

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Revision Date:
11/18/2014

Date of last issue: -
Date of first issue: 11/18/2014

SECTION 1. IDENTIFICATION

Product name : PRICE AQUA SILANE-40

Product code : 31610 TO 31604

Manufacturer or supplier's details

Company name of supplier : CHARLES PAINT RESEARCH, INC.

Address : 2401 E. 85TH STREET
KANSAS CITY, MO 64132

Telephone : 816-523-7466

Emergency telephone : 24 Hour Emergency Telephone
CHEMTREC : (800) 424-9300

Recommended use of the chemical and restrictions on use

Recommended use : PENETRATING SEALER FOR CONCRETE SURFACES

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin irritation : Category 2

Eye irritation : Category 2A

Reproductive toxicity : Category 2

GHS Label element

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H315 Causes skin irritation.
H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0 Revision Date: 11/18/2014 MSDS Number: 773499-00001 Date of last issue: -
Date of first issue: 11/18/2014

P261 Avoid breathing spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

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

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Silicone emulsion

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Triethoxyoctylsilane	2943-75-1	>= 10 - < 20
Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term	68554-54-1	>= 1 - < 5
Ethoxylated lauryl alcohol	9002-92-0	>= 1 - < 5
Octamethylcyclotetrasiloxane	556-67-2	>= 0.1 - < 1
Methanol	67-56-1	>= 0.1 - < 1
Hexadecyltrimethyl ammonium chloride	112-02-7	>= 0.1 - < 1

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

- If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Get medical attention.
- If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention if symptoms occur.
Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
- Notes to physician : Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO₂)
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides
Silicon oxides
Formaldehyde
Nitrogen oxides (NO_x)
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions : Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Do not get on skin or clothing. Avoid inhalation of vapor or mist. Do not swallow. Do not get in eyes. Handle in accordance with good industrial hygiene and safety practice. Keep away from water. Protect from moisture. Take care to prevent spills, waste and minimize release to the

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0 Revision Date: 11/18/2014 MSDS Number: 773499-00001 Date of last issue: -
Date of first issue: 11/18/2014

environment.

Conditions for safe storage : Keep in properly labeled containers.
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Octamethylcyclotetrasiloxane	556-67-2	TWA	10 ppm	DCC OEL
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m ³	NIOSH REL
		ST	250 ppm 325 mg/m ³	NIOSH REL
		TWA	200 ppm 260 mg/m ³	OSHA Z-1

Hazardous components without workplace control parameters

Ingredients	CAS-No.
Triethoxyoctylsilane	2943-75-1
Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term	68554-54-1
Ethoxylated lauryl alcohol	9002-92-0
Hexadecyltrimethyl ammonium chloride	112-02-7

Occupational exposure limits of decomposition products

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m ³	NIOSH REL
		ST	250 ppm 325 mg/m ³	NIOSH REL
		TWA	200 ppm 260 mg/m ³	OSHA Z-1
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m ³	NIOSH REL
		TWA	1,000 ppm	OSHA Z-1

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0 Revision Date: 11/18/2014 MSDS Number: 773499-00001 Date of last issue: -
 Date of first issue: 11/18/2014

			1,900 mg/m ³	
		STEL	1,000 ppm	ACGIH

Biological occupational exposure limits

Ingredients	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGIH BEI

Engineering measures : Processing may form hazardous compounds (see section 10).
 Ensure adequate ventilation, especially in confined areas.
 Minimize workplace exposure concentrations.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection
Material : Impervious gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
 Safety goggles

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.
These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.
For further information regarding the use of silicones / organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact the Dow Corning customer service group.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Color	: white, milky
Odor	: slight
Odor Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: > 35 °C
Flash point	: > 100 °C Method: closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Relative density	: 1.01

SAFETY DATA SHEET

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

Solubility(ies)
Water solubility : No data available

Partition coefficient: n-
octanol/water : No data available

Autoignition temperature : No data available

Thermal decomposition : No data available

Viscosity
Viscosity, dynamic : 50 mPa.s

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-
tions : Use at elevated temperatures may form highly hazardous
compounds.
Can react with strong oxidizing agents.
Hazardous decomposition products will be formed upon
contact with water or humid air.
Hazardous decomposition products will be formed at elevated
temperatures.

Conditions to avoid : Exposure to moisture.

Incompatible materials : Oxidizing agents
Water

Hazardous decomposition products
Contact with water or hu- : Methanol
mid air : Ethanol

Thermal decomposition : Formaldehyde

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : > 40 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Ingredients:

Triethoxyoctylsilane:

Acute oral toxicity : LD50 (Rat): > 5,110 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): 6,730 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on test data

Ethoxylated lauryl alcohol:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 1.6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Acute oral toxicity : LD50 (Rat): > 4,800 mg/kg
Assessment: The substance or mixture has no acute oral toxicity
Remarks: Based on test data

Acute inhalation toxicity : LC50 (Rat): 2975 ppm
Exposure time: 4 h
Test atmosphere: vapor
Assessment: The substance or mixture has no acute inhalation toxicity

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

Remarks: Based on test data

Acute dermal toxicity : LD50 (Rabbit): > 2.5 ml/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on test data

Methanol:

Acute oral toxicity : Acute toxicity estimate (Humans): 300 mg/kg
Method: Expert judgment

Acute inhalation toxicity : Acute toxicity estimate (Humans): 3 mg/l
Test atmosphere: vapor
Method: Expert judgment

Acute dermal toxicity : Acute toxicity estimate (Humans): 300 mg/kg
Method: Expert judgment

Hexadecyltrimethyl ammonium chloride:

Acute oral toxicity : LD50 (Rat): 699 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): 528 mg/kg
Method: OECD Test Guideline 402
Remarks: Based on data from similar materials

Skin corrosion/irritation

Causes skin irritation.

Ingredients:

Triethoxyoctylsilane:

Species: Rabbit
Result: Skin irritation
Remarks: Based on test data

Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term:

Result: Skin irritation
Remarks: Based on data from similar materials

Ethoxylated lauryl alcohol:

Result: No skin irritation
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Species: Rabbit
Result: No skin irritation
Remarks: Based on test data

Methanol:

Species: Rabbit
Result: No skin irritation

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version	Revision Date:	MSDS Number:	Date of last issue: -
1.0	11/18/2014	773499-00001	Date of first issue: 11/18/2014

Hexadecyltrimethyl ammonium chloride:

Species: Rabbit

Result: Corrosive after 1 to 4 hours of exposure

Remarks: Based on data from similar materials

Serious eye damage/eye irritation

Causes serious eye irritation.

Ingredients:

Triethoxyoctylsilane:

Species: Rabbit

Result: No eye irritation

Remarks: Based on test data

Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term:

Result: Irritation to eyes, reversing within 21 days

Remarks: Based on data from similar materials

Ethoxylated lauryl alcohol:

Result: Irreversible effects on the eye

Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Species: Rabbit

Result: No eye irritation

Remarks: Based on test data

Methanol:

Species: Rabbit

Result: No eye irritation

Hexadecyltrimethyl ammonium chloride:

Species: Rabbit

Result: Irreversible effects on the eye

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Ingredients:

Ethoxylated lauryl alcohol:

Test Type: Maximization Test (GPMT)

Routes of exposure: Skin contact

Species: Guinea pig

Result: negative

Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Assessment: Does not cause skin sensitization.

Test Type: Maximization Test (GPMT)

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version	Revision Date:	MSDS Number:	Date of last issue: -
1.0	11/18/2014	773499-00001	Date of first issue: 11/18/2014

Species: Guinea pig
Remarks: No known sensitising effect.
Based on test data

Methanol:

Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative

Hexadecyltrimethyl ammonium chloride:

Test Type: Buehler Test
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Ingredients:

Triethoxyoctylsilane:

Genotoxicity in vitro : Test Type: Mutagenicity (in vitro mammalian cytogenetic test)
Result: negative
Remarks: Based on test data

Ethoxylated lauryl alcohol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Octamethylcyclotetrasiloxane:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on test data

: Test Type: Mutagenicity (in vitro mammalian cytogenetic test)
Result: negative
Remarks: Based on test data

: Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on test data

: Test Type: In vitro sister chromatid exchange assay in mammalian cells
Result: negative
Remarks: Based on test data

: Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

Remarks: Based on test data

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Test species: Rat
Application Route: inhalation (vapor)
Result: negative
Remarks: Based on test data

Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Test species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on test data

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

Methanol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

: Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Test species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Hexadecyltrimethyl ammonium chloride:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Carcinogenicity

Not classified based on available information.

Ingredients:

Methanol:

Species: Mouse
Application Route: inhalation (vapor)
Exposure time: 18 Months
Method: OECD Test Guideline 453
Result: negative

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Ingredients:

Triethoxyoctylsilane:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat, male and female
Application Route: Ingestion
Symptoms: No effects on fertility.
Remarks: Based on test data

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat, male and female
Application Route: Ingestion
Symptoms: No effects on fetal development.
Remarks: Based on test data

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

Octamethylcyclotetrasiloxane:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat, male and female
Application Route: inhalation (vapor)
Symptoms: Effects on fertility.
Remarks: Based on test data

Effects on fetal development : Test Type: Prenatal development toxicity study (teratogenicity)
Species: Rabbit
Application Route: inhalation (vapor)
Symptoms: No effects on fetal development.
Remarks: Based on test data

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

Methanol:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Mouse
Application Route: Ingestion

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: positive
Remarks: The effects were seen only at maternally toxic doses.

Hexadecyltrimethyl ammonium chloride:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rabbit
Application Route: Skin contact
Result: negative

STOT-single exposure

Not classified based on available information.

Ingredients:

Methanol:

Target Organs: Eyes, Central nervous system
Assessment: Causes damage to organs.

STOT-repeated exposure

Not classified based on available information.

Ingredients:

Triethoxyoctylsilane:

Routes of exposure: Ingestion
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Octamethylcyclotetrasiloxane:

Routes of exposure: Ingestion
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Routes of exposure: inhalation (vapor)

Assessment: No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less.

Routes of exposure: Skin contact

Assessment: No significant health effects observed in animals at concentrations of 200 mg/kg

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

bw or less.

Repeated dose toxicity

Ingredients:

Triethoxyoctylsilane:

Species: Rat
Application Route: Ingestion
Remarks: Based on test data

Ethoxylated lauryl alcohol:

Species: Rat
NOAEL: ≥ 100 mg/kg
Application Route: Ingestion
Exposure time: 90 d
Method: OECD Test Guideline 408
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Species: Rat
Application Route: Ingestion
Remarks: Based on test data

Species: Rat
Application Route: inhalation (vapor)
Remarks: Based on test data

Species: Rabbit
Application Route: Skin contact
Remarks: Based on test data

Methanol:

Species: Rat
NOAEL: 1.06 mg/l
Application Route: inhalation (vapor)
Exposure time: 90 d

Hexadecyltrimethyl ammonium chloride:

Species: Rat
NOAEL: 300 mg/kg
Application Route: Ingestion
Exposure time: 28 d

Aspiration toxicity

Not classified based on available information.

Further information

Ingredients:

Triethoxyoctylsilane:

Remarks: Findings from a combined repeated-dose toxicity study with reproduc-

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version	Revision Date:	MSDS Number:	Date of last issue: -
1.0	11/18/2014	773499-00001	Date of first issue: 11/18/2014

tive/developmental screening endpoints on n-octyltriethoxysilane have shown neurological effects in rats at high doses (1000 mg/kg). Paralysis and paresis of the limbs, and demyelination of the brain, spinal cord, sciatic and tibial nerves was noted in some animals.

Octamethylcyclotetrasiloxane:

Remarks: Results from a 2 year repeated vapor inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Based on the available information on its potential to cause harm to human health, Health Canada, in a 2008 screening assessment, has concluded that octamethylcyclotetrasiloxane is not entering the environment in a quantity or concentration or under conditions that constitute or may constitute a danger in Canada to human life or health (<http://www.ec.gc.ca/ese-ees/default.asp?lang=En&n=2481B508-1>). Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Triethoxyoctylsilane:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia sp.): > 0.049 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: No toxicity at the limit of solubility.

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0.13 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: No toxicity at the limit of solubility.

Ethoxylated lauryl alcohol:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 1 - 10 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 0.1 - 1 mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials

NOEC (Pseudokirchneriella subcapitata (green algae)): > 0.1 - 1 mg/l
Exposure time: 72 h

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
----------------	------------------------------	------------------------------	--

Remarks: Based on data from similar materials

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC (Lepomis macrochirus (Bluegill sunfish)): > 0.1 - 1 mg/l
Exposure time: 30 d
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): > 0.1 - 1 mg/l
Exposure time: 21 d
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.022 mg/l
Exposure time: 96 h
Remarks: No toxicity at the limit of solubility.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia sp.): > 0.015 mg/l
Exposure time: 48 h
Remarks: No toxicity at the limit of solubility.

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 0.022 mg/l
Exposure time: 96 h
Remarks: No toxicity at the limit of solubility.

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.022 mg/l
Exposure time: 96 h

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): \geq 0.0044 mg/l
Remarks: No toxicity at the limit of solubility.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia sp.): > 0.0079 mg/l
Exposure time: 21 d
Remarks: No toxicity at the limit of solubility.

M-Factor (Chronic aquatic toxicity) : 1

Toxicity to bacteria : IC50: > 10,000 mg/l
Method: ISO 8192

Ecotoxicology Assessment
Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

Methanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0 Revision Date: 11/18/2014 MSDS Number: 773499-00001 Date of last issue: -
Date of first issue: 11/18/2014

aquatic invertebrates Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 22,000 mg/l
Exposure time: 96 h
Method: OPPTS 850.5400

Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Orange-red killifish)): 15,800 mg/l
Exposure time: 200 h

Toxicity to bacteria : EC50: 20,000 mg/l
Exposure time: 15 h

Hexadecyltrimethyl ammonium chloride:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0.19 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.09 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.05 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC10 (Pseudokirchneriella subcapitata (green algae)): 0.047 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 32.2 µg/l
Exposure time: 28 d
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 6.8 µg/l
Exposure time: 21 d
Remarks: Based on data from similar materials

M-Factor (Chronic aquatic toxicity) : 1

Toxicity to bacteria : EC50 (Pseudomonas putida): 0.96 mg/l
Exposure time: 16 h
Method: DIN 38 412 Part 8

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0 Revision Date: 11/18/2014 MSDS Number: 773499-00001 Date of last issue: -
Date of first issue: 11/18/2014

Persistence and degradability

Ingredients:

Triethoxyoctylsilane:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 31.5 %
Method: OECD Test Guideline 301D
Remarks: Based on test data

Ethoxylated lauryl alcohol:

Biodegradability : Result: rapidly degradable
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 3.7 %
Exposure time: 28 d
Method: OECD Test Guideline 310

Stability in water : Degradation half life: 69.3 - 144 h (24.6 °C) pH: 7
Method: OECD Test Guideline 111

Methanol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 95 %
Exposure time: 20 d

Hexadecyltrimethyl ammonium chloride:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 93.5 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Bioaccumulative potential

Ingredients:

Triethoxyoctylsilane:

Partition coefficient: n-octanol/water : log Pow: 6.41
Method: OECD Test Guideline 117

Ethoxylated lauryl alcohol:

Bioaccumulation : Bioconcentration factor (BCF): < 500
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Partition coefficient: n-octanol/water : log Pow: 6.48 (25.1 °C)

Methanol:

Bioaccumulation : Species: Leuciscus idus (Golden orfe)

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0	Revision Date: 11/18/2014	MSDS Number: 773499-00001	Date of last issue: - Date of first issue: 11/18/2014
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Bioconcentration factor (BCF): < 10

Partition coefficient: n-octanol/water : log Pow: -0.77

Hexadecyltrimethyl ammonium chloride:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 33 - 160
Remarks: Based on data from similar materials

Mobility in soil

No data available

Other adverse effects

Ingredients:

Octamethylcyclotetrasiloxane:

Results of PBT and vPvB assessment : Remarks: Octamethylcyclotetrasiloxane (D4) meets the current REACH Annex XIII criteria for PBT and vPvB. In Canada, D4 has been assessed and deemed to meet the PiT criteria. However, D4 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Resource Conservation and Recovery Act (RCRA) : This product has been evaluated for RCRA characteristics and does not meet the criteria of hazardous waste if discarded in its purchased form.

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

Not regulated as a dangerous good

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0 Revision Date: 11/18/2014 MSDS Number: 773499-00001 Date of last issue: -
Date of first issue: 11/18/2014

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Methanol	67-56-1	5000	*
Acetaldehyde	75-07-0	1000	*
2-Butenal	4170-30-3	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
2-Butenal	4170-30-3	100	*
Vinyl acetate	108-05-4	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know

Dimethyl, methoxyphenyl siloxane with phenyl silsesquioxane methoxy-terminated Water	68957-04-0	30 - 50 %
	7732-18-5	30 - 50 %

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version 1.0 Revision Date: 11/18/2014 MSDS Number: 773499-00001 Date of last issue: -
Date of first issue: 11/18/2014

Triethoxyoctylsilane	2943-75-1	10 - 20 %
Dimethyl siloxane, hydroxy-terminated	70131-67-8	10 - 20 %
Methanol	67-56-1	0.1 - 1 %
Acetaldehyde	75-07-0	0 - 0.1 %

New Jersey Right To Know

Dimethyl, methoxyphenyl siloxane with phenyl silsesquioxane methoxy-terminated	68957-04-0	30 - 50 %
Water	7732-18-5	30 - 50 %
Triethoxyoctylsilane	2943-75-1	10 - 20 %
Dimethyl siloxane, hydroxy-terminated	70131-67-8	10 - 20 %
Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term	68554-54-1	1 - 5 %
Methanol	67-56-1	0.1 - 1 %

California Prop 65

	WARNING! This product contains a chemical known in the State of California to cause cancer.
Acetaldehyde	75-07-0
	WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.
Methanol	67-56-1

The ingredients of this product are reported in the following inventories:

NZIoC : All ingredients listed or exempt.

AICS : All ingredients listed or exempt.

IECSC : All ingredients listed or exempt.

KECI : All ingredients listed, exempt or notified.

PICCS : All ingredients listed or exempt.

DSL : This product contains one or more substances which are not on the Canadian Domestic Substances List (DSL). Import of this product into Canada has volume limitations. For volume limits please consult Dow Corning Regulatory Compliance.

REACH : Consult your local Dow Corning office.

TSCA : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

ENCS/ISHL : All components are listed on ENCS/ISHL or exempted from inventory listing.

Inventories

SAFETY DATA SHEET

PRICE AQUA SILANE 40

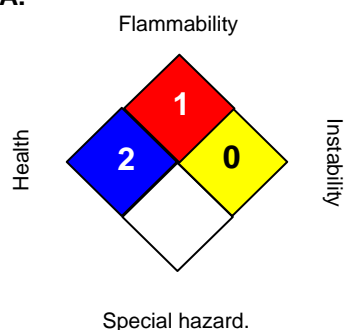
Version 1.0 Revision Date: 11/18/2014 MSDS Number: 773499-00001 Date of last issue: -
Date of first issue: 11/18/2014

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Full text of other abbreviations

- ACGIH : USA. ACGIH Threshold Limit Values (TLV)
- ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
- DCC OEL : Dow Corning Guide
- NIOSH REL : USA. NIOSH Recommended Exposure Limits
- OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
- ACGIH / TWA : 8-hour, time-weighted average
- ACGIH / STEL : Short-term exposure limit
- DCC OEL / TWA : Time weighted average
- NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
- NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
- OSHA Z-1 / TWA : 8-hour time weighted average

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Revision Date : 11/18/2014

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, un-

SAFETY DATA SHEET

PRICE AQUA SILANE 40

Version	Revision Date:	MSDS Number:	Date of last issue: -
1.0	11/18/2014	773499-00001	Date of first issue: 11/18/2014

less specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8