

SAFETY DATA SHEET

SUPER SEAL PREMIUM™, SUPER SEAL TARGET™

Revision Date: June 9, 2015
Supersedes: October 24, 2014

Version: 3.2

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

Product Names: SUPER SEAL PREMIUM™; SUPER SEAL TARGET™

Part Numbers: 941; 941KIT; 946KIT

Product Class: Automotive a/c additives

Manufacturer: Cliplight Manufacturing
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Section 2 – Hazards Identification

GHS Classification

Flammable liquids (Category 2)

Skin irritation (Category 2)

Skin Sensitization (Category 1)

Serious eye damage (Category 1)

Hazardous to the aquatic environment – Long Term: Chronic 3

Label elements:



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

H412 Harmful to aquatic life with long lasting effects

Precautionary statements:

P210 Keep away from heat, hot surfaces, open flames and other ignition sources. No smoking.

P280 Wear protective gloves and eye protection.

P261 Avoid breathing mist, vapour or spray.

P273 Avoid release to the environment.

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

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately seek medical attention.

P501 Dispose of contents and container in accordance with local, state and national regulations.

Other hazards

None known.

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Section 3 – Composition/Information on Ingredients

Ingredient Name	CAS No.	EC No.	Composition, wt%
Trimethoxyvinylsilane	2768-02-7	220-449-8	25-35
2-methylpropan-1-ol	78-83-1	201-148-0	15-30
N-(3-(trimethoxysilyl)propyl) ethylenediamine	1760-24-3	217-164-6	10-20
Trimethoxymethylsilane	1185-55-3	214-685-0	1-5
4-Hydroxy-4-methylpentan-2-one	123-42-2	204-626-7	0.5-1.5

Remaining components of these products 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 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

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 immediately.

Section 5 – Fire-Fighting Measures

Extinguishing Media

DO NOT USE WATER STREAM. Use carbon dioxide, dry chemical powder, alcohol-resistant foam or water spray.

Special hazards arising from the substance or mixture

Vapours from this product 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. Burning can produce oxides of carbon, nitrogen and silicon.

Advice for firefighters

Self-contained breathing apparatus and protective clothing

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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 or contact with eyes, skin or clothing.

Conditions for safe storage

This product should be stored and handled in closed equipment to keep vapours in and moisture out. When this is done, general room ventilation is expected to be satisfactory. Keep away from sparks or open flame.

Section 8 – Exposure Controls/Personal Protection

Control Parameters:

COMPONENT	CAS No.	VALUE	CONTROL PARAMETERS
Trimethoxyvinylsilane	2768-02-7	Z_INTL_OEL	5 ppm
2-methylpropan-1-ol	78-83-1	STEL	75 ppm 231 mg/m3
		TWA	50 ppm 154 mg/m3
4-Hydroxy-4-methylpentan-2-one	123-42-2	STEL	75 ppm 362 mg/m3
		TWA	50 ppm 241 mg/m3

Engineering Controls

Have eye bath available. Use non-sparking tools.

Protective Equipment

Use protective gloves. Use eye protection.

Hygiene

Wash thoroughly after handling. Wash contaminated clothing before re-use.

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Section 9 – Physical and Chemical Properties

Appearance	Clear pale yellow liquid
Odour	Ethereal
Odour threshold	No data available
OpH	Not applicable
Freezing point	No data available
Boiling point	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	Heavier than air
Specific Gravity	0.95 @ 25°C (77°F)
Water 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

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 hazardous components is provided below.

Acute toxicity

Oral LD50 rat:	Trimethoxyvinylsilane: 7340-7460 mg/kg
	2-methylpropan-1-ol: 2460 mg/kg
	N-(3-(trimethoxysilyl)propyl)ethylenediamine: 2995 mg/kg
	Trimethoxy(methyl)silane: 11,685 mg/kg
	4-hydroxy-4-methylpentan-2-one: 2520 mg/kg

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Inhalation LC50 rat:
4 h
Trimethoxyvinylsilane: 16.79 mg/l
2-methylpropan-1-ol: 8000 ppm
N-(3-(trimethoxysilyl)propyl)ethylenediamine: 1490-2440 mg/l
Trimethoxy(methyl)silane: >42.1 mg/l
4-hydroxy-4-methylpentan-2-one: >10 mg/l

Skin LD50 rabbit:
Trimethoxyvinylsilane: 3460-4000 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: >9,500 mg/kg

Skin corrosion/irritation

Skin irritation rabbit:
Trimethoxyvinylsilane: no skin irritation
2-methylpropan-1-ol: mild skin irritation
N-(3-(trimethoxysilyl)propyl)ethylenediamine: no skin irritation
Trimethoxy(methyl)silane: no skin irritation

Serious eye damage/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 – 24 h

Respiratory or skin sensitization

Guinea pig:
Trimethoxyvinylsilane - did not cause sensitization
2-methylpropan-1-ol: dermatitis
N-(3-(trimethoxysilyl)propyl)ethylenediamine - may cause sensitization by skin contact
Trimethoxy(methyl)silane – did not cause sensitization

Repeated Dose Toxicity

No Observed Adverse Effect Level (NOAEL)

Oral rat:
Trimethoxyvinylsilane: 62.5 mg/kg (lowest observable effect: 62.5 mg/kg)
N-(3-(trimethoxysilyl)propyl)ethylenediamine: >500 mg/kg
Trimethoxy(methyl)silane: 50 mg/kg

Vapour inhalation rat: Trimethoxyvinylsilane: 10 mg/l (lowest observable effect: 100 mg/kg)

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.

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Reproductive toxicity

Trimethoxyvinylsilane - oral - No Observed Adverse Effect Level (NOAEL)

Rat males - NOAEL P1 1000 mg/kg
 NOAEL F1 1000 mg/kg
Rat females NOAEL P1 250 mg/kg
 NOAEL F1 1000 mg/kg

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

Specific target organ toxicity – single exposure

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

Aspiration hazard

No data available

Potential Health Effects:

Swallowing: May be harmful if swallowed.

Inhalation: May be irritating to mucous membranes and upper respiratory tract.

Skin: Causes skin irritation.

Eye Contact: Causes eye damage.

Section 12 – Ecological Information

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

Toxicity to fish N-(3-(trimethoxysilyl)propyl)ethylenediamine

LC50

Species: Lepomis macrochirus

Result: >100 mg/l

Trimethoxyvinylsilane

LC50

Species: Brachydanio rerio

Result: >100 mg/l

2-methylpropan-1-ol

LC50

Species: Pimephales promelas

Result: 1.22 mg/l

4-hydroxy-4-methylpentan-2-one

LC50

Species: Lepomis macrochirus

Result: 420 mg/l

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Toxicity to other organisms N-(3-(trimethoxysilyl)propyl)ethylenediamine
EC50
Species: Daphnia magna
Result: 87.4 mg/l
Exposure time: 48 h

Trimethoxyvinylsilane
EC50
Species: Daphnia magna
Result: 87.4 mg/l
Exposure time: 48 h

4-hydroxy-4-methylpentan-2-one
LC50
Species: Daphnia magna
Result: 9000 mg/l
Exposure time: 24 h

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

NOEC
Species: Pseudokirchneriella subcapitata
Result: 3.1 mg/l

Trimethoxyvinylsilane
EC50
Species: Desmodesmus subspicatus
Result: >100 mg/l
Exposure time: 72 h

Persistence and degradability

Trimethoxyvinylsilane

This component is not readily biodegradable (28 d) when tested according to OECD - Guideline 301 F.

Bioaccumulative potential

Trimethoxyvinylsilane

This component is not bioaccumulating.

Mobility in soil

No data available

Other adverse effects

No data available

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Section 13 – Disposal Considerations

Product

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.

Contaminated packaging

Dispose of as product.

Section 14 – Transport Information

DOT/IMDG/IACO/IATA/TDG

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 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
Physical Hazards:	1

This version 3.2 (June 9, 2015) has been updated from version 3.1 (October 14, 2014) to conform to the requirements of the GHS, OSHA Hazard Communications Standard 2012, WHMIS 2015 and (EU) No 453/2010.

Section 2 has been revised to reflect potential hazards to the aquatic environment. No other changes have been made to the classification of the mixture, description of the product or to instructions for its safe use, 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 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.