



# MATERIAL SAFETY DATA SHEET

## SUPER SEAL PREMIUM™, SUPER SEAL TARGET™

Revision Date: October 11, 2013

Version: 3.0

Supersedes: October 15, 2010

### Section 1 – Product and Company Identification

**Product Names:** SUPER SEAL PREMIUM™, SUPER SEAL TARGET™

**Part Numbers:** 941; 941KIT; 946KIT; 940KIT; 940005

**Product Class:** Automotive a/c additives

**Manufacturer:** Cliplight Manufacturing  
961 Alness Street  
Toronto, ON M3J 2J1, Canada

**email:** sales@cliplight.com

**Telephone:** +1 416 736 9036

**Emergency Telephone:** +1 613 996 6666 (Canutec)

### Section 2 – Hazards Identification

#### GHS Classification

Flammable liquids: Category 2

Skin irritation: Category 2

Skin sensitizer: Category 1

Serious eye damage/irritation: Category 1

Acute toxicity: Category 4 (Inhalation)

Hazardous to the aquatic environment, long-term hazard: Chronic 3

#### **GHS Label elements, including precautionary statements**

Pictograms



Signal word

Danger

#### **Hazard statements:**

H225 Highly flammable liquid and vapour

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

H332 Harmful if inhaled

H412 Harmful to aquatic life with long lasting effects

#### **Precautionary statements:**

P210 Keep away from sparks/open flames/hot surfaces. No smoking.

P261 Avoid breathing gas/mist/vapour/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/eye protection/face protection.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P312 IF INHALED: Call a poison center/doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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**WHMIS Classification**

B2 Flammable liquid  
D2B Moderate skin irritant  
Moderate eye irritant

**OSHA Classification**

Hazardous

**HMIS CLASSIFICATION**

Health Hazard: 2  
Flammability: 3  
Physical Hazards: 1

**Potential Health Effects:**

Inhalation: Harmful if inhaled. May be irritating to mucous membranes and upper respiratory tract. Vapours may cause drowsiness and dizziness.

Skin: Causes skin irritation.

Eyes: Causes severe eye irritation.

Ingestion: May be harmful if swallowed.

**Section 3 – Composition/ Information on Ingredients**

Ingredient Name	CAS No.	EC No.	Composition, wt%
Trimethoxyvinylsilane	2768-02-7	220-449-8	10-30
2-methylpropan-1-ol	78-83-1	201-148-0	10-30
N-(3-(trimethoxysilyl)propyl) ethylenediamine	1760-24-3	217-164-6	10-30
Trimethoxymethylsilane	1185-55-3	214-685-0	1-5
4-methylpentan-2-one	108-10-1	203-550-1	1-5

**Section 4 – First Aid Measures**

**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.

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**Section 5 – Fire Fighting Measures**

**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 – Accidental Release Measures**

**Personal Precautions**

Wear chemical-resistant gloves and chemical safety goggles.

**Environmental Precautions**

Shut off all sources of ignition. 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 breathing vapour. 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:**

Components with workplace controls

2-methylpropan-1-ol	CAS 78-83-1	TWA	50 ppm	ACGIH TLV – Threshold Limit Values
		TWA	50 ppm 150 mg/m3	OSHA – Limits for Air Contaminants
		TWA	100 ppm 300 mg/m3	OSHA – Occupational Exposure Limits
4-hydroxy-4-methylpentan-2-one	CAS 123-42-2	TWA	50 ppm	ACGIH TLV – Threshold Limit Values
		TWA	50 ppm 240 mg/m3	NIOSH Recommended Exposure Limits
			50 ppm 240 mg/m3	OSHA – Occupational Exposure Limits, OSHA - Limits for Air Contaminants

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**Section 8 – Exposure Controls / Personal Protection (continued)**

**Engineering Controls:** Have eye bath available. Use non-sparking tools.

**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.

**Hygiene:** Wash thoroughly after handling. Wash contaminated clothing before re-use.

**Section 9 – Physical and Chemical Properties**

Appearance	Clear pale yellow liquid
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	20°C (68°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 <sup>3</sup> @ 20°C (68°F)
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.

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**Section 11 – Toxicological Information**

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

**Acute Toxicity**

Oral LD50 rat:	Trimethoxyvinylsilane: >7300 mg/kg 2-methylpropan-1-ol: 3100 mg/kg N-(3-(trimethoxysilyl)propyl)ethylenediamine: 2995 mg/kg Trimethoxy(methyl)silane: 11,747 mg/kg 4-hydroxy-4-methylpentan-2-one: 2520 mg/kg
Inhalation LC50 rat: (4 hr.)	Trimethoxyvinylsilane: 16.79 mg/l N-(3-(trimethoxysilyl)propyl)ethylenediamine: 1.49-2.44 mg/l Trimethoxy(methyl)silane: >42.1 mg/l 4-hydroxy-4-methylpentan-2-one: 1500 ppm
Skin LD50 rabbit:	Trimethoxyvinylsilane: >3400 mg/kg 2-methylpropan-1-ol: 3400 mg/kg N-(3-(trimethoxysilyl)propyl)ethylenediamine: >2000 mg/kg 4-hydroxy-4-methylpentan-2-one: 13,500 mg/kg
Skin LD50 rat:	Trimethoxy(methyl)silane: >9500 mg/kg

**Skin corrosion/irritation**

2-methylpropan-1-ol: Guinea pig - Mild skin irritation

**Serious eye damage/irritation**

Eye Irritation rabbit:	Trimethoxyvinylsilane - no eye irritation 2-methylpropan-1-ol - moderate eye irritation N-(3-(trimethoxysilyl)propyl)ethylenediamine – strongly irritating Trimethoxy(methyl)silane – no eye irritation 4-hydroxy-4-methylpentan-2-one – severe eye irritation
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**Respiratory or skin sensitization**

2-methylpropan-1-ol: dermatitis  
N-(3-(trimethoxysilyl)propyl)ethylenediamine: Guinea pig – may cause sensitization by skin contact

**Germ cell mutagenicity**

Trimethoxyvinylsilane – negative (bacteria)  
N-(3-(trimethoxysilyl)propyl)ethylenediamine – negative (Ames test)  
Trimethoxy(methyl)silane – negative (bacteria)

**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)

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**Section 11– Toxicological Information (continued)**

**Specific target organ toxicity – single exposure**

2-methylpropan-1-ol: May cause respiratory irritation.  
May cause drowsiness or dizziness.

**Aspiration Hazard**

No data available

**Potential Health Effects:**

Inhalation: Harmful if inhaled. May be irritating to mucous membranes and upper respiratory tract. Vapours may cause drowsiness and dizziness.

Skin: Causes skin irritation.

Eyes: Causes severe eye irritation.

Ingestion: May be harmful if swallowed.

**Section 12 – Ecological Information**

No data are available for the ecological effects of this product. Information for components is provided below.

**Aquatic Toxicity**

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Toxicity to fish ( <i>Lepomis macrochirus</i> ):	LC50: >100 mg/l
Toxicity to other organisms ( <i>Daphnia magna</i> ):	EC50: 87.4 mg/l (48 h)
Toxicity to algae ( <i>Pseudokirchneriella subcapitata</i> ):	EC50: 8.8 mg/l (96 h)
NOEC ( <i>Pseudokirchneriella subcapitata</i> ):	3.1 mg/l

2-methylpropan-1-ol

Toxicity to fish (*Pimephales promelas*): LC50: >1.220 mg/l

4-hydroxy-4-methylpentan-2-one

Toxicity to fish ( <i>Lepomis macrochirus</i> ):	LC50: 420 mg/l (96 h)
Toxicity to other organisms ( <i>daphnia magna</i> ):	EC50: 9000 mg/l (24 h)

**Persistence and degradability**

The silane components of the product degrade through hydrolysis into alcohols and silanol and/or siloxanol compounds.

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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**Section 13 – Disposal Considerations**

**Product and Contaminated Packaging**

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

**Section 14 – Transport Information**

**IMDG/IACO/IATA**

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

UN #: 1993

Class: 3

Packing Group: II

**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.

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