

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 05.26.2022

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Revision date: 06.01.2023

### Total Shield® Ceramic Seal

#### SECTION 1: Identification

##### Product Identifier

**Product Name:** Total Shield® Ceramic Seal

**Product code:** QW-0504

##### Recommended Use of the Product and Restriction on Use

**Relevant Identified Uses:** Commercial Vehicle Wash -  
Sealant/Protectant/Rinse Aid

**Uses Advised Against:** Not determined or not applicable.

**Reasons Why Uses Advised Against:** Not determined or not applicable.

##### Manufacturer or Supplier Details

###### Manufacturer:

###### United States

Quest Car Care Products

3333 Production Ct.

Zeeland, Michigan 49464

616-772-5100

www.questcarcare.com

##### Emergency Telephone Number:

###### United States

CHEMTREC

1-800-424-9300 (24 hrs)

1-800-262-8200 (24 hrs)

1-703-527-3887 (24 hrs (international))

#### SECTION 2: Hazard(s) Identification

##### GHS Classification:

Acute toxicity (oral), category 4

Acute toxicity (inhalation), category 4

Skin irritation, category 2

Serious eye damage, category 1

Reproductive toxicity, category 2

Specific target organ toxicity - single exposure, category 2

Specific target organ toxicity - repeated exposure, category 2

Aspiration hazard, category 1

##### Label elements

###### Hazard Pictograms:



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**Signal Word:** Danger

**Hazard statements:**

- H315 Causes skin irritation
- H318 Causes serious eye damage
- H361 Suspected of damaging fertility or the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
- H302 Harmful if swallowed
- H332 Harmful if inhaled
- H371 May cause damage to organs if swallowed.
- H304 May be fatal if swallowed and enters airways

**Precautionary Statements:**

- P264 Wash hands/skin thoroughly after contact with or handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P270 Do not eat, drink or smoke when using this product
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P271 Use only outdoors or in a well-ventilated area
- P302+P352 IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.
- P321 Specific treatment (see first aid procedures on the product label in section 4 of this SDS)
- P332+P313 If skin irritation occurs: Get medical advice/attention
- P362 Take off contaminated clothing and wash it before reuse
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P310 Immediately call a POISON CENTER/911/PHYSICIAN IF: swallowed, eye contact, skin burns/rash or breathing difficulties.
- P308+P313 IF exposed or concerned: Get medical advice/attention
- P314 Get medical advice/attention if you feel unwell
- P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- P330 Rinse mouth
- P312 Call a POISON CENTER/911/PHYSICIAN if you feel unwell.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor/911.
- P331 Do NOT induce vomiting
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/911 and follow first aid procedures on this SDS.
- P405 Store locked up
- P501 Dispose of contents/container in accordance with local, state and federal regulations.

**Hazards Not Otherwise Classified:** None

## SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 7732-18-5	Water	40-70
CAS Number: Proprietary	Aminopropyltrimethoxysilane	5-15

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CAS Number: 61789-77-3	Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides	5-15
CAS Number: 111-76-2	2-Butoxyethanol	5-15
CAS Number: Proprietary	Distillate	5-15
CAS Number: 107-41-5	2,4-Pentanediol, 2-methyl-	1-5
CAS Number: 64-19-7	Acetic Acid	1-5
CAS Number: 556-67-2	Octamethylcyclotetrasiloxane	1-5
CAS Number: 67-56-1	Methanol	0.1-1

### Additional Information:

Ingredients not listed above are being withheld as trade secret.

## SECTION 4: First Aid Measures

### Description of First Aid Measures

#### General Notes:

Show this Safety Data Sheet to the doctor in attendance. Take precautions to ensure your own safety before attempting rescue. Wear appropriate safety eyewear, gloves, protective clothing and respiratory protection to prevent exposure. See Section 8 of this SDS for personal protective equipment recommendations. Do not use the mouth to mouth method if victim has ingested or inhaled the product. Give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper device.

Show this Safety Data Sheet to the doctor in attendance.

#### After Inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If experiencing respiratory symptoms, seek medical advice/attention.

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If symptoms develop or persist, seek medical advice/attention.

#### After Skin Contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

#### After Eye Contact:

Immediately rinse eyes with plenty of gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. Seek immediate medical attention, preferably from an ophthalmologist.

Rinse eyes with plenty of water for several minutes. Remove contact lenses, if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

Rinse eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do so.

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Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

#### After Swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

This product presents an aspiration hazard. If aspiration is suspected, seek emergency medical treatment. If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

#### Most Important Symptoms and Effects, Both Acute and Delayed

##### Acute Symptoms and Effects:

Skin contact may result in redness, pain, burning and inflammation.

Eye contact may result in irritation, redness, pain, inflammation, itching, burning, tearing, corneal damage and loss of vision.

Acute oral exposure may lead to dizziness, drowsiness, headache, breathing difficulties, nausea, vomiting, abdominal pain, and lowering of consciousness. Adverse effects are dependent on exposure (dose, concentration, contact time).

Acute inhalation exposure may lead to dizziness, drowsiness, headache, breathing difficulties, nausea, vomiting, abdominal pain, and lowering of consciousness. Adverse effects are dependent on exposure (dose, concentration, contact time).

May cause damage to organs. Effects are dependent on exposure (dose, concentration, contact time).

May be fatal if swallowed and enters airways. Aspiration may cause pulmonary edema and pneumonitis. Symptoms may include shortness of breath, dry cough and irritation of the nose, eyes, lips, mouth and throat.

##### Delayed Symptoms and Effects:

Effects are dependent on exposure (dose, concentration, contact time).

Long term exposure may affect fertility. Symptoms include, but are not limited to: menstrual problems, altered sexual behavior/fertility/ and pregnancy outcome. Long term exposure may also affect development of the unborn child. Symptoms include, but are not limited to: intrauterine growth retardation, pre-term birth, birth defects and postnatal death.

May cause damage to organs through prolonged or repeated exposure. Effects are dependent on exposure (dose, concentration, contact time).

Symptoms of exposure may be delayed.

Symptoms of pulmonary edema may be delayed.

#### Immediate Medical Attention and Special Treatment

##### Specific Treatment:

In case of eye contact, seek prompt medical attention while rinsing is continued.

If exhibiting symptoms of exposure, seek prompt medical attention.

##### Notes for the Doctor:

Treat symptomatically.

### SECTION 5: Firefighting Measures

#### Extinguishing Media

##### Suitable Extinguishing Media:

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Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

### Unsuitable Extinguishing Media:

Do not use water jet.

### Specific Hazards During Fire-Fighting:

Thermal decomposition may produce irritating/toxic fumes/gases.

### Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

### Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

## SECTION 6: Accidental Release Measures

### Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Do not get on skin, eyes or on clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling. Remove contaminated clothing and laundry before reuse.

### Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

### Methods and Material for Containment and Cleaning Up:

Harmful if swallowed. Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Avoid breathing dust, mist, fumes, vapors or spray. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Harmful if inhaled. Put on appropriate personal protective equipment, including a self-contained breathing apparatus (see Section 8) before entering area of spill or leak. Avoid breathing dust, mist, fumes, vapors or spray. Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

### Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

## SECTION 7: Handling and Storage

### Precautions for Safe Handling:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling

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chemical substances. Do not get in eyes. Avoid contact with skin and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

#### Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

### SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

#### Occupational Exposure Limit Values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
WEEL	Octamethylcyclotetrasiloxane	556-67-2	8-Hour TWA: 10 ppm
OSHA	2-Butoxyethanol	111-76-2	8-Hour TWA-PEL: 240 mg/m <sup>3</sup> (50 ppm)
	Acetic Acid	64-19-7	8-Hour TWA-PEL: 25 mg/m <sup>3</sup> (10 ppm)
	Methanol	67-56-1	8-Hour TWA-PEL: 260 mg/m <sup>3</sup> (200 ppm)
NIOSH	2-Butoxyethanol	111-76-2	IDLH: 700 ppm
	2-Butoxyethanol	111-76-2	REL-TWA: 24 mg/m <sup>3</sup> (5 ppm [up to 10 hr])
	2,4-Pentanediol, 2-methyl-	107-41-5	Ceiling Limit: 125 mg/m <sup>3</sup> (25 ppm)
	Acetic Acid	64-19-7	IDLH: 50 ppm
	Acetic Acid	64-19-7	15-Minute STEL: 37 mg/m <sup>3</sup> (15 ppm)
	Acetic Acid	64-19-7	REL-TWA: 25 mg/m <sup>3</sup> (10 ppm [up to 10 hr])
	Methanol	67-56-1	IDLH: 6000 ppm
	Methanol	67-56-1	15-Minute STEL: 325 mg/m <sup>3</sup> (250 ppm)
	Methanol	67-56-1	REL-TWA: 260 mg/m <sup>3</sup> (200 ppm [up to 10 hr])
ACGIH	2-Butoxyethanol	111-76-2	8-Hour TWA: 20 ppm
	2,4-Pentanediol, 2-methyl-	107-41-5	8-Hour TWA: 25 ppm (vapor fraction)
	2,4-Pentanediol, 2-methyl-	107-41-5	15-Minute STEL: 50 ppm (vapor fraction)
	2,4-Pentanediol, 2-methyl-	107-41-5	15-Minute STEL: 10 mg/m <sup>3</sup> (inhalable particulate matter, aerosol only)
	Acetic Acid	64-19-7	15-Minute STEL: 15 ppm
	Acetic Acid	64-19-7	8-Hour TWA: 10 ppm

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Methanol	67-56-1	15-Minute STEL: 250 ppm
	Methanol	67-56-1	8-Hour TWA: 200 ppm
United States(California)	2-Butoxyethanol	111-76-2	8-Hour TWA-PEL: 97 mg/m <sup>3</sup> (20 ppm)
	2,4-Pentanediol, 2-methyl-	107-41-5	Ceiling Limit: 125 mg/m <sup>3</sup> (25 ppm)
	Acetic Acid	64-19-7	Ceiling Limit: 40 ppm
	Acetic Acid	64-19-7	15-Minute STEL: 37 mg/m <sup>3</sup> (15 ppm)
	Acetic Acid	64-19-7	8-Hour TWA-PEL: 25 mg/m <sup>3</sup> (10 ppm)
	Methanol	67-56-1	Ceiling Limit: 1000 ppm
	Methanol	67-56-1	15-Minute STEL: 325 mg/m <sup>3</sup> (250 ppm)
	Methanol	67-56-1	8-Hour TWA-PEL: 260 mg/m <sup>3</sup> (200 ppm)

### Biological Limit Values:

Country (Legal Basis)	Substance	Identifier	Determinant	Specimen	Sampling time	Permissible limits
ACGIH	2-Butoxyethanol	111-76-2	Butoxyacetic acid (with hydrolysis)	Creatinine in Urine	End of shift	200 mg/g
	Methanol	67-56-1	Methanol	Urine	End of shift	15 mg/L

### Information on Monitoring Procedures:

Not determined or not applicable.

### Appropriate Engineering Controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

### Personal Protection Equipment

#### Eye and Face Protection:

Use safety glasses with side shields or goggles. Consider the use of a face shield for splash protection. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).  
Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

#### Skin and Body Protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Full body protection should be worn. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by

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a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

### Respiratory Protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

### General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

## SECTION 9: Physical and Chemical Properties

### Information on Basic Physical and Chemical Properties

<b>Appearance</b>	Yellow liquid
<b>Odor</b>	Etherlike - Acrid - Tropical
<b>Odor threshold</b>	Not determined or not available.
<b>pH</b>	3.5-5.5
<b>Melting point/freezing point</b>	Not determined or not available.
<b>Initial boiling point/range</b>	Not determined or not available.
<b>Flash point (closed cup)</b>	>93 F
<b>Evaporation rate</b>	Not determined or not available.
<b>Flammability (solid, gas)</b>	Not determined or not available.
<b>Upper flammability/explosive limit</b>	Not determined or not available.
<b>Lower flammability/explosive limit</b>	Not determined or not available.
<b>Vapor pressure</b>	Not determined or not available.
<b>Vapor density</b>	Not determined or not available.
<b>Density</b>	Not determined or not available.
<b>Relative density</b>	0.95-0.97
<b>Solubilities</b>	Water
<b>Partition coefficient (n-octanol/water)</b>	Not determined or not available.
<b>Auto/Self-ignition temperature</b>	Not determined or not available.
<b>Decomposition temperature</b>	Not determined or not available.
<b>Dynamic viscosity</b>	Not determined or not available.
<b>Kinematic viscosity</b>	Not determined or not available.



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<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	Not determined or not available.

## SECTION 10: Stability and Reactivity

### Reactivity:

Not reactive under recommended handling and storage conditions.

### Chemical Stability:

Stable under recommended handling and storage conditions.

### Possibility of Hazardous Reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage.

### Conditions to Avoid:

Avoid confined spaces, extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

### Incompatible Materials:

None known.

### Hazardous Decomposition Products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological Information

### Acute Toxicity

#### Assessment:

Harmful if swallowed.

Harmful if inhaled.

**Product Data:** No data available.

#### Substance Data:

Name	Route	Result
Octamethylcyclotetrasiloxane	oral	LD50 Rat: > 4800 mg/kg
	dermal	LD50 Rat: > 2375 mg/kg
	inhalation	LC50 Rat: 36 mg/L (4 hr [Aerosol])
2-Butoxyethanol	dermal	LD50 Rabbit: 1060 mg/kg
	Oral ATE	LD50 Rat: 1200 mg/kg (Annex VI to the CLP)
	oral	LD50 Rat: 470 mg/kg
	Inhalation ATE	LC50 Rat: 11 mg/L (4 hr [Vapor])
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides	Oral ATE	LD50 Rat: 500 mg/L
Distillate	inhalation	LC50 Rat: 1.72 mg/L (4 hr [aerosol])
	oral	LD50 Rat: > 5000 mg/kg
	dermal	LD50 Rabbit: > 2000 mg/kg
2,4-Pentandiol, 2-methyl-	oral	LD50 Rat: 3700 mg/kg
	inhalation	LC50 Rat: > 20 mg/L (4 h [vapor])
	dermal	LD50 Ray: >2000 mg/kg

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Name	Route	Result
Acetic Acid	oral	LD50 rat: 3310 mg/kg
	inhalation	LC50 mouse: 5620 ppmV (1H)
Methanol	Oral ATE	LD50 Rat: 100 mg/kg
	Dermal ATE	LD50 Rabbit: 300 mg/kg
	Inhalation ATE	LC50 Rat: 3 mg/L (4 hr [vapor])

### Skin Corrosion/Irritation

**Assessment:**

Causes skin irritation.

**Product Data:**

No data available.

**Substance Data:**

Name	Result
2-Butoxyethanol	Causes skin irritation.
Acetic Acid	Causes severe skin burns.
Aminopropyltrimethoxysilane	Causes skin irritation.
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides	Causes severe skin burns.
2,4-Pentanediol, 2-methyl-	Causes skin irritation.

### Serious Eye Damage/Irritation

**Assessment:**

Causes serious eye damage.

**Product Data:**

No data available.

**Substance Data:**

Name	Result
2-Butoxyethanol	Causes serious eye irritation.
Acetic Acid	Causes serious eye damage.
Aminopropyltrimethoxysilane	Causes serious eye irritation.
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides	Causes serious eye damage.
2,4-Pentanediol, 2-methyl-	Causes serious eye irritation.

### Respiratory or Skin Sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product Data:**

No data available.

**Substance Data:** No data available.

### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product Data:** No data available.

**Substance Data:** No data available.

**International Agency for Research on Cancer (IARC):**

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Name	Classification
Water	Not Applicable
Octamethylcyclotetrasiloxane	Not Applicable
Aminopropyltrimethoxysilane	Not Applicable
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides	Not Applicable
2,4-Pentanediol, 2-methyl-	Not Applicable
2-Butoxyethanol	Group 3
Acetic Acid	Not Applicable
Methanol	Not Applicable
Distillate	Group 3

### National Toxicology Program (NTP):

Name	Classification
Water	Not Applicable
Octamethylcyclotetrasiloxane	Not Applicable
Aminopropyltrimethoxysilane	Not Applicable
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides	Not Applicable
2,4-Pentanediol, 2-methyl-	Not Applicable
2-Butoxyethanol	Not Applicable
Acetic Acid	Not Applicable
Methanol	Not Applicable
Distillate	Not Applicable

**OSHA Carcinogens:** Not applicable

### Germ Cell Mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product Data:**

No data available.

**Substance Data:** No data available.

### Reproductive Toxicity

**Assessment:**

Suspected of damaging fertility or the unborn child.

**Product Data:**

No data available.

**Substance Data:**

Name	Result
Octamethylcyclotetrasiloxane	Suspected of damaging fertility.

### Specific Target Organ Toxicity (Single Exposure)

**Assessment:**

May cause damage to organs.

**Product Data:**

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No data available.

### Substance Data:

Name	Result
Methanol	Causes damage to Optic nerve (nervus opticus), central nervous system.

### Specific Target Organ Toxicity (Repeated Exposure)

#### Assessment:

May cause damage to organs through prolonged or repeated exposure.

#### Product Data:

No data available.

#### Substance Data:

Name	Result
Distillate	May cause damage to spleen, liver, and bone marrow through prolonged or repeated exposure.

### Aspiration toxicity

#### Assessment:

May be fatal if swallowed and enters airways.

#### Product Data:

No data available.

#### Substance Data:

Name	Result
Distillate	May be fatal if swallowed and enters airways.

### Information on Likely Routes of Exposure:

No data available.

### Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

No data available.

### Other Information:

No data available.

## SECTION 12: Ecological Information

### Acute (Short-Term) Toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product Data:** No data available.

#### Substance Data:

Name	Result
2-Butoxyethanol	Aquatic Invertebrates EC50 Daphnia magna: 1550 mg/L (48 hr [mobility])
	Fish LC50 Oncorhynchus mykiss: 1474 mg/L (96 hr)
	Aquatic Plants EC50 Freshwater algae: 1840 mg/L (72 hr [growth rate])
Octamethylcyclotetrasiloxane	Aquatic Plants EC50 Raphidocelis subcapitata: > 0.022 mg/L (96 hr [growth rate])
	Aquatic Invertebrates EC50 Daphnia magna: > 0.015 mg/L (48 hr [mobility])
	Fish LC50 Oncorhynchus mykiss: > 0.022 mg/L (96 hr)

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Name	Result
2,4-Pentenediol, 2-methyl-	Fish LC50 Pimephales promelas: 8690 mg/L (96 h [mortality])
	Aquatic Invertebrates EC50 Daphnia magna: 4310 mg/L (48 h [mortality])
	Aquatic Plants EC50 Pseudokirchneriella subcapitata: >429 mg/L (72 h [biomass, growth rate])
Methanol	Fish LC50 Lepomis macrochirus: 15,400 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 18,260 mg/L (96 hr)
	Aquatic Plants EC50 Selenastrum capricornutum: 22,000 mg/L (96 hr [growth rate])
Distillate	Aquatic Invertebrates EC50 Daphnia magna: 2 mg/L (48 hr [mobility; read across])
	Aquatic Plants EC50 Raphidocelis subcapitata: 22 mg/L (72 hr [growth rate; read across])

### Chronic (Long-Term) Toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product Data:** No data available.

#### Substance Data:

Name	Result
Octamethylcyclotetrasiloxane	Fish NOEC Oncorhynchus mykiss: $\geq 0.0044$ mg/L (93 d [embryo viability, hatching success, larval survival and growth])
	Aquatic Invertebrates NOEC Daphnia magna: $\geq 0.015$ mg/L (21 d [growth and reproduction])
	Aquatic Plants NOEC Pseudokirchneriella subcapitata: $< 0.022$ mg/L (96 hr [cell density])
2-Butoxyethanol	Fish LC50 Poecilia reticulata: 983 mg/L (7 d)
	Aquatic Invertebrates EC50 Daphnia magna: 297 mg/L (21 d [reproduction])
Acetic Acid	Fish LC50 Freshwater fish: $>300.82$ mg/L (96 hr [calculated])
	Aquatic Invertebrates EC50 Daphnia magna: $>300.82$ mg/L (48 hr [calculated])
	Aquatic Plants EC50 Skeletonema costatum: $>300.82$ mg/L (72 hr [calculated])
Methanol	Aquatic Invertebrates NOEC Daphnia magna: 122 mg/L (21 d [reproduction])

### Persistence and Degradability

**Product Data:** No data available.

#### Substance Data:

Name	Result
Octamethylcyclotetrasiloxane	This substance is not readily biodegradable. 3.7% degradation in water, measured by CO <sub>2</sub> evolution, after 29 days.
2-Butoxyethanol	Readily biodegradable (90.4% degradation after 28 days, measured by CO <sub>2</sub> evolution).
Acetic Acid	Readily biodegradable in water.
Methanol	The substance is readily biodegradable. 97% degradation after 20 days, measured by Oxygen consumption.

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Name	Result
Distillate	Standard biodegradation studies are not applicable to petroleum UVCB substances.
2,4-Pentanediol, 2-methyl-	Readily biodegradable (81% degradation after 28 days, measured by Oxygen consumption).

### Bioaccumulative Potential

**Product Data:** No data available.

**Substance Data:**

Name	Result
Octamethylcyclotetrasiloxane	This substance has the potential to bioaccumulate significantly (log Pow=6.98)
2-Butoxyethanol	Not expected to bioaccumulate (log Kow = 0.83).
Methanol	This substance does not significantly bioaccumulate in fish. Experimental BCFs of < 10 in fish species.
2,4-Pentanediol, 2-methyl-	Accumulation in organisms is not to be expected (log Kow: 0.58).
Acetic Acid	Bioaccumulation is not expected. BCF (aquatic species): 3.16 dimensionless
Distillate	Standard bioaccumulation studies are not applicable to petroleum UVCB substances.

### Mobility in Soil

**Product Data:** No data available.

**Substance Data:**

Name	Result
Octamethylcyclotetrasiloxane	This substance is hardly mobile, therefore adsorption to soil is expected (log Koc: 4.22).
2,4-Pentanediol, 2-methyl-	This substance is expected to have a very high mobility (estimated Koc: 1).
Acetic Acid	The substance is highly mobile in soil with a very low potential for adsorption to soil and sediment. Koc at 20 °C: 1.153
Methanol	The substance is highly mobile with a very low potential for adsorption to soil and sediment. Koc: 0.13 - 1 dimensionless
Distillate	Standard adsorption/desorption studies are not applicable to petroleum UVCB substances.

### Results of PBT and vPvB assessment

**Product Data:**

**PBT assessment:** This product does not contain any substances that are assessed to be a PBT.

**vPvB assessment:** This product does not contain any substances that are assessed to be a vPvB.

**Substance Data:**

**PBT assessment:**

2-Butoxyethanol	The substance is not PBT.
Methanol	The substance is not PBT.
Octamethylcyclotetrasiloxane	Substance is not PBT.
Distillate	This substance is not PBT.
2,4-Pentanediol, 2-methyl-	The substance is not PBT.
Acetic Acid	The substance is not PBT.

**vPvB assessment:**

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2-Butoxyethanol	The substance is not vPvB.
Methanol	The substance is not vPvB.
Octamethylcyclotetrasiloxane	Substance is not vPvB.
Distillate	This substance is not vPvB.
2,4-Pentanediol, 2-methyl-	The substance is not vPvB.
Acetic Acid	The substance is not vPvB.

**Other Adverse Effects:** No data available.

## SECTION 13: Disposal Considerations

### Disposal Methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

### Contaminated packages:

Not determined or not applicable.

## SECTION 14: Transport Information

### United States Transportation of Dangerous Goods (49 CFR DOT)

<b>UN Number</b>	Not regulated
<b>UN Proper Shipping Name</b>	Not regulated
<b>UN Transport Hazard Class(es)</b>	None
<b>Packing Group</b>	None
<b>Environmental Hazards</b>	None
<b>Special Precautions for User</b>	None

### International Maritime Dangerous Goods (IMDG)

<b>UN Number</b>	Not regulated
<b>UN Proper Shipping Name</b>	Not regulated
<b>UN Transport Hazard Class(es)</b>	None
<b>Packing Group</b>	None
<b>Environmental Hazards</b>	None
<b>Special Precautions for User</b>	None

### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

<b>UN Number</b>	Not regulated
<b>UN Proper Shipping Name</b>	Not regulated
<b>UN Transport Hazard Class(es)</b>	None
<b>Packing Group</b>	None
<b>Environmental Hazards</b>	None
<b>Special Precautions for User</b>	None

## SECTION 15: Regulatory Information

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### United States Regulations

**Inventory Listing (TSCA):** All ingredients are listed-active or exempt.

**Significant New Use Rule (TSCA Section 5):** None of the ingredients are listed.

**Export Notification under TSCA Section 12(b):**

7732-18-5	Water	Not Listed
556-67-2	Octamethylcyclotetrasiloxane	Listed
111-76-2	2-Butoxyethanol	Not Listed
Proprietary	Aminopropyltrimethoxysilane	Not Listed
61789-77-3	Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides	Not Listed
107-41-5	2,4-Pentanediol, 2-methyl-	Not Listed
64-19-7	Acetic Acid	Not Listed
67-56-1	Methanol	Not Listed
Proprietary	Distillate	Not Listed

**SARA Section 302 Extremely Hazardous Substances:** None of the ingredients are listed.

**SARA Section 313 Toxic Chemicals:**

111-76-2	2-Butoxyethanol	Listed
67-56-1	Methanol	Listed

**CERCLA:**

111-76-2	2-Butoxyethanol	Listed	N/A
64-19-7	Acetic Acid	Listed	5000 lbs
67-56-1	Methanol	Listed	5000 lbs

**RCRA:**

67-56-1	Methanol	Listed	U154
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**Section 112(r) of the Clean Air Act (CAA):** None of the ingredients are listed.

**Massachusetts Right to Know:**

107-41-5	2,4-Pentanediol, 2-methyl-	Listed
111-76-2	2-Butoxyethanol	Listed
64-19-7	Acetic Acid	Listed
67-56-1	Methanol	Listed

**New Jersey Right to Know:**

107-41-5	2,4-Pentanediol, 2-methyl-	Listed
111-76-2	2-Butoxyethanol	Listed
64-19-7	Acetic Acid	Listed
67-56-1	Methanol	Listed

**New York Right to Know:**

107-41-5	2,4-Pentanediol, 2-methyl-	Listed
111-76-2	2-Butoxyethanol	Listed



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64-19-7	Acetic Acid	Listed
67-56-1	Methanol	Listed
Proprietary	Distillate	Listed

### Pennsylvania Right to Know:

107-41-5	2,4-Pentanediol, 2-methyl-	Listed
111-76-2	2-Butoxyethanol	Listed
64-19-7	Acetic Acid	Listed
67-56-1	Methanol	Listed

### California Proposition 65:

**⚠️WARNING:** This product can expose you to Methanol; which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Additional information:** Not determined.

## SECTION 16: Other Information

**Abbreviations and Acronyms:** None

### Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 0-0-0

**HMIS:** 2-1-0-B

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**End of Safety Data Sheet**