siplast

Modified Bitumen Roll Roofing Membrane
Safety Data Sheet

Section 1 - Product and Company Identification

Manufacturer:
Siplast, Inc.
1000 Rochelle Blvd.
Irving, TX 75062

Telephone: 800-922-8800
Internet Address: www.siplast.com
CHEMTREC: 800-424-9300

Trade Names:

Paradiene 20
Paradiene 20 F
Paradiene 20 HT
Paradiene 20 HV
Paradiene 20 EG
Paradiene 20 EG TG P
Paradiene 20 PR
Paradiene 20 TG
Paradiene 20 TG F
Paradiene 20 HT TG
Paradiene 20 HT TG F
Paradiene 20 HT TS
Paradiene 20 HT TS
Paradiene 20 HT TS F
Paradiene 20 HV TG
Paradiene 20 HV TS
Paradiene 20 HV TS F
Paradiene 20 EG TG
Paradiene 20 PR TG
Paradiene 20 TS
Paradiene 20 EG TS
Paradiene 20 TS F
Paradiene 20 TS SA
Paradiene 20 TS SA F
Paradiene 20 SA
Paradiene 20 SA F
Paradiene 20 HT SA
Paradiene 20 EG SA
Paradiene 20 P
Paradiene 20 TG P
Paradiene 20 SA P
Paradiene 20 TS P
Paradiene 20 TS SA P
Paradiene 20 MW
Pro Base LP
Pro Base LP SA
Pro Base LP TG
Pro Base
Pro Base TG
Pro Base TS
Pro Base TS SA
Pro Base SA
Pro Base HT
Pro Base HT TG
Pro Base EG
Pro Base EG TG
Pro Base EG SA
Pro Base HT TS
Pro Base MW SA
Irex 40
Irex HT
Paradiene 30
Paradiene 30 BW
Paradiene 30 FR
Paradiene 30 FR TG
Paradiene 30 FR BW
Paradiene 30 FR TG BW
Paradiene 30 HT
Paradiene 30 HT BW
Paradiene 30 HT FR BW
Paradiene 30 HT FR
Paradiene 30 HT FR TG
Paradiene 30 HT FR TG BW
Paradiene 30 HT TG
Paradiene 30 HT TG BW
Paradiene 30 MW FR
Paradiene 30 MW FR BW
Paradiene 30 TG
Paradiene 30 TG BW
Paradiene 40 FR
Paradiene 40 FR BW
Paradiene 40 FR TG
Paradiene 40 FR TG BW
Parafor 30
Parafor 30 BW
Parafor 30 TG
Parafor 30 TG BW
Parafor 50 LT
Parafor 50 LT BW
Parafor 50 TG
Parafor 50 TG BW
Parabase Plus
Parabase Plus P
Paratread
Teranap 1M Film
Teranap 1M Sand
Teranap 1M GS
Veral Aluminum
Veral Spectra

Use: These products are designed for use in roofing systems where two or more plies of modified bitumen are desired.

Section 2 - Hazards Identification

As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200, the products listed below are considered articles and do not require an SDS. In addition, articles are not included in the scope of the Globally Harmonization System (GHS). As such, the GHS labeling elements are not included on this SDS. All components listed for this product are bound within the product. When handled as intended and under normal conditions of use, there is no evidence that any of the ingredients are released in amounts that pose a significant health risk. Although these products are not subject to the OSHA Standard or GHS labeling elements, Siplast would like to disclose as much health and safety information as possible to ensure that this product is handled and used properly. This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and be made available for employees and other users of this product. In addition, the recommendations for handling and use of these products should be included in worker training programs.

ADDITIONAL HAZARD IDENTIFICATION INFORMATION:

PRIMARY ROUTE OF EXPOSURE: Occasional nuisance dust, Inhalation

SIGNS & SYMPTOMS OF EXPOSURE

EYES:	May cause irritation to the eyes.
SKIN:	May cause irritation to the skin.
INGESTION:	This product is not intended to be ingested. If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.
INHALATION:	May cause irritation to the respiratory tract.
ACUTE HEALTH HAZARDS:	NIOSH has found that studies of workers exposed to asphalt fumes have repeatedly found irritation of the serous membranes of the conjunctivae (eye irritation) and the mucous membranes of the upper respiratory tract (nasal and throat irritation).
CHRONIC HEALTH HAZARDS:	Studies in humans have found that exposure to respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. Silicosis is a serious and irreversible disease; it may be progressive even after exposure has ceased; it can lead to disability and death. Human studies also have found that silicosis is a risk factor for tuberculosis, and that occupational exposure to respirable crystalline silica is associated with chronic obstructive pulmonary disease, including bronchitis and emphysema. Some studies show excess numbers of cases of scleroderma, connective tissue disorders, lupus, rheumatoid arthritis, chronic kidney diseases and end-stage kidney disease in workers exposed to respirable crystalline silica.
CARCINOGENICITY:	IARC has determined that occupational exposure to oxidized asphalt and its emissions is probably carcinogenic to humans (Group 2A). IARC concluded that available data from cancer studies in humans points to an association between exposures to oxidized asphalts during roofing and lung cancer and tumors in the upper aero-digestive tract. In addition, IARC found sufficient evidence of carcinogenicity in experimental animals for extracts and fume condensates of oxidized asphalts. NIOSH has concluded that the collective data from human, animal, genotoxicity and exposure studies provide sufficient evidence that roofing asphalt fumes are a potential occupational carcinogen. Occupational exposure to respirable crystalline silica is classified as a known carcinogen in humans. IARC has determined that respirable crystalline silica is carcinogenic to humans (Group 1), based on findings of sufficient evidence of carcinogenicity in both humans and experimental animals. NTP has classified respirable crystalline silica as a known human carcinogen based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between occupational exposure to respirable crystalline silica and increased lung cancer rates. NIOSH has determined that respirable crystalline silica is a potential occupational carcinogen. IARC has determined that occupational exposure to Titanium Dioxide is possibly carcinogenic to humans (Group 2B). IARC concluded lung tumors were observed in rats following high dose exposure by inhalation and in female rats exposed by intra-tracheal instillation. Other studies have shown no tumors in rats following inhalation exposure and no tumors in mice or rats following oral exposure.

Section 3 - Composition/Information on Ingredients

CAS #	Component	Percent
8052-42-4	Asphalt	20-70
64742-93-4	Asphalt, oxidized	0 -10*
13463-67-7	Titanium dioxide (Ingredient of CR products only)	2-10
Not Available	Mineral granules (Ceramic-coated granite; 35% crystalline silica, non-respirable)	0-35
1317-65-3	Calcium carbonate	0-35
12007-56-6	Calcium borate (Colemanite) (Products with FR suffix contain colemanite for fire resistance)	0-35
16389-88-1	Dolomite (CaMg(CO3)2)	0-35
9003-55-8	Styrene-Butadiene polymer	4-10
25038-59-9	Polyester fiber	2-10
Not Available	Glass fiber mat	2-10
Not Available	Continuous filament glass fiber	2-10

Not Available	Glass fiber mat with polyester scrim	2-10
Not Available	Polyester mat	2-10
Not Available	Polyester mat with glass scrim	2-10
14808-60-7	Crystalline silica (sand) (adhered to product and is >99.9% too large to become airborne or to be respirable)	0-10
7429-90-5	Aluminum foil (Veral) has an aluminum foil surface)	0-5
9002-88-4	Polypropylene or Polyolefin Film	0-6
64742-11-6	Extracts, petroleum, heavy naphthenic	>1
64741-53-3	Distillates, petroleum, heavy naphthenic	>1

Component Information

* Present in. Veral. Occupational exposure to asphalt, oxidized is not expected to occur due to product form and intended application.

Occupational exposure to titanium dioxide is not expected to occur due to product form and intended use. Exposure limit is given for reference only.

General Product Description

These products consist of a modified bitumen sheet incorporating the features of a fiber glass mat and/or polyester composite mat with a blend of SBS (Styrene-Butadiene-Styrene) rubber and high quality asphalt. Product may also contain fire retardant additives.

Veral is aluminum foil surfaced.

Parabase products are mineral surfaced, asphalt coated, fiber glass cap sheets for use in built-up roofing systems.

Section 4 - First Aid Measures

First Aid: Inhalation

Remove to fresh air. If symptoms persist contact a physician.

First Aid: Skin

Wash exposed skin with soap and water. If irritation develops or persists, seek medical attention.

First Aid: Ingestion

Product is not intended to be ingested or eaten. If this product is ingested, do not induce vomiting and seek medical attention immediately.

First Aid: Eyes

Flush eyes with large amounts of water until irritation subsides. If irritation persists, seek medical attention.

Section 5 - Fire Fighting Measures

Flash Point: > 500ºF
Upper Flammable Limit (UFL): Not determined
Auto Ignition: 460ºC/860ºF
Rate of Burning: Not determined
Method Used: COC
Lower Flammable Limit (LFL): Not determined
Flammability Classification: Not determined

General Fire Hazards

There is no potential for spontaneous fire or explosion.

Extinguishing Media

Carbon dioxide (CO_2), dry chemical.

Fire Fighting Equipment/Instructions

No special procedures are expected to be necessary for this product. Normal firefighting procedures should be followed to avoid inhalation of smoke and gases.

Section 6 - Accidental Release Measures

Clean-Up Procedures

Pick up large pieces. Vacuum dusts.

Section 7 - Handling and Storage

Handling Procedures

Use protective equipment as described in Section 8 of this safety data sheet when handling uncontained material. Handle in accordance with good industrial hygiene and safety practices.

Storage Procedures

Warehouse storage should be in accordance with package directions, if any. Material should be kept clean, dry, and in original packaging.

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information

The Occupational Safety and Health Administration (OSHA) has not adopted specific occupational exposure standards for fiber glass. Fiber glass is treated as a nuisance dust and is regulated by OSHA as a particulate not otherwise regulated (total dust) shown in CFR 1910.1000 Table Z-3.
Respirable fraction 5 mg/m^3
Total dust 15 mg/m^3

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B: Component Exposure Limits

Asphalt (8052-42-4)

ACGIH: 0.5 mg/m³TWA (fume, inhalable fraction, as benzene soluble aerosol)

Titanium dioxide (Ingredient of CR products only) (13463-67-7)

OSHA: 15 mg/m³ TWA (total dust); 10 mg/m³ TWA (total dust)
ACGIH: 10 mg/m³ TWA

Calcium carbonate (1317-65-3)

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Crystalline silica (sand) (adhered to product and is >99.9% too large to become airborne or to be respirable) (14808- 60-7)

OSHA: 0.1 mg/m³ TWA (respirable dust)
((250)/(%SiO2 + 5) mppcf TWA (respirable)); ((10)/(%SiO2 + 2) mg/m³ TWA (respirable));
((30)/(%SiO2 + 2) mg/m³ TWA (total dust))
ACGIH: 0.025 mg/m³ TWA (respirable fraction)

Aluminum foil (Veral Al has an aluminum foil surface) (7429-90-5)

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)
ACGIH: 1 mg/m³ TWA (respirable fraction)

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Safety glasses with side shields or chemical goggles are recommended.

Personal Protective Equipment: Skin

Leather or cotton gloves should be worn to protect against mechanical abrasion.

Personal Protective Equipment: Respiratory

None required.

Personal Protective Equipment: General

Protective equipment should be provided as necessary to prevent irritation of the throat, eyes, and skin, and to keep exposures below the applicable exposure limits identified in Section 8.

Section 9 - Physical & Chemical Properties

Appearance:	Dark mat with granule or white coated surface	**Odor:**	Asphalt odor
Physical State:	solid	**pH:**	Not applicable
Vapor Pressure:	Not applicable	**Vapor Density:**	Not applicable
Boiling Point:	>370ºC/>700ºF	**Melting Point:**	>95ºC/>200ºF
Solubility (H_2O):	Nil	**Specific Gravity:**	Variable
Freezing Point:	Not determined	**Evaporation Rate:**	Not applicable
Viscosity:	Not applicable	**Percent Volatile:**	0
VOC:	Not determined		

Section 10 - Stability & Reactivity Information

Stability

These products are not reactive.

Hazardous Decomposition

May form carbon dioxide and carbon monoxide.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Acute Toxicity

A: General Product Information

Vapors from this product may cause eye, respiratory and skin irritation,

B: Component Analysis - LD50/LC50

Asphalt (8052-42-4)
Oral LD50 Rat: >5000 mg/kg; Dermal LD50 Rabbit:>2000 mg/kg

Titanium dioxide (Ingredient of CR products only) (13463-67-7)
Oral LD50 Rat: >10000 mg/kg

Calcium borate (Colemanite) (Products with FR suffix contain colemanite for fire resistance) (12007-56-6)
Oral LD50 Rat: 5600 mg/kg

Crystalline silica (sand) (adhered to product and is >99.9% too large to become airborne or to be respirable) (14808- 60-7)
Oral LD50 Rat: 500 mg/kg

Polypropylene or Polyolefin Film (9002-88-4)
Inhalation LC50 Mouse: 12 g/m3/30M

Distillates, petroleum, heavy naphthenic (64741-53-3)
Oral LD50 Rat: >5000 mg/kg; Dermal LD50 Rabbit:>2000 mg/kg

Extracts, petroleum, heavy naphthenic (64742-11-6)
Oral LD50 Rat: >5000 mg/kg; Dermal LD50 Rabbit:>2000 mg/kg

Component Carcinogenicity

Asphalt (8052-42-4)
ACGIH: A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free)
IARC: Group 3 - Not Classifiable (IARC Supplement 7 [1987], Monograph 35 [1985] (steam-refined cracking-residue and air-refined))

Oxidized bitumens (64742-93-4)
IARC: Group 2A - Probably Carcinogenic to Humans

Titanium dioxide (Ingredient of CR products only) (13463-67-7)
ACGIH: A4 - Not Classifiable as a Human Carcinogen
IARC: Group 2B - Possibly Carcinogenic to Humans (IARC Monograph 93 [in preparation], Monograph 47 [1989])

Styrene-Butadiene polymer (9003-55-8)
IARC: Group 3 - Not Classifiable (IARC Supplement 7 [1987], Monograph 19 [1979])

Continuous filament glass fiber (Not Available)
ACGIH: A4 - Not Classifiable as a Human Carcinogen (listed under Synthetic Vitreous Fibers)
IARC: Group 3 - Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibres), Monograph 43 [1988]))

Crystalline silica (sand) (adhered to product and is >99.9% too large to become airborne or to be respirable) (14808- 60-7)
ACGIH: A2 - Suspected Human Carcinogen
NTP: Known Human Carcinogen (Select Carcinogen)
IARC: Group 1 - Known Human Carcinogen (IARC Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources))

Aluminum foil (Veral has an aluminum foil surface) (7429-90-5)
ACGIH: A4 - Not Classifiable as a Human Carcinogen

Polypropylene or Polyolefin Film (9002-88-4)
IARC: Group 3 - Not Classifiable (IARC Supplement 7 [1987], Monograph 19 [1979])

Chronic Toxicity

Asphalt (asphalt CAS # 8052-42-4): In 1985/87, IARC (International Agency for Research on Cancer) concluded the following:
(a) Bitumens are not classifiable as to their carcinogenicity to humans (Group 3).

Oxidized bitumens (oxidized asphalt) #64742-93-4: In 2011, the International Agency for Research on Cancer (IARC) announced its conclusion that "occupational exposures to oxidized bitumens and their emissions during roofing" are Group 2A (probably Carcinogenic to Humans). This finding pertains specifically to occupational exposures to oxidized asphalt, which is another name for bitumen, and their emissions during roofing. Occupational exposure to asphalt, oxidized is not expected to occur due to product form and intended use.

Continuous Filament Glass Fiber: No chronic health effects are known to be associated with exposure to continuous filament fiber glass. Results from epidemiologic studies have not shown any increases in respiratory disease or cancer. The International Agency for Research on Cancer (IARC) has classified continuous filament fiber glass as a Group 3 substance, not classifiable as to its carcinogenicity to humans. Because of the large diameter of continuous filament fibers, these products are not considered respirable.

Crystalline silica is considered a hazard by inhalation. The International Agency for Research on Cancer (IARC) has classified crystalline silica as a Group 1 substance, carcinogenic to humans. This classification is based on the findings of laboratory animal studies (inhalation and implantation) and epidemiology studies that were considered sufficient for carcinogenicity.

Several studies have been conducted to determine the risk of cancer to workers exposed to dusts which contain crystalline silica. However, these studies did not consider other factors or elements that workers may be exposed to. Therefore, the causes of the excess deaths due to cancer could not be precisely determined. Further studies are being conducted to determine the risk of cancer when working with crystalline silica products. Excessive exposure to crystalline silica can cause silicosis, a non-cancerous lung disease.

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Extracts, petroleum, heavy naphthenic (64742-11-6)
48 Hr EC50 Daphnia magna: 1.4 mg/L

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions

A: General Product Information

This product is not expected to be a hazardous waste when it is disposed of according to the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Product characterization after use is recommended to ensure proper disposal under federal and/or state requirements.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - Transport Information

International Transport Regulations

These products are not classified as dangerous goods according to international transport regulations.

Section 15 - Regulatory Information

US Federal Regulations

A: General Product Information

SARA 311 Status. The following SARA 311 designations apply to this product: Immediate (acute) health hazard.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Aluminum foil (Veral has an aluminum foil surface) (7429-90-5)
SARA 313: 1.0 % de minimis concentration (dust or fume only)

State Regulations

A: General Product Information

The glass fibers in this product are not known to be regulated.
Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Asphalt	8052-	Yes	No	Yes	Yes	Yes	Yes
Asphalt, oxidized	64742-	No	No	No	No	Yes	No
Titanium dioxide (Ingredient of CR products only)	13463-	No	No	Yes	Yes	Yes	Yes
Calcium carbonate	1317-	No	No	Yes	Yes	Yes	Yes
Crystalline silica (sand) (adhered to product and is >99.9% too large to become airborne or to be respirable)	14808-60-7	No	No	Yes	Yes	Yes	Yes
Aluminum foil (Veral has an aluminum foil surface)	7429-	Yes	No	Yes	Yes	Yes	Yes
Distillates, petroleum, heavy naphthenic	64741-	No	No	Yes	No	No	No
Extracts, petroleum, heavy naphthenic	64742-	No	No	Yes	No	No	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING! This product contains a chemical known to the state of California to cause cancer.

Asphalt fumes may contain trace amounts of the following California Proposition 65 Listed Substances as known to the state of California to cause cancer or reproductive effects: Poly nuclear aromatic hydrocarbons (benz(a)anthracene, benzo(b)fluoranthene, benzo(j)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene).

TSCA Status

This product and its components are listed on the TSCA 8(b) inventory.

None of the components listed in this product are listed on the TSCA Export Notification 12(b) list.

International Regulations

A: General Product Information

These products are considered articles under both U.S. and international product regulations and as such, these products do not require registration or notification on the various country-specific inventories.

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Continuous filament glass fiber	Not Available	1 % (related to Fibrous glass)
Crystalline silica (sand) (adhered to product and is too large to become airborne or to be respirable)	14808-60-7	>99.9% 1 %
Aluminum foil (Veral has an aluminum foil surface)	7429-90-5	1 %

WHMIS Classification

This is not a WHMIS controlled product. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations. This SDS contains all the information required by the Controlled Products Regulations.

Section 16 - Other Information

Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.