



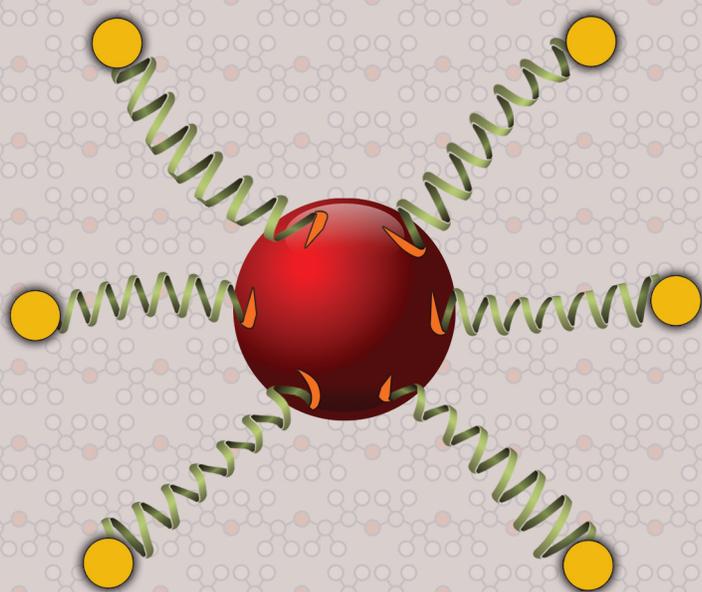
Polymerizable Terminal Group



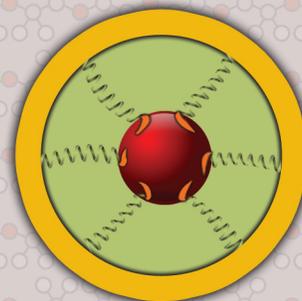
PEG Group



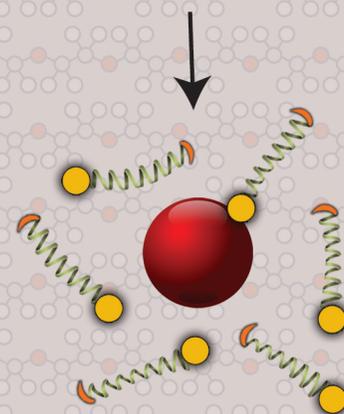
Bioactive Conjugation Point



PEGylated Biomolecule



Polymerizable Vesicle Formation



pH Responsive Degradation

PEGylation Reagents for:

Polymerizable Vesicles

Anti-Biofouling

Polymer Synthesis

PEGylation of Biomolecules:

- Improves Water Solubility
- Increases Biostability
- Reduces Renal Filtration



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Sales of all products listed are subject to the
published terms and conditions of Gelest, Inc.

Commercial Status - produced on a regular
basis for inventory

Developmental Status - available to support
development and commercialization



Reactive Polyethers

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PEGylation Reagents available from Gelest

Gelest is introducing a unique range of PEG reagents with dual functionality that enable new approaches to PEGylation for bioconjugates, reduction of surface biofouling and the formation of polymerizable vesicles for drug transport. These “first of a kind” materials are heterobifunctional materials with an amine at one terminus and at the other terminus a choice of two different species, one which can undergo radical reactions and one that can undergo hydrolytic condensation. In addition to reacting directly with appropriate functionality of drug or protein substrates, these materials have the potential to undergo polymerization.

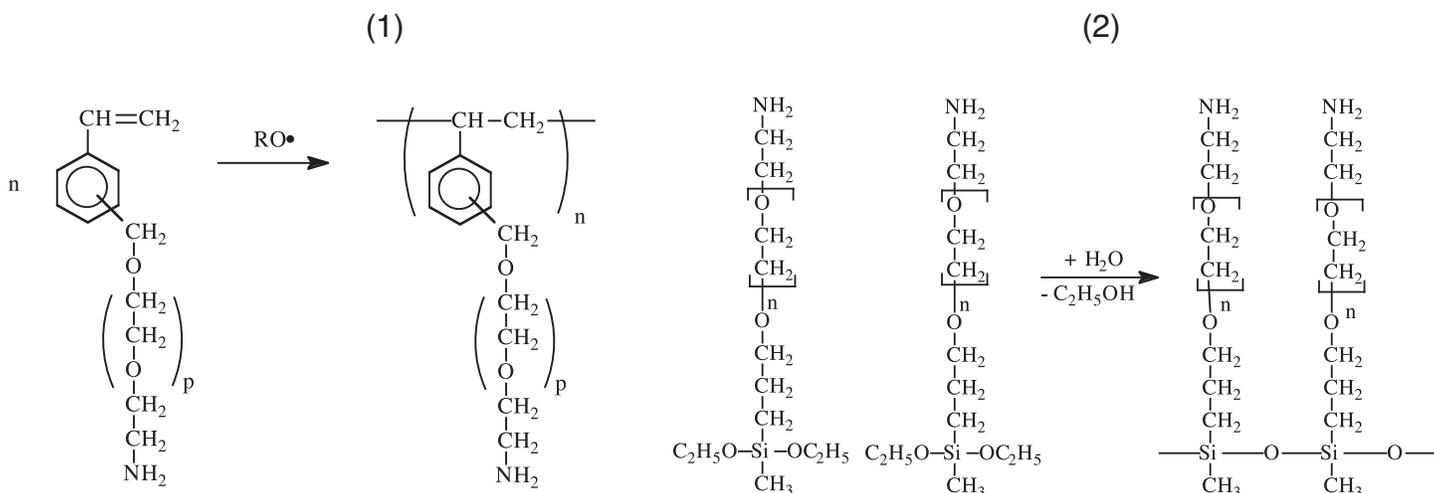
PEGylation, the formation of a conjugate of a protein, peptide, drug or other bioactive material by linking it with one or more poly(ethylene glycol) chains, in many instances imparts desirable properties to a biomolecule: increased solubility, resistance to metabolic degradation and reduced immunogenicity. The combination of amine and polymerizable functionality on a PEG provides new options for bioconjugate formation. Depending on the application, the conjugation can be at either terminus, leaving the remaining terminus to polymerize or act as a pH responsive endgroup. If the unsaturation is utilized as the conjugation point, the amine can undergo ionic interaction, hydrogen bonding or covalent bond formation with other species. The amine functional PEGs also create a pathway to pH responsive behavior.

The new polymerizable PEG materials have the potential to form polymerizable vesicles, stabilizing PEGylated drugs or act as comonomers for microencapsulated drug delivery. The polymerization can proceed by either free radical organic polymerization or hydrolysis-condensation siloxane polymerization.

Related PEG products included in this brochure include a broad range of discrete allyl terminated PEGs and Silacrown, analogs of crown ethers

The front cover motif depicts PEGylation of a bioactive substance and the benefits of the PEGylation with a PEG terminated by styryl and amine functionality as well as potential pathways for both stabilized vesicle formation by polymerization and pH responsive release of the bioactive.

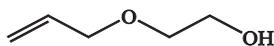
Exemplary reactions for heterobifunctional PEG polymerization by radical and hydrolytic mechanisms are shown below.



| Name | MW | bp °C/mm | D ₄ ²⁰ | n _D ²⁰ |
|------|----|----------|------------------------------|------------------------------|
|------|----|----------|------------------------------|------------------------------|

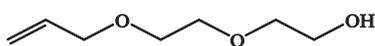
Allyl, Hydroxyl Terminated

ENEAO200 2-ALLYLOXYETHANOL



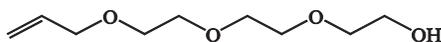
| | | | | |
|---|--------|---------------------------------------|-------|-------------|
| C ₅ H ₁₀ O ₂ | 102.13 | 159° | 0.955 | 1.436 |
| [111-45-5] | TSCA | Flashpoint: 66°C (151°F) | | |
| | | TOXICITY: oral rat, LD50: 3,050 mg/kg | | |
| | | | | 1kg \$64.00 |

ENEAO170 ALLYLOXY(DIETHYLENE OXIDE), 95%



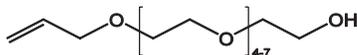
| | | | | |
|---|--------------------|---------------|---------------------------|---------------|
| C ₇ H ₁₄ O ₃ | 146.18 | 90° / 4 | 1.012 | 1.444 |
| [15075-50-0] | Viscosity: 4.7 cSt | HMIS: 3-2-0-X | Flashpoint: 102°C (216°F) | |
| | | | | 100g \$280.00 |

ENEAO385 ALLYLOXY(TRIETHYLENE OXIDE), tech-95



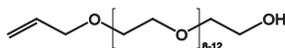
| | | | | |
|---|--------|---------------|-----------------------------|--------------|
| C ₉ H ₁₈ O ₄ | 190.24 | 115-8° / 2 | 1.026 | 1.4530 |
| [26150-05-0] | | HMIS: 2-2-0-X | Flashpoint: >110°C (>230°F) | |
| | | | | 25g \$325.00 |

ENEAO254 ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)



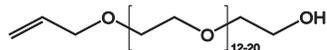
| | | | | |
|--------------|------|------|-----------------------------|--------------|
| [27274-31-3] | ~250 | TSCA | 1.059 | 1.458 |
| | | | Flashpoint: >110°C (>230°F) | |
| | | | | 25g \$120.00 |

ENEAO260 ALLYLOXY(POLYETHYLENE OXIDE) (8-12 EO)



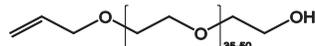
| | | | | |
|--------------|------|---------------|-------|-------------|
| [27274-31-3] | ~480 | TSCA | 1.089 | 1.465 |
| | | HMIS: 2-1-0-X | | 25g \$96.00 |

ENEAO261 ALLYLOXY(POLYETHYLENE OXIDE) (12-20 EO)



| | | | | |
|--------------|------|------|-----|--------------|
| [27274-31-3] | ~750 | TSCA | 1.1 | 25g \$110.00 |
|--------------|------|------|-----|--------------|

ENEAO264 ALLYLOXY(POLYETHYLENE OXIDE) (35-50 EO)



| | | | | |
|--------------|-------------|------|-----|--------------|
| [27274-31-3] | 1,500-2,000 | TSCA | 1.1 | 25g \$148.00 |
|--------------|-------------|------|-----|--------------|

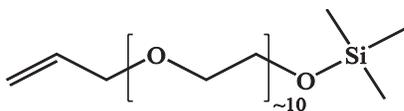
COMMERCIAL

| Name | MW | bp °C/mm | D ₄ ²⁰ | n _D ²⁰ |
|------|----|----------|------------------------------|------------------------------|
|------|----|----------|------------------------------|------------------------------|

Allyl, Hydroxyl Terminated, TMS Protected

SIA0479.0

O-ALLYLOXY(POLYETHYLENEOXY)TRIMETHYLSILANE, tech-95



470-560

1.040

1.4555

Viscosity: 20 - 25 cSt
Average of 10 -(OCH₂CH₂)- units
Hydrophilic monomer

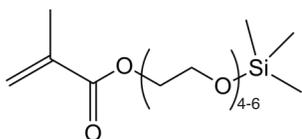
HMIS: 2-3-1-X

25g \$36.00

Methacrylate, Hydroxyl Terminated, TMS Protected

SIM6485.9

O-METHACRYLOXY(POLYETHYLENEOXY)TRIMETHYLSILANE, 95%



335-425

1.022

C₁₅H₃₀O₈Si, C₁₇H₃₄O₇Si, C₁₉H₃₈O₆Si

HMIS: 2-3-1-X

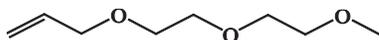
store <5°C

100g \$96.00

Allyl, Methyl Terminated

ENEA0180

ALLYLOXY(DIETHYLENE OXIDE), METHYL ETHER, 95%



C₉H₁₆O₃

160.21

40-60° / 0.5

0.916

[13752-97-1]

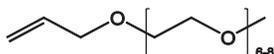
TSCA

25g \$96.00

ENEA0360

ALLYLOXY(POLYETHYLENE OXIDE), METHYL ETHER (6-8 EO)

mPEG-allyl



~350

>205°

1.03

1.452

Flashpoint: 119°C (246°F)

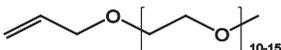
[27252-80-8]

TSCA

25g \$142.00

ENEA0365

ALLYLOXY(POLYETHYLENE OXIDE), METHYL ETHER (10-15 EO)



~550

>205°

1.04

1.457

Flashpoint: 136°C (277°F)

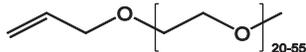
[27252-80-8]

TSCA

25g \$142.00

ENEA0366

ALLYLOXY(POLYETHYLENE OXIDE), METHYL ETHER (20-55 EO)



~1,000

1.05

[27252-80-8]

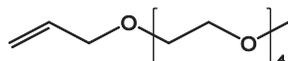
TSCA

HMIS: 2-1-0-X

25g \$196.00

ENEA0367

ALLYLOXY(TETRAETHYLENE OXIDE), METHYL ETHER, tech-90



C₁₂H₂₄O₅

248.32

140° / 1

1.003

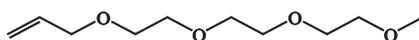
[96220-75-6]

25g \$146.00

ENEA0375

ALLYLOXY(TRIETHYLENE OXIDE), METHYL ETHER, 95%

2,5,8,11-Tetraoxatetradec-13-ene



C₁₀H₂₀O₄

204.26

75-85° / 0.5

0.957

Flashpoint: 80°C (176°F)

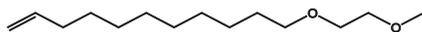
[19685-21-3]

HMIS: 2-2-0-X

25g \$124.00

COMMERCIAL

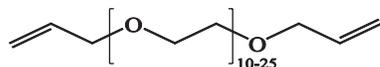
| Name | MW | bp °C/mm | D ₄ ²⁰ | n _D ²⁰ |
|------|----|----------|------------------------------|------------------------------|
|------|----|----------|------------------------------|------------------------------|



ENEM2050
11-(METHOXYETHOXY)UNDECENE

| | | | | |
|--|--------|---------------|-------|--------------|
| C ₁₄ H ₂₈ O ₂ | 228.36 | 100° / 4 | 0.854 | |
| [1319736-08-7] | | HMIS: 2-2-0-X | | 10g \$320.00 |

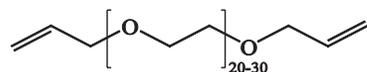
Diallyl Terminated



ENEP3655
POLY(ETHYLENE OXIDE) DIALLYL ETHER (10-25 EO)

Diallyloxy PEG

| | | | |
|----------------------|-----------------------------|---------------|--------------|
| 500-700 | 1.05 | 1.461 | |
| Viscosity: 25-30 cSt | Flashpoint: >110°C (>230°F) | | |
| [59788-01-1] | TSCA | HMIS: 2-1-0-X | 10g \$320.00 |



ENEP3660
POLY(ETHYLENE OXIDE) DIALLYL ETHER (20-30 EO)

Diallyloxy PEG

| | | | |
|--------------|------|---------------|---------------|
| ~1,000 | 1.09 | | |
| [59788-01-1] | TSCA | HMIS: 2-1-0-X | 100g \$160.00 |

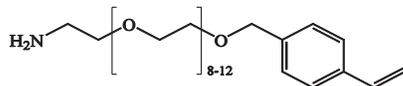
COMMERCIAL

Styryl, Amine Terminated

ENES4057
STYRYLMETHOXY(POLYETHYLENE OXIDE), AMINOETHYLTERMINATED (8-12 EO)

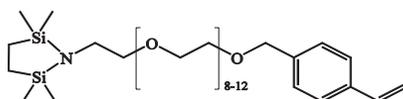
Poly(ethylene oxide), aminoethyl, vinylbenzyl terminated

| | | | |
|------------------------|-----------------------------|---------------|---------------|
| 400-600 | 1.509 | | |
| Viscosity: 175-225 cSt | Flashpoint: >110°C (>230°F) | | |
| Inhibited with BHT | | HMIS: 2-1-0-X | store <5°C |
| | | | 0.5g \$540.00 |



ENES4067
STYRYLMETHOXY(POLYETHYLENE OXIDE), 2,2,5,5-TETRAMETHYL-1-AZA-2,5-DISILACYCLOPENTANE TERMINATED (8-12 EO)

| | | | |
|------------------------|-------|---------------|---------------|
| 600-800 | 1.505 | | |
| Viscosity: 350-450 cSt | | HMIS: 2-1-0-X | store <5°C |
| Inhibited with BHT | | | 0.5g \$480.00 |

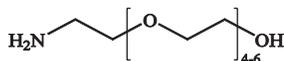


Amine, Hydroxyl Terminated

PEG0-AH05
POLY(ETHYLENE OXIDE), AMINOETHYL, HYDROXYLTERMINATED (4-6 EO)

O-(2-Aminoethyl)polyethylene glycol

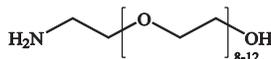
| | | | |
|------------------------|-----------------------------|-------|---------------|
| 200-300 | 1.15 | 1.474 | |
| Viscosity: 150-200 cSt | Flashpoint: >110°C (>230°F) | | |
| [32130-27-1] | HMIS: 2-1-0-X | | 1.0g \$440.00 |



PEG0-AH11
POLY(ETHYLENE OXIDE), AMINOETHYL, HYDROXYLTERMINATED (8-12 EO)

O-(2-Aminoethyl)polyethylene glycol

| | | | |
|------------------------|-----------------------------|-------|---------------|
| 350-550 | 1.13 | 1.141 | |
| Viscosity: 450-550 cSt | Flashpoint: >110°C (>230°F) | | |
| [32130-27-1] | HMIS: 2-1-0-X | | 1.0g \$440.00 |



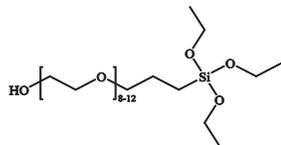
| Name | MW | bp °C/mm | D ₄ ²⁰ | n _D ²⁰ |
|------|----|----------|------------------------------|------------------------------|
|------|----|----------|------------------------------|------------------------------|

PEGylated Silanes

Tipped PEG Silanes

SIH6188.0

**[HYDROXY(POLYETHYLENEOXY)PROPYL]-
TRIETHOXSILANE, (8-12 EO), 50% in ethanol**



575-750

0.889

1.401

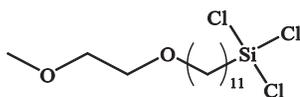
Flashpoint: 15°C (59°F)

HMIS: 2-4-1-X

25g \$88.00

SIM6491.5

11-(2-METHOXYETHOXY)UNDECYLTRICHLOROSILANE



C₁₄H₂₉Cl₃O₂Si

363.83

145-9° / 1.25

1.07

Forms self-assembled monolayers with "hydrophilic tips"

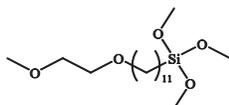
[943349-49-3]

HMIS: 3-2-1-X

5g \$82.00

SIM6491.7

11-(2-METHOXYETHOXY)UNDECYLTRIMETHOXSILANE



C₁₇H₃₈O₅Si

350.57

152-3° / 0.3

0.947

Flashpoint: >110°C (>230°F)

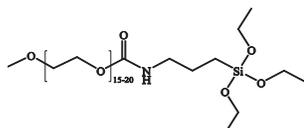
[1384163-86-3]

HMIS: 3-2-1-X

5g \$116.00

SIM6492.56

**O-[METHOXPOLY(ETHYLENE OXIDE)]-N-TRIETHOXSILYL-
PROPYL)CARBAMATE (15-20 EO)**



Methoxy-PEG-silane

800-1,200

1.1

Employed in PEGylation of surfaces to reduce biofouling

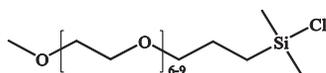
[65994-10-7]

HMIS: 1-1-1-X

10g \$124.00

SIM6492.57

**2-[METHOXPOLY(ETHYLENOXY)6-9PROPYL]-
DIMETHYLCHLOROSILANE, tech-90**



431-563

1.05

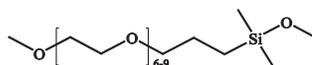
CH₃O(CH₂CH₂O)₆₋₉(CH₂)₃(CH₃)₂ClSi

HMIS: 3-2-1-X

10g \$92.00

SIM6492.58

**2-[METHOXPOLY(ETHYLENOXY)6-9PROPYL]-
DIMETHYLMETHOXSILANE, tech-90**



427-559

1.01

1.444²⁵

CH₃O(C₂H₄O)₆₋₉(CH₂)₃(CH₃)₂Si(OCH₃)

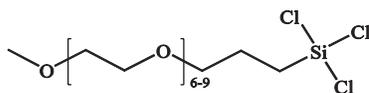
Flashpoint: >65°C (>150°F)

HMIS: 2-2-1-X

5g \$110.00

SIM6492.66

**2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]-
TRICHLOROSILANE, tech-90**



CH₃O(C₂H₄O)₆₋₉(CH₂)₃Cl₃Si

472-604

1.130

90% oligomers

Forms hydrophilic surfaces

[36493-41-1]

TSCA

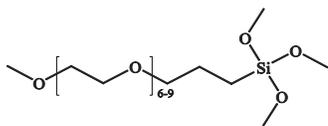
HMIS: 3-2-1-X

10g \$76.00

COMMERCIAL

| Name | MW | bp °C/mm | D ₄ ²⁰ | n _D ²⁰ |
|------|----|----------|------------------------------|------------------------------|
|------|----|----------|------------------------------|------------------------------|

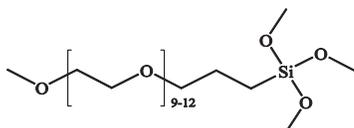
SIM6492.7
2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]-
TRIMETHOXYSILANE, tech-90



CH₃O(C₂H₄O)₆₋₉(CH₂)₃Si(OCH₃)₃ 1.076 1.403
 Viscosity: 29 cSt 459-591 Flashpoint: 88°C (190°F)
 Reduces non-specific binding of proteins

[65994-07-2] TSCA HMIS: 2-2-1-X 25g \$76.00

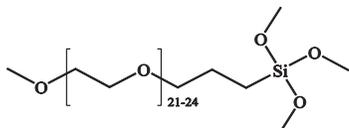
SIM6492.72
2-[METHOXY(POLYETHYLENEOXY)9-12PROPYL]-
TRIMETHOXYSILANE, tech-90



CH₃(C₂H₄O)₉₋₁₂(CH₂)₃OSi(OCH₃)₃ 1.071 1.451²⁵
 Flashpoint: 88°C (190°F)

[65994-07-2] TSCA HMIS: 2-2-1-X 25g \$76.00

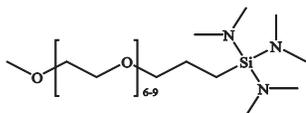
SIM6492.73
2-[METHOXY(POLYETHYLENEOXY)21-24PROPYL]-
TRIMETHOXYSILANE, tech-90



CH₃O(CH₂CH₂O)₂₁₋₂₄(CH₂)₃Si(OCH₃)₃ 1,120-1,250

[65994-07-2] HMIS: 2-2-1-X 1.0g \$84.00

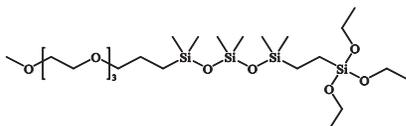
SIM6492.77
2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]-
TRIS(DIMETHYLAMINO)SILANE, tech-90



CH₃O(CH₂CH₂O)₆₋₉(CH₂)₃Si[N(CH₃)₂]₃ 500-855 1.01

For MOCVD of hydrophilic films HMIS: 3-2-1-X 10g \$124.00

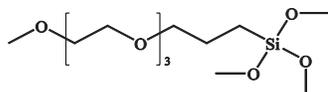
SIM6493.3
[METHOXYTRI(ETHYLENEOXY)PROPYL]HEXAMETHYL-
TRISILOXANYLETHYLTRIETHOXYSILANE, tech-95



C₂₄H₆₈O₉Si₄ 603.06
 Reduces protein adsorption on modified substrates

HMIS: 2-1-1-X 10g \$86.00

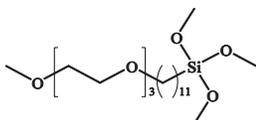
SIM6493.4
METHOXYTRI(ETHYLENEOXY)PROPYLTRIMETHOXYSILANE



C₁₃H₃₀O₇Si 326.46 140° / 0.2 1.163 1.4321

[132388-45-5] TSCA-L HMIS: 3-2-1-X 10g \$128.00

SIM6493.7
METHOXYTRI(ETHYLENEOXY)UNDECYLTRIMETHOXYSILANE

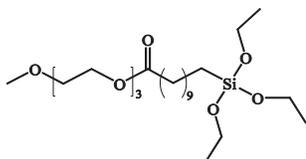


PEG3C11 Silane,
 3,3-Dimethoxy-2,15,18,21,24-pentaoxa-3-silapentacosane

C₂₁H₄₆O₇Si 438.68 215° / 0.5 0.977

[1858242-37-1] HMIS: 3-2-1-X 1.0g \$84.00

SIM6493.9
METHOXYTRI(ETHYLENEOXY)(11-TRIETHOXYSILYL)-
UNDECANOATE, tech-95



C₂₄H₅₀O₈Si 494.73 0.952 1.4513

Hydrophilic-tipped silane

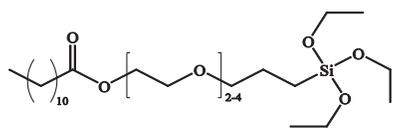
HMIS: 2-1-0-X 2.5g \$186.00

COMMERCIAL

COMMERCIAL

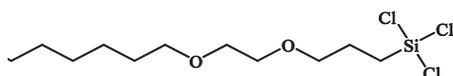
| Name | MW | bp °C/mm | D ₄ ²⁰ | n _D ²⁰ |
|------|----|----------|------------------------------|------------------------------|
|------|----|----------|------------------------------|------------------------------|

Embedded PEG Silanes

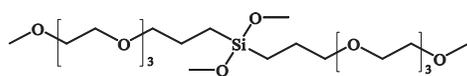


| | | | | |
|---|--------|---------------|-------|----------------------|
| SIT8186.3 TRIETHOXYSILYLPROPOXY(POLYETHYLENEOXY)- DODECANOATE, tech-95 | | | | |
| C ₂₇ H ₅₆ O ₈ Si | 536.82 | | 0.977 | 1.4479 ²⁵ |
| Provides embedded hydrophilicity with oleophilic compatibility | | | | |
| [1041420-54-5] | TSCA-L | HMIS: 2-1-1-X | | 25g \$48.00 |

COMMERCIAL

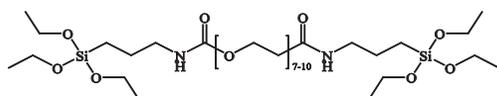


| | | | | |
|--|--------|---------------|-------|--------------|
| SID4472.0 4,7-DIOXAOCYLADECYLTRICHLOROSILANE, 95% | | | | |
| C ₁₆ H ₃₃ Cl ₃ O ₂ Si | 391.88 | 165° / 0.7 | 1.028 | 1.4523 |
| Forms C ₁₈ bonded phases with embedded hydrophilicity | | | | |
| | | HMIS: 3-1-1-X | | 10g \$185.00 |



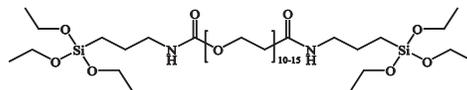
| | | | | |
|--|--------|---------------|-------|---------------|
| SIB1543.0 BIS[METHOXY(TRIETHYLENEOXY)PROPYL]DIMETHOXYSILANE | | | | |
| C ₂₂ H ₄₈ O ₁₀ Si | 500.70 | | 1.060 | 1.4158 |
| | | HMIS: 3-2-1-X | | 1 0g \$320.00 |

Dipodal PEG Silanes

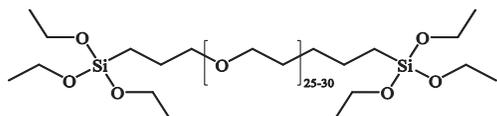


| | | | | |
|--|-----------|---------------|-------|-------------|
| SIB1824.81 N,N'-BIS-[(3-TRIETHOXYSILYLPROPYL)AMINOCARBONYL]- POLYETHYLENE OXIDE (7-10 EO) | | | | |
| | 700-1,000 | | 1.085 | |
| Dipodal hydrophilic silane | | | | |
| [178884-91-8] | TSCA | HMIS: 1-1-1-X | | 25g \$24.00 |

COMMERCIAL

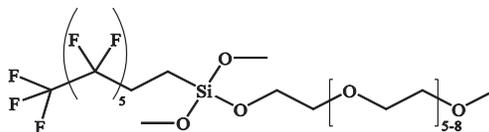


| | | | | |
|---|---------------|---------------|-------|----------------------|
| SIB1824.82 N,N'-BIS-[(3-TRIETHOXYSILYLPROPYL)AMINOCARBONYL]POLYETHYL Ureasil | | | | |
| | 1,000 - 1,200 | | 1.088 | 1.4583 ²⁵ |
| Viscosity: 300-350 cSt Dipodal hydrophilic silane Antifog coatings can be formed from combinations of polyalkylene oxide functional silanes and film-forming hydrophilic silanes | | | | |
| [178884-91-8] | TSCA | HMIS: 1-1-1-X | | 25g \$56.00 |



| | | | | |
|--|---------------|---------------|--|-------------|
| SIB1824.84 BIS(3-TRIETHOXYSILYLPROPYL)POLYETHYLENE OXIDE (25-30 EO) | | | | |
| | 1,400 - 1,600 | | | |
| Hydrolytically stable hydrophilic silane | | | | |
| [666829-33-0] | | HMIS: 2-1-1-X | | 25g \$84.00 |

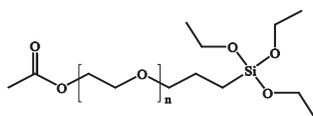
Fluorinated PEG Silanes



| | | | | |
|---|---------|---------------|------|---------------|
| SIT8171.2 (TRIDECAFLUORO-1,1,2,2-TETRAHYDROOCTYL)-[METHOXPOLY- (ETHYLENEOXY)]PROPYLDIMETHOXYSILANE (6-9 EO), tech-95 | | | | |
| | 775-910 | | 1.24 | 1.397 |
| [1936462-94-0] | | HMIS: 2-1-0-X | | 0.5g \$520.00 |

| Name | MW | bp °C/mm | D ₄ ²⁰ | n _D ²⁰ |
|------|----|----------|------------------------------|------------------------------|
|------|----|----------|------------------------------|------------------------------|

Functional PEG Silanes



SIA0078.0

2-[(ACETOXY(POLYETHYLENEOXY)PROPYL)]TRIETHOXYSILANE, 95%

500 - 700

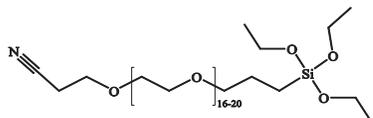
1.071

1.4527

Viscosity: 50 cSt

HMIS: 2-1-1-X

25g \$78.00



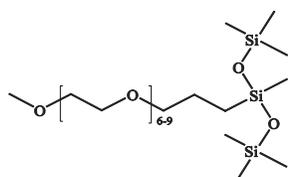
SIA0766.0

AZIDOETHYLPOLY(ETHYLENEOXY)PROPYLTRIETHOXYSILANE (16-20 EO)

[2079045-60-4]

0.5g \$480.00

PEGylated Silicones (Trisiloxanes)



SIM6492.6

2-[METHOXY(POLYETHYLENEOXY)6-9PROPYL]-HEPTAMETHYLTRISILOXANE, tech-90

CH₃O(CH₂CH₂O)₆₋₉(CH₂)₃(CH₃)₂[OSi(CH₃)₂]₂Si

559-691

1.007

1.4416

Viscosity: 22 cSt

Flashpoint: 116°C (241°F)

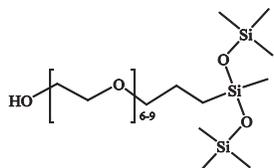
"Super-wetter" Surface tension of 0.1% aqueous solution: 21-22 mN/m

[27306-78-1]

TSCA

HMIS: 2-1-0-X

100g \$19.00



SIH6185.0

3-[HYDROXY(POLYETHYLENEOXY)PROPYL]-HEPTAMETHYLTRISILOXANE, 90%

HO(CH₂CH₂O)₆₋₉(CH₂)₃(CH₃)₂[OSi(CH₃)₂]₂Si

550-650

1.02

1.4463²⁵

Viscosity: 35 cSt

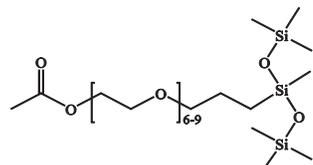
Flashpoint: 118°C (244°F)

[67674-67-3]

TSCA

HMIS: 1-1-0-X

25g \$19.00



SIA0075.0

3-{2-[ACETOXY(POLYETHYLENEOXY)PROPYL]}-HEPTAMETHYLTRISILOXANE, tech-95

600-750

1.032

1.4461

Viscosity: 30 cSt

Flashpoint: 79°C (174°F)

Surfactant

TOXICITY: oral rat, LD50: >2,000 mg/kg

[125997-17-3]

TSCA

HMIS: 2-1-0-X

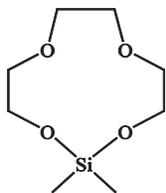
25g \$22.00

COMMERCIAL

| Name | MW | bp °C/mm | D ₄ ²⁰ | n _D ²⁰ |
|------|----|----------|------------------------------|------------------------------|
|------|----|----------|------------------------------|------------------------------|

Related Products

Silacrowns



SID4220.4

DIMETHYLSILA-11-CROWN-4, 95%

1,1-Dimethyl-1,3,6,9,11-tetraoxa-1-silacycloundecane

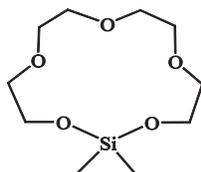
C₈H₁₈O₄Si 206.31 96° / 9 1.07 1.4487

Flashpoint: 77°C (171°F)

[18339-94-1]

HMIS: 3-2-0-X

25g \$52.00



SID4220.5

DIMETHYLSILA-14-CROWN-5, 95%

2,2-Dimethyl-1,3,6,9,12-pentaoxa-2-silacyclotetradecane

C₁₀H₂₂O₅Si 250.37 125-9° / 0.5 1.08 1.4522

Potential Li ion electrolyte

Flashpoint: >110°C (>230°F)

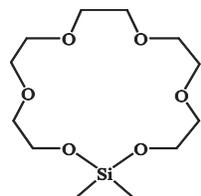
TOXICITY: oral rat, LD50: 9,900 mg/kg

[70851-49-9]

TSCA

HMIS: 2-1-0-X

25g \$55.00



SID4220.6

DIMETHYLSILA-17-CROWN-6, 90%

C₁₂H₂₆O₆Si 294.42 168-70° / 0.3 1.09 1.457

Flashpoint: >110°C (>230°F)

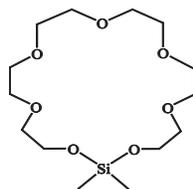
Contains other homologs

[83890-22-6]

TSCA

HMIS: 2-1-0-X

10g \$52.00



SID4220.7

DIMETHYLSILA-20-CROWN-7, 90%

C₁₄H₃₀O₇Si 338.47 274-7° / 1 1.092

Flashpoint: >110°C (>230°F)

Contains other homologs

Ionophore selective for K⁺ ions

Inhibits ion mobility in electrical resins

[83890-23-7]

HMIS: 2-1-0-X

5g \$69.00

SID4221.0

DIMETHYLSILACROWNS, mixed

C₁₂H₂₆O₆Si 250-338 125-295° / 0.3 1.09

Flashpoint: >110°C (>230°F)

Contains: 70-75% dimethylsila-17-crown-6, 10-20% dimethylsila-14-crown-5, 10-20% dimethylsila-20-crown-7

Low cost phase transfer catalyst

[83890-22-6] / [83890-23-7] TSCA

HMIS: 2-1-0-X

25g \$36.00

COMMERCIAL

COMMERCIAL

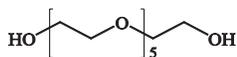
| Name | MW | bp °C/mm | D ₄ ²⁰ | n _D ²⁰ |
|------|----|----------|------------------------------|------------------------------|
|------|----|----------|------------------------------|------------------------------|

Glycol Oligomers

PEG0-HH06

HEXAETHYLENEGLYCOL

3,6,9,12,15-Pentaoxaheptadecane-1,17-diol



C₁₂H₂₆O₇

282.33

200-202° / 2

1.127

1.464

[2615-15-8]

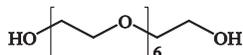
HMIS: 3-2-1-X

25g \$180.00

PEG0-HH07

HEPTAETHYLENEGLYCOL

3,6,9,12,15,18-Hexaoxaicosane-1,20-diol



C₁₄H₃₀O₈

326.38

244° / 0.6

1.14

1.457

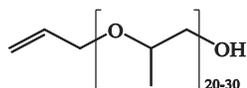
[5617-32-3]

HMIS: 3-1-1-X

10g \$190.00

ENEP3810

POLY(PROPYLENE OXIDE) MONOALLYL ETHER (20-30 PO)



~1,500

0.99

Viscosity: 150-200 cSt

Flashpoint: 264°C(507°F)

[9042-19-7]

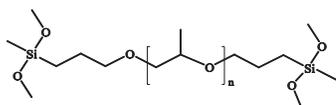
TSCA

HMIS: 1-1-0-X

100g \$280.00

SIB1660.0

BIS[(3-METHYLDIMETHOXYSILYL)PROPYL]POLYPROPYLENE OXIDE



600-800

1.00

1.452²⁵

Viscosity: 6,000-10,000 cSt

Flashpoint: >110°C (>230°F)

With tin catalyst forms moisture-cross-linkable resins; hydrophilic dipodal silane

[75009-88-0]

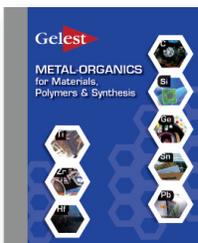
TSCA

HMIS: 3-1-1-X

100g \$19.00

COMMERCIAL

Related Gelest Product Literature



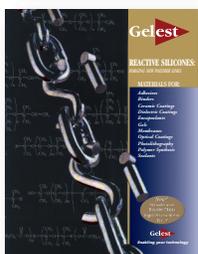
Metal-Organics for Material & Polymer Technology

The latest Gelest handbook provides many new compounds with applications on optical, microelectronic, diagnostic and materials applications. Highly referenced listings and device applications are presented.



Silicon Compounds: Silanes and Silicones

Detailed chemical properties and reference articles for compounds. The Handbook of silane and silicone chemistry includes scholarly reviews as well as detailed information on various applications.



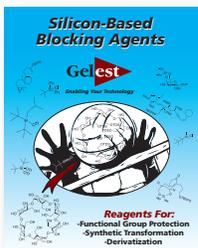
Reactive Silicones: Forging New Polymer Links

The brochure describes reactive silicones that can be formulated into coatings, membranes, cured rubbers and adhesives for mechanical, optical, electronic and ceramic applications. Information on reactions and cures of silicones as well as physical properties shortens product development time for chemists and engineers.



Silicone Fluids - Stable, Inert Media

Design and Engineering properties for conventional silicone fluids as well as thermal, fluorosilicone, hydrophilic and low temperature grades are presented in selection guide. The brochure provides data on thermal, rheological, electrical, mechanical and optical properties for silicones. Silicone fluids are available in viscosities ranging from 0.65 to 2,500,000 cSt.



Silicon-Based Blocking Agents

These silicon reagents are used for functional group protection, synthesis and derivatization. The 52 page brochure presents detailed application information on silylation reagents for pharmaceutical synthesis and analysis. Detailed descriptions are presented on selectivity for reactions, resistance to chemical transformations and selective de-blocking conditions. Over 1200 references are provided.



Silane Coupling Agents

Silane coupling agents enhance adhesion, increase mechanical properties of composites, improve dispersion of pigments and fillers and immobilize catalysts and biomaterials. This brochure describes chemistry, techniques, applications and physical properties of silane coupling agents.



Enabling Your Technology

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