

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	DAPCO™ 2100 Primerless Firewall Sealant, Form A (mixed)
Product Description:	Modified silicone resin
Synonyms:	None
Chemical Family:	Modified silicone resin
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Intended/Recommended Use:	Engineered material sealant

CYTEC INDUSTRIES INC., 504 CARNEGIE CENTER, PRINCETON, NEW JERSEY 08540, USA

For Product and all Non-Emergency Information call 1-800/652-6013. Outside the USA and Canada call 1-973/357-3193.

EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:

Asia Pacific:

Australia - +61 2 8014 4558 (Carechem24)

China (PRC) - +86 0532 83889090 (NRCC) +86 512 8090 3042 (Carechem24)

New Guinea - +61 2 8014 4558 (Carechem24)

New Zealand - +64 9 929 1483 (Carechem24)

India, Japan, Korea, Malaysia, Thailand - +65 3158 1074 (Carechem24 Singapore)

India (Hindi Speaking Only) - +65 3158 1198 or 000800 100 7479 (Carechem24 Singapore)

Canada: 800 424 9300 (Within US,Canada) +1 (703) 527-3887 (International) (CHEMTREC)

Europe/Africa/Middle East (Carechem24 UK):

Europe, Middle East, Africa, Israel - +44 1235 239 670

(Arabic speaking countries) - +44 1235 239 671

Latin America:

Brazil - +55 11 3197 5891 (Carechem24)

Chile - +56 2 2582 9336 (Carechem24)

All Others - +44 1235 239 670 (Carechem24 UK)

USA: 800 424 9300 (Within US,Canada) +1 (703) 527-3887 (International) (CHEMTREC)

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2. HAZARDS IDENTIFICATION

GHS Classification

Specific Target Organ Toxicity - Repeated Exposure Hazard Category 2

Serious Eye Damage / Eye Irritation Hazard Category 1

Skin Sensitizer Hazard Category 1B

LABEL ELEMENTS



Signal Word

Danger

Hazard Statements

May cause damage to organs through prolonged or repeated exposure
Causes serious eye damage
May cause an allergic skin reaction

Precautionary Statements

Do not breathe dust/fume/gas/mist/vapours/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
Contaminated work clothing should not be allowed out of the workplace.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water.
Specific treatment (see supplemental first aid instructions on this label).
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local and national regulations.

Hazards Not Otherwise Classified (HNOC), Other Hazards

Use mechanical exhaust ventilation when heat-curing material.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance, Mixture or Article? Mixture

HAZARDOUS INGREDIENTS

Component / CAS No.	%	GHS Classification	Carcinogen
calcium carbonate 471-34-1	30-50	Not Classified	-
Vinyl silane -	1-5	Flam. Liq. 4 (H227) Skin Sens. 1B (H317) Eye Dam. 1 (H318) STOT RE 2 (H373) Aquatic Acute 3 (H402)	-
Trimethylated silica 68909-20-6	1-5	Not Classified	-
Titanium Dioxide 13463-67-7	1-5	Not Classified	IARC 2B
Frits 65997-18-4	0.1-1	Aquatic Acute 3 (H402) Aquatic Chronic 3 (H412)	OSHA(as Arsenic inorganic compounds) OSHA(as Cadmium compounds)

The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

4. FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes. Obtain medical attention immediately.

Skin Contact:

Wash immediately with plenty of water and soap. Remove contaminated clothing and shoes without delay. Obtain medical attention. Do not reuse contaminated clothing without laundering. Destroy or thoroughly clean shoes before reuse.

Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

None known

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDS

Notes To Physician:

Formaldehyde is not a component of this product, however, heating to temperatures above 150 C in the presence of air may result in the release of formaldehyde. The International Agency for Research on Cancer (IARC) has classified formaldehyde as a Group 1 (known) human carcinogen. Formaldehyde is irritating to the eyes, nose, throat and skin and is a dermal sensitizer.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Use water spray or fog, carbon dioxide or dry chemical.

Extinguishing Media to Avoid:

full water jet

Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

Special Hazards:

None known

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. Refer to Section 8 (Exposure Controls/Personal Protection) for appropriate personal protective equipment.

Methods For Cleaning Up:

Sweep up into containers for disposal. Flush spill area with water.

References to other sections:

See Sections 8 and 13 for additional information.

7. HANDLING AND STORAGE

HANDLING

Precautions: Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves and eye/face protection.

Special Handling Statements: Heating to temperatures above 150 C (302 F) in the presence of air may result in the release of formaldehyde. Formaldehyde is a known animal carcinogen and is considered to be probably carcinogenic to humans by the International Agency for Research on Cancer and the National Toxicology Program. Formaldehyde is irritating to the eyes, nose, throat and skin and is a dermal sensitizer. The permissible exposure limit for formaldehyde should not be exceeded. Provide good ventilation of working area (local exhaust ventilation if necessary).

STORAGE

Store in accordance with local, state, and federal regulations.

Storage Temperature: Store at <27 °C 80 °F

Reason: Quality.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:

Utilize a closed system process where feasible. Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure when spraying or curing at elevated temperatures.

Respiratory Protection:

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

Eye Protection:

Prevent eye and skin contact. Provide eye wash fountain and safety shower in close proximity to points of potential exposure. Wear eye/face protection such as chemical splash proof goggles or face shield.

Skin Protection:

Prevent contamination of skin or clothing when removing protective equipment. Barrier creams may be used in conjunction with the gloves to provide additional skin protection. Wear impermeable gloves and suitable protective clothing.

Hand Protection:

Nitrile or fluorinated rubber gloves. Consider the porosity and elasticity data of the glove manufacturer and the specific conditions in the work place. Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Additional Advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. It is recommended that a shower be taken after completion of workshift especially if significant contact has occurred. Work clothing should then be laundered prior to reuse. Street clothing should be stored separately from work clothing and protective equipment. Work clothing and shoes should not be taken home.

Exposure Limit(s)

The below constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

13463-67-7 Titanium Dioxide

OSHA (PEL): 15 mg/m³ total dust (TWA)
ACGIH (TLV): 10 mg/m³ (TWA)
Other Value: Not established

471-34-1 calcium carbonate

OSHA (PEL): 15 mg/m³ total dust (TWA)
5 mg/m³ respirable fraction (TWA)
ACGIH (TLV): Not established
Other Value: Not established

65997-18-4 Frits

OSHA (PEL): 10 µg/m³ (TWA)(as Arsenic inorganic compounds)
50 µg/m³ (TWA)(as Lead inorganic compounds)
0.5 mg/m³ (TWA)(as Antimony compounds)
5 mg/m³ (TWA)(as Zirconium compounds)
5 mg/m³ (Ceiling)(as Manganese compounds)
10 µg/m³ TWA(as Arsenic inorganic compounds)
5 µg/m³ Action Level
30 µg/m³ Action Level(as Lead inorganic compounds)
50 µg/m³ TWA
5 µg/m³ TWA(as Cadmium compounds)
2.5 µg/m³ Action Level
ACGIH (TLV): 10 mg/m³ Zr (STEL)(as Zirconium compounds)
0.01 mg/m³ As (TWA)(as Arsenic inorganic compounds)
0.05 mg/m³ Pb (TWA)(as Lead inorganic compounds)
0.01 mg/m³ Cd (TWA)(as Cadmium compounds)
0.002 mg/m³ respirable particulate matter Cd (TWA)
0.5 mg/m³ Sb (TWA)(as Antimony compounds)
1 mg/m³ dust and mist Cu (TWA)(as Copper compounds)
5 mg/m³ Zr (TWA)(as Zirconium compounds)
0.02 mg/m³ respirable particulate matter Mn (TWA)(as Manganese inorganic compounds)
0.1 mg/m³ inhalable particulate matter Mn (TWA)
Other Value: Not established

68909-20-6 Trimethylated silica

OSHA (PEL): 5 mg/m³ ceiling (Dow Corning)
ACGIH (TLV): Not established
Other Value: 5 mg/m³ ceiling (Dow Corning)

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: gray
Appearance: paste
Odor: mild
Boiling Point: Not available
Melting Point: Not available
Vapor Pressure: Not available
Specific Gravity/Density: 1.45
Vapor Density: Not available
Percent Volatile (% by wt.): Not available
pH: Not available
Saturation In Air (% By Vol.): Not available
Evaporation Rate: Not available
Solubility In Water: Reacts with water

9. PHYSICAL AND CHEMICAL PROPERTIES

Volatile Organic Content:	Not available
Flash Point:	Not applicable
Flammability (solid, gas):	Not available
Flammable Limits (% By Vol):	Not available
Autoignition (Self) Temperature:	Not available
Decomposition Temperature:	Not available
Partition coefficient (n-octanol/water):	Not available
Odor Threshold:	Not available
Viscosity (Kinematic):	Not available

DUST HAZARD INFORMATION

Particle Size (microns):	Not available
Kst (bar-m/sec):	Not available
Maximum Explosion Pressure (Pmax):	Not available
Dust Class:	Not available
Minimum Ignition Energy (MIE) (mJ):	Not available
Minimum Ignition Temperature (MIT) (°C):	Not available
Minimum Explosive Concentration (MEC) (g/m³):	Not available
Limiting Oxygen Concentration (LOC) (%):	Not available

10. STABILITY AND REACTIVITY

Reactivity:	No information available
Stability:	Stable
Conditions To Avoid:	None known
Polymerization:	Will not occur
Conditions To Avoid:	None known
Materials To Avoid:	Oxidizing agents Acids
Hazardous Decomposition Products:	oxides of carbon When heated to decomposition, it emits toxic fumes. calcium oxide

11. TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY INFORMATION

Likely Routes of Exposure: Oral, Skin, Eyes, Respiratory System.

ACUTE TOXICITY DATA

oral (gavage)	rat	Acute LD50	>2000 mg/kg
dermal	rabbit	Acute LD50	>2000 mg/kg
inhalation	rat	Acute LC50 4 hr	>5 mg/l (Dust/Mist)

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	skin	Not irritating
Acute Irritation	eye	Causes serious damage

ALLERGIC SENSITIZATION

Sensitization	skin	Sensitizing
Sensitization	respiratory	No data

GENOTOXICITY

Assays for Gene Mutations

Ames Salmonella Assay	No data
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OTHER INFORMATION

The product toxicity information above has been estimated.

HAZARDOUS INGREDIENT TOXICITY DATA

Vinyl silane has acute oral (rat) and acute dermal (rat) LD50 values of 3519 mg/kg bw and > 2000 mg/kg, respectively. Direct contact was not irritating to the skin but can cause serious eye damage. This substance produced dermal sensitization in the Guinea Pig Maximisation Test. Based on battery of in vitro and in vivo studies, this substance is not expected to be mutagenic, genotoxic or clastogenic. Based on animal studies, Vinyl silane is not expected to be a reproductive (fertility or developmental) toxin. Repeated oral exposure (90-day) resulted in anemia in rats, NOAEL was 25-30 mg/kg bw/day.

Trimethylated silica, which is a unique form of fumed silica, is not expected to cause adverse health effects via inhalation, oral or dermal routes of exposure. Trimethylated silica does not cause the lung diseases crystalline silica is known to cause. The acute oral (rat) LD50 for fumed silica is 3.1 g/kg.

Acute exposure to titanium dioxide dust is not likely to cause adverse effects. Chronic exposure to titanium dioxide may cause some lung fibrosis. Inhalation of titanium dioxide dust at 50 times the nuisance dust level caused lung fibrosis and a slight increase in lung tumor incidence in laboratory rats. When titanium dioxide was fed to rats and mice over lifetime in a carcinogen bioassay, it was not carcinogenic.

California Proposition 65 Warning (applicable in California only) - This product contains (a) chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

12. ECOLOGICAL INFORMATION

TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

This material is not classified as dangerous for the environment.
The ecological assessment for this material is based on an evaluation of its components.

RESULTS OF PBT AND vPvB ASSESSMENT

Not determined

HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Algae	Toxicity to Fish	Toxicity to Water Flea
calcium carbonate 471-34-1	Not available	Not available	Not available
Vinyl silane	ErC50 = 16 mg/L (measured) - Pseudokirchneriella subcapitata (72h) NOEC = 2.6 mg/L (measured) - Pseudokirchneriella subcapitata (72h)	LC50 = 843 mg/L (measured) - Fathead minnow (96h) NOEC (survival) = 50 mg/L (measured) - Japanese rice fish (96h) flow-through	EC50 = 201 mg/L (measured) - Daphnia magna (48h) NOEC (reproduction) = 100 mg/L (measured) - Daphnia magna (21 day) semi-static
Trimethylated silica 68909-20-6	Not available	Not available	Not available
Titanium Dioxide 13463-67-7	Not available	Not available	Not available
Frits 65997-18-4	Not available	Not available	Not available

13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

US DOT

Dangerous Goods? Not applicable/Not regulated

TRANSPORT CANADA

Dangerous Goods? Not applicable/Not regulated

ICAO / IATA

Dangerous Goods? Not applicable/Not regulated

IMO

Dangerous Goods? Not applicable/Not regulated

15. REGULATORY INFORMATION

Inventory Information

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

European Economic Area (including EU): Cytec has appointed an Only Representative to relieve our customers from their registration requirements under the REACH Regulation (EC) No. 1907/2006. Please contact us if you wish to benefit from the OR arrangement.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

Japan: All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese inventory.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

Switzerland: All components of this product are exempt from the new substance notification requirements for Switzerland (SR 813.11 art. 16-17).

Taiwan: All components of this product are included on the Taiwan Chemical Substance Inventory (TCSI) or are not required to be listed on the Taiwan inventory.

OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

Component / CAS No.	%	TPQ (lbs)	RQ(lbs)	S313	TSCA 12B
Frits 65997-18-4	0.1-1	None		Yes(as Arsenic inorganic compounds) Yes(as Vanadium compounds) Yes(as Lead inorganic compounds) Yes(as Barium compounds) Yes(as Cadmium compounds) Yes(as Silver compounds) Yes(as Zinc compounds) Yes(as Antimony compounds) Yes(as Copper compounds) Yes(as Manganese compounds) Yes(as Nickel compounds)	No

PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA

- Acute
- Chronic

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

Fire: 1 - Materials that must be preheated before ignition can occur.

Instability: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons For Issue: Revised Section 2
Revised Section 3
Revised Section 5
Revised Section 11
Revised Section 15

Date Prepared: 10/30/2017
Date of last significant revision: 01/18/2017

Component Hazard Phrases
Vinyl silane

H227 - Combustible liquid.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H373 - May cause damage to organs through prolonged or repeated exposure.
H402 - Harmful to aquatic life.

Frits

H402 - Harmful to aquatic life.
H412 - Harmful to aquatic life with long lasting effects.

Prepared By: Legal & Compliance Services; E-mail: custinfo@solvay.com

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