SAFETY DATA SHEET

According to Regulation (EU) No 453/2010

SUPER SEAL PRO, SUPER SEAL PREMIUM, TARGET

Revision Date: February 1, 2013 **Version:** 2.1
Supersedes: February 1, 2012

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

Product Names: SUPER SEAL PRO™; SUPER SEAL PREMIUM™; TARGET™
Part Numbers: 940KIT; 940005; 946KIT; 941; 941KIT
Product Class: Automotive a/c additives
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Section 2 – Hazards Identification

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Symbols

F Highly Flammable
Xi Irritant

R-Phrases

R11	Highly Flammable
R36/38	Irritating to eyes and skin
R52	Harmful to aquatic organisms

Full text of R-phrases for this section can be found in Section 16.

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2)
Skin irritation (Category 2)
Serious eye damage (Category 1)
Hazardous to the aquatic environment (Acute 3)

Label elements:

Warning

Hazard statements:
H226 Flammable liquid and vapour
H316 Causes mild skin irritation
H319 Causes serious eye irritation
H402 Harmful to aquatic life

Precautionary statements:
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water.
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%	Classification 67/548/EEC	Classification (EC) No 1272/2008
Trimethoxyvinylsilane	2768-02-7	220-449-8	10 - 30	Xn; R10, R20	Flammable liquids (Cat 2); H225
2-methylpropan-1-ol	78-83-1	201-148-0	10 - 30	X; R10, R37/38, R41, R67	Flammable liquids (Cat 3); H226 Specific organ toxicity – single exposure (Cat 3); H335, H336 Skin irritation (Cat 2); H315 Serious eye damage (Cat 1); H318
N-(3-(trimethoxysilyl)propyl) ethylenediamine	1760-24-3	217-164-6	7 - 13	C; R34, R52/53	Flammable liquids (Cat 4); H227 Skin irritation (Cat 2); H315 Serious eye damage (Cat 1); H317 Skin sensitization (Cat 1); H318 Hazardous to the aquatic environment (Chronic 2); H411
Trimethoxy(methyl)silane	1185-55-3	214-685-0	1 - 5	F; R11, R36/38	Flammable liquids (Cat 2); H225 Eye irritation (Cat 2B); H320
4-hydroxy-4-methylpentan-2-one	123-42-2	204-626-7	0.5 – 1.5	X; R36	Flammable liquids (Cat 3); H226 Acute toxicity, Inhalation (Cat 3); H331 Serious eye damage (Cat 1); H318

Full text of R-phrases and H-statements for this section can be found in Section 16.

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: Remove contaminated clothing. Wash with soap and copious amounts of water.

Ingestion: If patient is fully conscious, give two glasses of water. Induce vomiting. Obtain medical attention without delay.

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

Section 5 – Firefighting Measures

Extinguishing Media: CO2/Dry chemicals/Foam

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. 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.

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

Section 6 – Accidental Release Measures

Extinguish and do not turn on any ignition source until the area is determined to be free from fire or explosion hazard. Wear suitable protective equipment. For larger spills this should include self-contained breathing apparatus, rubber boots and rubber gloves. Avoid contact with liquid and vapours. Avoid contact with eyes.

Avoid runoff to sewers or waterways.

Soak up small spills with absorbent material. Material from larger spills should be collected for disposal. See section 13.

Section 7 – Handling and Storage

Handling: Avoid breathing vapour or contact with eyes, skin or clothing.

Ventilation: 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

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

Section 9 – Physical and Chemical Properties

Appearance	Clear pale yellow liquid
Odour	Ethereal
Vapour density	Heavier than air
Flash Point	20°C (68°F)
Specific Gravity (@20°C (68°F))	0.95

Section 10 – Stability and Reactivity

Reactivity: Reacts with water or moisture to form methanol.
Chemical stability: Stable
Possibility of hazardous reactions: Hazardous reactions will not occur.
Hazardous decomposition products: Methanol

Section 11– Toxicological Information

Primary Entry Routes: Skin, inhalation and ingestion

Target Organs: Kidneys, liver, central nervous system

Effects of Overexposure:
Swallowing: May be harmful if swallowed.
Inhalation: May be irritating to mucous membranes and upper respiratory tract.
Skin: Causes skin irritation.
Eye Contact: May **c**ause severe eye irritation.
Chronic Effects: May cause dermatitis. Symptoms of overexposure may include burning sensation, coughing and wheezing, headache or nausea.

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

Oral LD50 rat:
Trimethoxyvinylsilane >7300 mg/kg
2-methylpropan-1-ol: 3100mg/kg
N-(3-(trimethoxysilyl)propyl)ethylenediamine >2000 mg/kg
4-hydroxy-4-methylpentan-2-one: 2520 mg/kg
Trimethoxy(methyl)silane: 11,747 mg/kg

Skin LD50 rabbit:
Trimethoxyvinylsilane >3400 mg/kg
2-methylpropan-1-ol: 3400mg/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

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.

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Toxicity to fish	LC50 Species: Lepomis macrochirus Result: > 100 mg/l
Toxicity to other organisms	EC50 Species: Daphnia magna Result: 87.4 mg/l Exposure time: 48 h
Toxicity to algae	EC50 Species: Pseudokirchneriella subcapitata Result: 8.8 mg/l Exposure time: 96 h
	NOEC Species: Pseudokirchneriella subcapitata Result: 3.1 mg/l

Section 13– Disposal Considerations

Incinerate in furnace where permitted. Use extra care in igniting this material due to its flammability. Otherwise, dispose of product according to local 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

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

Section 16 –Other Information

Full text of R-phrases in sections 2 and 3:

R10	Flammable
R11	Highly Flammable
R20	Harmful by inhalation
R34	Causes burns
R36	Irritating to eyes
R36/38	Irritating to eyes and skin
R37/38	Irritating to respiratory system and skin
R41	Risk of serious damage to eyes
R52	Harmful to aquatic organisms
R52/53	Harmful to aquatic organisms, may cause long-term effects in the aquatic environment
R67	Vapours may cause drowsiness or dizziness

Full text of H-statements in sections 2 and 3:

H225 Highly flammable liquid and vapour
H226 Flammable liquid and vapour
H227 Combustible liquid
H315 Causes skin irritation
H316 Causes mild skin irritation
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H319 Causes serious eye irritation
H320 Causes eye irritation
H331 Toxic if inhaled
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness
H402 Harmful to aquatic life
H411 Toxic to aquatic life with long lasting effects

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