal injury may occur. (R36, R41)

Chronic Effects: May cause a severe cumulative dermatitis. Vapor may cause lung injury.

See Section 16 for risk and safety phrases.

Section 4 – Emergency and First Aid Procedures

Inhalation: Remove 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 water and continue washing for several minutes. Obtain medical attention.

Skin Contact: Remove contaminated clothing. Wash with soap and water. If irritation persists or if contact has been prolonged, obtain medical attention.

Ingestion: If patient is fully conscious, give two glasses of water. Induce vomiting. Obtain medical attention without delay. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.

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

Section 5 – Fire Fighting Measures

Flash Point: 33°C

Flash Point Method: Pensky-Martens Closed Cup

Extinguishing Media: CO2/ Dry chemicals/Foam

Special Protective Equipment: Self-contained breathing apparatus and protective clothing.

Unusual Fire or Explosion Hazards: Vapors form from this product and may travel or be moved by air currents and ignited by pilot light or other flames and ignition sources at locations distant from product handling point.

When this material is exposed to extreme heat, as in a fire, it may polymerize and rupture a closed container.

Burning can produce oxides of carbon, nitrogen and silicon. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

Section 6 – Spill, Leak, and Disposal Procedures

Avoid runoff to sewers or waterways. Soak up small spills with absorbent material. Larger spills should be collected for disposal. Extinguish and do not turn on any ignition source until the area is determined to be free from fire or explosion hazard. Avoid contact with eyes. Wear suitable protective equipment. Avoid contact with liquid and vapors.

Section 7 – Handling and Storage

Respiratory protection: Use self-contained breathing apparatus in high vapor concentrations.

Ventilation: This product should be stored and handled in closed equipment to keep vapors in and moisture out. When this is done, general room ventilation is expected to be satisfactory

Section 8 – Exposure Controls / Personal Protection

Protective Equipment: Use protective gloves; recommended order of use is 4H, butyl, neoprene, nitrile (NBR) and PVC-coated. Use eye protection and chemical protective clothing. Have eye bath and safety shower available.

Section 9 – Physical and Chemical Properties

Physical State: Liquid

Boiling Range: 100 – 260°C

Appearance/Odor: Clear, pale yellow/etheral odor

Vapor Density (Air=1): Heavier than air

% Volatile: N/A

Specific Gravity (@ 20°C): 0.975

Evaporation Rate: N/A

Vapor Pressure: N/A

Section 10 – Stability and Reactivity

Stability: Stable

Polymerization: Hazardous polymerization may occur at temperatures above 150°C.

Incompatibilities & Conditions to Avoid: Reacts with water or moisture to form methanol.

Section 11– Toxicological Information

See section 3 for routes of exposure and health effects.

There may be a delay of several hours between swallowing methanol and onset of signs and symptoms. The effects observed are in part due to acidosis and partially to cerebral edema. Visual effects include blurred or double vision, changes in color perception, restriction of visual fields, and complete blindness. Ingestion of moderate quantities of methanol also produces metabolic acidosis. Onset of symptoms may be delayed up to 48 hours. Ingestion of as little as 10 ml has caused blindness. With massive overdoses, liver, kidney, and heart muscle injuries have been described. 60-200ml of methanol is a fatal dose for most adults.

Oral LD50 rat: Vinyltrimethoxysilane >7300 mg/kg; N-Beta(aminoethyl)-gamma-aminopropyltrimethoxysilane >2000 mg/kg

Skin LD50 rabbit: Vinyltrimethoxysilane >3400 mg/kg; N-Beta(aminoethyl)-gamma-aminopropyltrimethoxysilane >2000 mg/kg

Section 12– Ecological Information

This product is not readily biodegradable. Avoid runoff to sewers and waterways.

Section 13– Product Disposal

See section 6. Incinerate in furnace where permitted. Otherwise, dispose of product according to local regulations.

Section 14 –Transport Information

IMDG/IACO/IATA

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

UN #: 1993

Class: 3

Packing Group: III

Note: When shipping within the USA by ground transportation these products are non-regulated. When shipping by air freight within the USA these products are regulated.

Section 15 –Regulatory Information

Hazard Symbol: Irritant: Xi

Risk Phrases: R10 – Flammable
R36/37/38 – Irritating to eyes, respiratory system and skin
R41 – Risk of serious damage to eyes

Safety Phrases: S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/39 – wear suitable protective clothing, gloves and eye/face protection
S24/25 – avoid contact with skin and eyes

Section 16 –Other Information

Risk Phrases: R10 – Flammable
R36/37/38 – Irritating to eyes, respiratory system and skin
R41 – Risk of serious damage to eyes

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.