

1 Identification

- **Product identifier**
- **Trade name:** 43110 Composite Adhesive and Repair
- **Article number:** 43110
- **Application of the substance / the mixture** Coating
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SEM Products Inc.
1685 Overview Drive
Rock Hill, SC 29730
803 207 8225
- **Information department:**
cust_care@semproducts.com : SEM Products, Inc. 1685 Overview Dr. Rock Hill, SC 29730 : phone 1-800-831-1122, M - TH 7am - 4pm EDT
- **Emergency telephone number:** CHEMTREC 1-800-424-9300

2 Hazard identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Germ Cell Mutagenicity - Category 2

Reproductive Toxicity - Category 2

Specific Target Organ Toxicity - Repeated Exposure - Category 2

H341 Suspected of causing genetic defects.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Skin Corrosion - Category 1B

Serious Eye Damage - Category 1

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.



GHS07

Acute Toxicity (Oral) - Category 4

Skin Sensitizer - Category 1

Specific Target Organ Toxicity - Single Exposure - Category 3

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Flammable Liquids - Category 4

H227 Combustible liquid.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)



Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 1)

· **Hazard pictograms**



GHS05 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

phenol
bisphenolA(chloro)oxirane polymer
4-nonylphenol, branched
Benzyl alcohol
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane
2,2'-iminodiethylamine
3,6-diazaoctanethylenediamin
(DIMETHYLAMINO)METHYLPHENOL
N-(3-(trimethoxysilyl)propyl)ethylenediamine

· **Hazard statements**

H227 Combustible liquid.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H361 Suspected of damaging fertility or the unborn child.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P310 Immediately call a POISON CENTER/doctor.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (see on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

(Contd. on page 3)



Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 2)

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = *3

Fire = 2

Reactivity = 0

3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:**

Mixture: consisting of the following components.
 Weight percentages

· **Dangerous components:**

25068-38-6	bisphenolA(chloro)oxirane polymer	10-30% w/w
	Talc	10-30% w/w
65997-17-3	Glass	5-10% w/w
108-95-2	phenol	3-7% w/w
	Amine proprietary	
68909-14-8	Modified diglycidal ether	1-5% w/w
67762-90-7	FUMED SILICA	1-5% w/w
100-51-6	Benzyl alcohol	1-5% w/w
84852-15-3	4-nonylphenol, branched	1-5% w/w
17557-23-2	1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	1-5% w/w
111-40-0	2,2'-iminodiethylamine	0.5-1.5% w/w
112-24-3	3,6-diazaoctanethylenediamin	≤ 1% w/w
25338-55-0	(DIMETHYLAMINO)METHYLPHENOL	≤ 1% w/w
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	≤ 1% w/w

4 First aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

(Contd. on page 4)



Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 3)

- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Immediately call a doctor.
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
No special measures required.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

(Contd. on page 5)



Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 4)

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

108-95-2 phenol

EL Long-term value: 5 ppm
Skin

EV Long-term value: 19 mg/m³, 5 ppm
Skin

111-40-0 2,2'-iminodiethylamine

EL Long-term value: 1 ppm
Skin; S

EV Long-term value: 4 mg/m³, 1 ppm
Skin

112-24-3 3,6-diazaoctanethylenediamin

EV Long-term value: 3 mg/m³, 0.5 ppm
Skin

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 6)



Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 5)

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:

Liquid

Color:

According to product specification

· **Odor:**

Characteristic

· **Odor threshold:**

Not determined.

· **pH-value:**

Not determined.

· **Change in condition**

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

149 °C

· **Flash point:**

82 °C

· **Flammability (solid, gaseous):**

Not applicable.

· **Ignition temperature:**

595 °C

· **Decomposition temperature:**

Not determined.

· **Auto igniting:**

Product is not selfigniting.

· **Danger of explosion:**

In use, may form flammable/explosive vapour-air mixture.

· **Explosion limits:**

Lower:

Not determined.

Upper:

Not determined.

· **Vapor pressure:**

Not determined.

· **Density at 20 °C:**

1.39421 g/cm³

· **Relative density**

Not determined.

· **Vapor density**

Not determined.

· **Evaporation rate**

Not determined.

· **Solubility in / Miscibility with**

Water:

Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic:

Not determined.

Kinematic:

Not determined.

(Contd. on page 7)



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 6)

· Solvent content:	
Organic solvents:	0.0 %
· Solids content:	
Other information	99.9 % No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

108-95-2 phenol

Oral	LD50	317 mg/kg (rat)
Dermal	LD50	850 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:**
Strong caustic effect.
Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful
Corrosive
Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

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

	Talc	3
108-95-2	phenol	3
13463-67-7	titanium dioxide	2B
64-17-5	ethanol	1
7631-86-9	silicon dioxide, chemically prepared	3

(Contd. on page 8)

CA



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 7)

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|----------------------------------|--|
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN1760 |
| · UN proper shipping name | |
| · DOT | Corrosive liquids, n.o.s. (3-aminopropyltriethoxysilane, Diethylenetriamine) |
| · TDG | 1760 Corrosive liquids, n.o.s. (3-aminopropyltriethoxysilane, Diethylenetriamine), ENVIRONMENTALLY HAZARDOUS |
| · IMDG | CORROSIVE LIQUID, N.O.S. (3-aminopropyltriethoxysilane, DIETHYLENETRIAMINE, 4-nonylphenol, branched) |
| · IATA | CORROSIVE LIQUID, N.O.S. (3-aminopropyltriethoxysilane, DIETHYLENETRIAMINE) |

(Contd. on page 9)

CA

Safety Data Sheet
according to HPR, Schedule 1



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 8)

· **Transport hazard class(es)**· **DOT**· **Class**

8 Corrosive substances

· **Label**

8

· **TDG, IMDG**· **Class**

8 Corrosive substances

· **Label**

8

· **IATA**· **Class**

8 Corrosive substances

· **Label**

8

· **Packing group**· **DOT, TDG, IMDG, IATA**

III

· **Environmental hazards:**

Product contains environmentally hazardous substances: 4-nonylphenol, branched

· **Marine pollutant:**

Yes

Symbol (fish and tree)

· **Special marking (TDG):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Corrosive substances

· **EMS Number:**

F-A,S-B

· **Segregation groups**

Alkalis

· **Stowage Category**

A

· **Stowage Code**

SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **DOT**· **Quantity limitations**

On passenger aircraft/rail: 5 L

On cargo aircraft only: 60 L

· **TDG**· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

(Contd. on page 10)



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 9)

· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1760 CORROSIVE LIQUIDS, N.O.S. (3-AMINOPROPYLTRIETHOXYSILANE, DIETHYLENETRIAMINE), 8, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

108-95-2	phenol
107-15-3	ethylenediamine

· **Section 313 (Specific toxic chemical listings):**

	Talc
108-95-2	phenol
68909-14-8	Modified diglycidal ether
84852-15-3	4-nonylphenol, branched
25338-55-0	(DIMETHYLAMINO)METHYLPHENOL
107-21-1	ethanediol
67-56-1	methanol

· **TSCA (Toxic Substances Control Act):**

25068-38-6	bisphenolA(chloro)oxirane polymer
	Talc
65997-17-3	Glass
108-95-2	phenol
68082-29-1	FATTY ACID POLYMERS
68909-14-8	Modified diglycidal ether
67762-90-7	FUMED SILICA
100-51-6	Benzyl alcohol
13463-67-7	titanium dioxide
84852-15-3	4-nonylphenol, branched
17557-23-2	1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane
111-40-0	2,2'-iminodiethylamine
112-24-3	3,6-diazaoctanethylenediamin
25338-55-0	(DIMETHYLAMINO)METHYLPHENOL
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane
919-30-2	3-aminopropyltriethoxysilane
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine

(Contd. on page 11)

CA

Safety Data Sheet
according to HPR, Schedule 1



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 10)

107-21-1	ethanediol
67-56-1	methanol
107-15-3	ethylenediamine
64-17-5	ethanol
21645-51-2	aluminium hydroxide
7631-86-9	silicon dioxide, chemically prepared

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

25068-38-6	bisphenolA(chloro)oxirane polymer
	Talc
65997-17-3	Glass
108-95-2	phenol
68082-29-1	FATTY ACID POLYMERS
68909-14-8	Modified diglycidal ether
67762-90-7	FUMED SILICA
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1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine
107-21-1	ethanediol
67-56-1	methanol
107-15-3	ethylenediamine
64-17-5	ethanol
21645-51-2	aluminium hydroxide
7631-86-9	silicon dioxide, chemically prepared

· **Canadian Ingredient Disclosure list (limit 0.1%)**

111-40-0	2,2'-iminodiethylamine
112-24-3	3,6-diazaoctanethylenediamin

· **Canadian Ingredient Disclosure list (limit 1%)**

108-95-2	phenol
100-51-6	Benzyl alcohol

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 12)

CA



Trade name: 43110 Composite Adhesive and Repair

(Contd. of page 11)

· **Hazard pictograms**



GHS05 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

phenol
bisphenolA(chloro)oxirane polymer
4-nonylphenol, branched
Benzyl alcohol
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane
2,2'-iminodiethylamine
3,6-diazaoctanethylenediamin
(DIMETHYLAMINO)METHYLPHENOL
N-(3-(trimethoxysilyl)propyl)ethylenediamine

· **Hazard statements**

H227 Combustible liquid.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
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H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P310 Immediately call a POISON CENTER/doctor.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (see on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

(Contd. on page 13)

Safety Data Sheet

according to HPR, Schedule 1



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(Contd. of page 12)

- P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environment protection department.
- **Contact:** Steve Gaver (sgaver@semproducts.com)
- **Date of preparation / last revision** 06/20/2017 / 7
- **Abbreviations and acronyms:**
 - ICAO: International Civil Aviation Organisation
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - NFPA: National Fire Protection Association (USA)
 - HMIS: Hazardous Materials Identification System (USA)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
- *** Data compared to the previous version altered.**

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