

Safety Data Sheet



Section 1: Identification

Product identifier

Product Name • **Envirostop ASC-5513 H**

Product Code • 270700

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Refractory applications

Details of the supplier of the safety data sheet

Manufacturer • Reno Refractories, Inc.
 P O Box 201
 Morris, AL 35116
 United States
 www.renorefractories.com
 sales@renorefractories.com

Telephone (General) • 205-647-0240

Emergency telephone number

Manufacturer • 1-800-262-8200 - CHEMTREC

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 • Skin Sensitization 1
 Eye Irritation 2
 Germ Cell Mutagenicity 1A
 Carcinogenicity 1A
 Reproductive Toxicity 1A
 Specific Target Organ Toxicity Repeated Exposure 1
 Skin Corrosion 1

Label elements

OSHA HCS 2012

DANGER



Hazard statements • May cause an allergic skin reaction
 Causes serious eye irritation

May cause genetic defects.
 May cause cancer.
 May damage fertility or the unborn child.
 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention • Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe dust.
 Do not eat, drink or smoke when using this product.
 Contaminated work clothing should not be allowed out of the workplace.
 Wear protective gloves, clothing, and eye/face protection, .

Response • If on skin: Wash with plenty of water .
 Wash contaminated clothing before reuse.
 Specific treatment, see supplemental first aid information.
 If skin irritation or rash occurs: Get medical advice/attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 IF exposed or concerned: Get medical advice/attention.

Storage/Disposal • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.


Canada

According to: WHMIS

Classification of the substance or mixture

WHMIS • Toxic - D1B
 Other Toxic Effects - D2A
 Other Toxic Effects - D2B

Label elements

WHMIS •  

WHMIS • Toxic - D1B
 Other Toxic Effects - D2A
 Other Toxic Effects - D2B

Other hazards

WHMIS • In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances

• Material does not meet the criteria of a substance.

Mixtures

| Composition | | | | |
|-------------------------------|----------------|------------------|---|---|
| Chemical Name | Identifiers | % | LD50/LC50 | Classifications According to Regulation/Directive |
| Aluminum oxide | CAS:1344-28-1 | 21% TO 33.25% | Inhalation-Rat LC50 • 0.2 mg/L 5 Hour(s) 28 Week(s) | OSHA HCS 2012: Not Classified |
| Aluminum(III) silicate (2:1) | CAS:1302-76-7 | 11.05% TO 18.05% | NDA | OSHA HCS 2012: STOT RE 2 (Lungs) |
| Quartz | CAS:14808-60-7 | 8.09% TO 16.87% | NDA | OSHA HCS 2012: Carc. 1A; STOT RE 1 (Lungs); |
| Silicon carbide | CAS:409-21-2 | 2.5% TO 9% | NDA | OSHA HCS 2012: STOT RE 2 (Lungs) |
| Clay | Proprietary | 3.23% TO 8.096% | NDA | OSHA HCS 2012: Not Classified |
| Pitch | CAS:68187-58-6 | 4.4% TO 7.5% | NDA | OSHA HCS 2012: Not Classified |
| Carbon Coke | Proprietary | 3% TO 7% | NDA | OSHA HCS 2012: Not Classified |
| Zirconium oxide | CAS:1314-23-4 | 1.5% TO 5.25% | NDA | OSHA HCS 2012: Not Classified |
| Amorphous silica fume | CAS:69012-64-2 | 1.8% TO 5% | NDA | OSHA HCS 2012: STOT RE 1 (Lungs) |
| Graphite | CAS:7782-42-5 | 0.15% TO 4.2% | NDA | OSHA HCS 2012: STOT RE 1 (Lung, Inhl) |
| Silicon | CAS:7440-21-3 | 0.45% TO 4% | Ingestion/Oral-Rat LD50 • 3160 mg/kg | OSHA HCS 2012: Eye Irrit. 2 |
| Antioxidant | Proprietary | 0.2% TO 2.75% | Ingestion/Oral-Rat LD50 • 750 mg/kg | OSHA HCS 2012: STOT SE 3: Resp. Irrit.; STOT RE 2 (Lung) |
| Wetting Agent | Proprietary | 1.1% TO 2.6% | Ingestion/Oral-Rat LD50 • 6400 mg/kg | OSHA HCS 2012: Not Classified |
| Solvent naphtha | CAS:64742-94-5 | 0.9% TO 2% | Inhalation-Rat LC50 • >590 mg/m ³ 4 Hour(s) | OSHA HCS 2012: WHMIS: Comb. Liq. - B3 |
| Resin | Proprietary | 1% TO 2% | Ingestion/Oral-Rat LD50 • >5 g/kg | OSHA HCS 2012: Not Classified |
| Titanium dioxide | CAS:13463-67-7 | 0.197% TO 1.162% | NDA | OSHA HCS 2012: Carc. 2 |
| Wetting Agent | Proprietary | 0.3% TO 1% | Ingestion/Oral-Rat LD50 • >5 g/kg Skin-Rabbit LD50 • >5 g/kg | OSHA HCS 2012: Not Classified |
| Wetting Agent | Proprietary | 0.24% TO 0.92% | NDA | OSHA HCS 2012: Not Classified |
| Benzene, tert-butyl- | CAS:98-06-6 | < 0.9% | NDA | OSHA HCS 2012: WHMIS: |
| Wetting Agent | Proprietary | < 0.525% | Ingestion/Oral-Rat LD50 • 1900 mg/kg Skin-Rabbit LD50 • >10 g/kg | OSHA HCS 2012: Acute Tox. 4 (orl); Skin Irrit. 2; |
| Benzene, 1,2,3,5-tetramethyl- | CAS:527-53-7 | < 0.36% | NDA | OSHA HCS 2012: WHMIS: |
| Benzene, 1,4-diethyl- | CAS:105-05-5 | < 0.3% | NDA | OSHA HCS 2012: WHMIS: |
| Benzene, 1,2,3,4-tetramethyl- | CAS:488-23-3 | < 0.24% | NDA | OSHA HCS 2012: WHMIS: |
| Naphthalene | CAS:91-20-3 | < 0.2% | Ingestion/Oral-Rat LD50 • 490 mg/kg | OSHA HCS 2012: WHMIS: Other Toxic Effects - D2A; Flam. Solid - B4 |
| PROPYLTOLUENE | CAS:1074-43-7 | < 0.16% | NDA | OSHA HCS 2012: WHMIS: |
| 1,2,3-Trimethylbenzene | CAS:526-73-8 | < 0.16% | NDA | OSHA HCS 2012: WHMIS: Other Toxic Effects - D2B; Comb. Liq. - B3 |

| | | | | |
|------------------------|----------------|-------------------------|---|--|
| 1,2,4-Trimethylbenzene | CAS:95-63-6 | < 0.12% | Ingestion/Oral-Mouse LD50 • 6900 mg/kg | OSHA HCS 2012: WHMIS: Comb. Liq. - B3 |
| Indan | CAS:496-11-7 | < 0.1% | NDA | OSHA HCS 2012: WHMIS: |
| Benzene, diethyl- | CAS:25340-17-4 | < 0.08% | NDA | OSHA HCS 2012: WHMIS: Other Toxic Effects - D2B |
| Benzene, m-diethyl- | CAS:141-93-5 | < 0.06% | NDA | OSHA HCS 2012: WHMIS: |
| Phenol | CAS:108-95-2 | < 0.05% | Ingestion/Oral-Rat LD50 • 317 mg/kg Inhalation-Rat LC50 • 316 mg/m ³ 4 Hour(s) | OSHA HCS 2012: Exposure limits |
| Chrysene, 5-methyl- | CAS:3697-24-3 | 0.00425% TO 0.034% | NDA | OSHA HCS 2012: WHMIS: |
| Cristobalite | CAS:14464-46-1 | < 0.019% | NDA | OSHA HCS 2012: Exposure limits |
| Benzo(j)fluoranthene | CAS:205-82-3 | 0.00425% TO 0.017% | NDA | OSHA HCS 2012: WHMIS: |
| Chrysene | CAS:218-01-9 | 0.00425% TO 0.0136% | NDA | OSHA HCS 2012: WHMIS: |
| Benz(a)anthracene | CAS:56-55-3 | 0.00425% TO 0.0136% | NDA | OSHA HCS 2012: WHMIS: |
| Benzo(a)pyrene | CAS:50-32-8 | < 0.0136% | NDA | OSHA HCS 2012: Exposure limits |
| Benzo(ghi)perylene | CAS:191-24-2 | 0.002125% TO 0.0068% | NDA | OSHA HCS 2012: WHMIS: |

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.

Ingestion

- Rinse mouth. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to material other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

- Suitable Extinguishing Media** • This product does not burn or support combustion. Use extinguishing agent suitable for type of surrounding fire.

- Unsuitable Extinguishing Media** • None known.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • None known.

Hazardous Combustion Products • None known.

Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions • Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not walk through spilled material. Ventilate enclosed areas.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. Keep unauthorized personnel away. Stay upwind.

Environmental precautions

- No specific actions or treatments recommended related to exposure to this material.

Methods and material for containment and cleaning up

Containment/Clean-up Measures • Avoid generating dust. Wet down material before clean-up. Use vacuums with high-efficiency particulate air (HEPA) filters or wet-sweeping for clean-up. Never dry sweep or blow dust with compressed air.

Section 7 - Handling and Storage

Precautions for safe handling

Handling • Use good safety and industrial hygiene practices. Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact. Wear long sleeves and/or protective coveralls. Do not breathe dust. Avoid contact with skin, eyes, and clothing. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Contaminated clothing must be vacuumed before removal. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage • Store in a covered location. Keep container closed. Keep from freezing. Storage and work area should be periodically cleaned to minimize dust accumulation.

Section 8 - Exposure Controls/Personal Protection

Control parameters

| Exposure Limits/Guidelines | | | | | | |
|-----------------------------|--------|-----------------|--|-----------------|-----------------|-----------------|
| | Result | ACGIH | Canada Ontario | Canada Quebec | Mexico | NIOSH |
| Benz(a)anthracene (56-55-3) | TWAs | Not established | exposure by all routes should be carefully controlled to levels as low as possible | Not established | Not established | Not established |

| | | | | | | |
|--------------------------------------|----------|---|---|--|--|--|
| Chrysene (218-01-9) | TWAs | Not established | exposure by all routes should be carefully controlled to levels as low as possible | Not established | Not established | Not established |
| Benzo(a)pyrene (50-32-8) | TWAs | Not established | exposure by all routes should be carefully controlled to levels as low as possible | 0.005 mg/m3 TWAEV | Not established | Not established |
| Cristobalite (14464-46-1) | TWAs | 0.025 mg/m3 TWA (respirable particulate matter) | 0.05 mg/m3 TWA (designated substances regulation, respirable, listed under Silica, crystalline) | 0.05 mg/m3 TWAEV (respirable dust) | 0.05 mg/m3 TWA VLE-PPT (respirable fraction) | 0.05 mg/m3 TWA (respirable dust) |
| Phenol (108-95-2) | STELs | Not established | Not established | Not established | 10 ppm STEL [PPT-CT]; 38 mg/m3 STEL [PPT-CT] | Not established |
| | TWAs | 5 ppm TWA | 5 ppm TWA | 5 ppm TWAEV; 19 mg/m3 TWAEV | 5 ppm TWA VLE-PPT; 19 mg/m3 TWA VLE-PPT | 5 ppm TWA; 19 mg/m3 TWA |
| | Ceilings | Not established | Not established | Not established | Not established | 15.6 ppm Ceiling (15 min); 60 mg/m3 Ceiling (15 min) |
| 1,2,4-Trimethylbenzene (95-63-6) | TWAs | Not established | Not established | Not established | Not established | 25 ppm TWA; 125 mg/m3 TWA |
| Graphite (7782-42-5) | TWAs | 2 mg/m3 TWA (all forms except graphite fibers, respirable particulate matter) | 2 mg/m3 TWA (except Graphite fibres, respirable) | 2 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, except Graphite fibres, respirable dust) | 2 mg/m3 TWA VLE-PPT (synthetic and natural) | 2.5 mg/m3 TWA (natural, respirable dust) |
| 1,2,3-Trimethylbenzene (526-73-8) | TWAs | Not established | Not established | Not established | Not established | 25 ppm TWA; 125 mg/m3 TWA |
| Titanium dioxide (13463-67-7) | STELs | Not established | Not established | Not established | 20 mg/m3 STEL [PPT-CT] (as Ti) | Not established |
| | TWAs | 10 mg/m3 TWA | 10 mg/m3 TWA | 10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust) | 10 mg/m3 TWA VLE-PPT (as Ti) | Not established |
| Naphthalene (91-20-3) | STELs | Not established | 15 ppm STEL | 15 ppm STEV; 79 mg/m3 STEV | 15 ppm STEL [PPT-CT]; 75 mg/m3 STEL [PPT-CT] | 15 ppm STEL; 75 mg/m3 STEL |
| | TWAs | 10 ppm TWA | 10 ppm TWA | 10 ppm TWAEV; 52 mg/m3 TWAEV | 10 ppm TWA VLE-PPT; 50 mg/m3 TWA VLE-PPT | 10 ppm TWA; 50 mg/m3 TWA |
| Silicon (7440-21-3) | STELs | Not established | Not established | Not established | 20 mg/m3 STEL [PPT-CT] | Not established |
| | | | | 10 mg/m3 TWAEV (containing no | 10 mg/m3 TWA VLE- | 10 mg/m3 TWA (total |

| | | | | | | |
|------------------------------------|-------|---|---|---|---|--|
| | TWAs | Not established | Not established | Asbestos and <1% Crystalline silica, total dust) | PPT (inhalable fraction) | dust); 5 mg/m3 TWA (respirable dust) |
| Amorphous silica fume (69012-64-2) | TWAs | Not established | 2 mg/m3 TWA (respirable, listed under Silica fume) | 2 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, respirable dust) | 2 mg/m3 TWA VLE-PPT; 10 mg/m3 TWA VLE-PPT (inhalable particulate); 3 mg/m3 TWA VLE-PPT (respirable particulate) | Not established |
| Silicon carbide (409-21-2) | STELs | Not established | Not established | Not established | 20 mg/m3 STEL [PPT-CT] | Not established |
| | TWAs | 10 mg/m3 TWA (nonfibrous, inhalable particulate matter, particulate matter containing no asbestos and <1% crystalline silica); 3 mg/m3 TWA (nonfibrous, respirable particulate matter, particulate matter containing no asbestos and <1% crystalline silica); 0.1 fibre/cm3 TWA (as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination., respirable fibers, including whiskers, length >5 µm, aspect ratio >=3:1) | 10 mg/m3 TWA (non-fibrous, containing no Asbestos and <1% Crystalline silica, inhalable); 3 mg/m3 TWA (non-fibrous, containing no Asbestos and <1% Crystalline silica, respirable); 0.1 fibre/cm3 TWA (fibrous, including whiskers, fibres >5 µm in length and an aspect ratio >=3:1 as determined by the membrane filter method at 400-450 times magnification (4 -mm objective), using phase-contrast illumination, respirable) | 10 mg/m3 TWAEV (non fibrous, containing no Asbestos and <1% Crystalline silica, total dust) | 10 mg/m3 TWA VLE-PPT | 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust) |
| Clay (Proprietary) | STELs | Not established | Not established | Not established | 20 mg/m3 STEL [PPT-CT] | Not established |
| | TWAs | 2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter) | 2 mg/m3 TWA (containing no Asbestos and <1% Crystalline silica, respirable) | 5 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, respirable dust) | 10 mg/m3 TWA VLE-PPT | 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust) |
| Quartz (14808-60-7) | TWAs | 0.025 mg/m3 TWA (respirable particulate matter) | 0.10 mg/m3 TWA (designated substances regulation, respirable, listed under Silica, crystalline) | 0.1 mg/m3 TWAEV (respirable dust) | 0.1 mg/m3 TWA VLE-PPT (respirable fraction) | 0.05 mg/m3 TWA (respirable dust) |
| Aluminum oxide (1344-28-1) | TWAs | Not established | Not established | 10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust, as Al) | 10 mg/m3 TWA VLE-PPT | Not established |

| Exposure Limits/Guidelines (Con't.) | | | |
|-------------------------------------|--------|--|--------------------------|
| | Result | OSHA | Other Agency Information |
| Chrysene (218-01-9) | TWAs | 0.2 mg/m ³ TWA (listed under Coal tar pitch volatiles) | Not established |
| Benzo(a)pyrene (50-32-8) | TWAs | 0.2 mg/m ³ TWA (listed under Coal tar pitch volatiles) | Not established |
| Cristobalite (14464-46-1) | TWAs | 50 µg/m ³ TWA (listed under Respirable crystalline silica) | Not established |
| Phenol (108-95-2) | TWAs | 5 ppm TWA; 19 mg/m ³ TWA | Not established |
| Benzene, diethyl- (25340-17-4) | TWAs | Not established | 5 ppm TWA |
| Graphite (7782-42-5) | TWAs | 15 mg/m ³ TWA (synthetic, total dust); 5 mg/m ³ TWA (synthetic, respirable fraction) | Not established |
| Titanium dioxide (13463-67-7) | TWAs | 15 mg/m ³ TWA (total dust) | Not established |
| Naphthalene (91-20-3) | TWAs | 10 ppm TWA; 50 mg/m ³ TWA | Not established |
| Silicon (7440-21-3) | TWAs | 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) | Not established |
| Silicon carbide (409-21-2) | TWAs | 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) | Not established |
| Clay (Proprietary) | TWAs | 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) | Not established |
| Quartz (14808-60-7) | TWAs | 50 µg/m ³ TWA (listed under Respirable crystalline silica) | Not established |
| Aluminum oxide (1344-28-1) | TWAs | 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) | Not established |

Exposure Control Notations

Mexico

- Phenol (108-95-2): **Skin:** (Skin - potential for cutaneous absorption)

Canada Ontario

- Phenol (108-95-2): **Skin:** (Danger of cutaneous absorption)
- Cristobalite (14464-46-1): **Designated Substances:** (0.05 mg/m³ TWA (respirable fraction, listed under Silica, crystalline))
- Quartz (14808-60-7): **Designated Substances:** (0.10 mg/m³ TWA (respirable fraction, listed under Silica, crystalline))
- Naphthalene (91-20-3): **Skin:** (Danger of cutaneous absorption)

Canada Quebec

- Phenol (108-95-2): **Skin:** (Skin designation)
- Quartz (14808-60-7): **Carcinogens:** (C2 carcinogen - effect suspected in humans)
- Benzo(a)pyrene (50-32-8): **Carcinogens:** (C2 carcinogen - effect suspected in humans)
- Chrysene (218-01-9): **Carcinogens:** (C2 carcinogen - effect suspected in humans)
- Benz(a)anthracene (56-55-3): **Carcinogens:** (C2 carcinogen - effect suspected in humans)

ACGIH

- Phenol (108-95-2): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen) | **Skin:** (Skin - potential significant contribution to overall exposure by the cutaneous route)
- Clay (Proprietary): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Titanium dioxide (13463-67-7): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Cristobalite (14464-46-1): **Carcinogens:** (A2 - Suspected Human Carcinogen)
- Quartz (14808-60-7): **Carcinogens:** (A2 - Suspected Human Carcinogen)
- Silicon carbide (409-21-2): **Carcinogens:** (A2 - Suspected Human Carcinogen (fibrous, including whiskers))
- Benzo(a)pyrene (50-32-8): **Carcinogens:** (A2 - Suspected Human Carcinogen)

- Naphthalene (91-20-3): **Carcinogens:** (A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans) | **Skin:** (Skin - potential significant contribution to overall exposure by the cutaneous route)
- Chrysene (218-01-9): **Carcinogens:** (A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans)
- Benz(a)anthracene (56-55-3): **Carcinogens:** (A2 - Suspected Human Carcinogen)

Exposure Limits Supplemental

OSHA

- Cristobalite (14464-46-1): **Mineral Dusts:** ((1/2)(250)/(%SiO2 + 5) mppcf TWA, respirable fraction; (1/2)(10)/(%SiO2 + 2) mg/m3 TWA, respirable fraction)
- Quartz (14808-60-7): **Mineral Dusts:** ((250)/(%SiO2 + 5) mppcf TWA, respirable fraction; (10)/(%SiO2 + 2) mg/m3 TWA, respirable fraction)
- Graphite (7782-42-5): **Mineral Dusts:** (15 mppcf TWA (natural))

ACGIH

- Phenol (108-95-2): **BEIs:** (250 mg/g creatinine Medium: urine Time: end of shift Parameter: Phenol with hydrolysis (background, nonspecific)) | **TLV Basis - Critical Effects:** (CNS impairment; lung damage; upper respiratory tract irritation)
- Clay (Proprietary): **TLV Basis - Critical Effects:** (pneumoconiosis)
- Titanium dioxide (13463-67-7): **TLV Basis - Critical Effects:** (lower respiratory tract irritation)
- Cristobalite (14464-46-1): **TLV Basis - Critical Effects:** (lung cancer; pulmonary fibrosis)
- Quartz (14808-60-7): **TLV Basis - Critical Effects:** (lung cancer; pulmonary fibrosis)
- Silicon carbide (409-21-2): **TLV Basis - Critical Effects:** (upper respiratory tract irritation (nonfibrous); cancer (fibrous, including whiskers); mesothelioma (fibrous, including whiskers))
- Benzo(a)pyrene (50-32-8): **BEIs:** (Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)) | **TLV Basis - Critical Effects:** (cancer) | **No Adopted Value:** (Exposure by all routes should be carefully controlled to levels as low as possible)
- Graphite (7782-42-5): **TLV Basis - Critical Effects:** (pneumoconiosis (all forms except graphite fibers))
- Naphthalene (91-20-3): **BEIs:** (Time: end of shift Parameter: 1-Naphthol with hydrolysis plus 2-Naphthol with hydrolysis (nonquantitative, nonspecific)) | **TLV Basis - Critical Effects:** (cataract; upper respiratory tract irritation; hemolytic anemia)
- Chrysene (218-01-9): **BEIs:** (Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)) | **TLV Basis - Critical Effects:** (cancer) | **No Adopted Value:** (Exposure by all routes should be carefully controlled to levels as low as possible)
- Benz(a)anthracene (56-55-3): **BEIs:** (Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)) | **TLV Basis - Critical Effects:** (skin cancer) | **No Adopted Value:** (Exposure by all routes should be carefully controlled to levels as low as possible)

Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Skin/Body

- Wear long sleeves and/or protective coveralls.

General Industrial Hygiene Considerations

- Handle in accordance with good industrial hygiene and safety practice. Do not get in eyes or on skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Dispose of in an approved landfill.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

STEV = Short Term Exposure Value

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration
 STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

| Material Description | | | |
|-------------------------------------|--|------------------------------|----------------------------|
| Physical Form | Solid | Appearance/Description | Dark, granular dry powder. |
| Color | Dark | Odor | No data available |
| Particulate Size | 600 µ | Odor Threshold | No data available |
| General Properties | | | |
| Boiling Point | No data available | Melting Point/Freezing Point | No data available |
| Decomposition Temperature | No data available | pH | No data available |
| Specific Gravity/Relative Density | 2.7 to 2.9 Water=1 | Water Solubility | Negligible < 0.1 % |
| Viscosity | No data available | | |
| Volatility | | | |
| Vapor Pressure | No data available | Vapor Density | No data available |
| Evaporation Rate | No data available | VOC (Wt.) | No data available |
| Flammability | | | |
| Flash Point | 145 °F(62.7778 °C) Calculated Flash Point | UEL | No data available |
| LEL | No data available | Autoignition | No data available |
| Flammability (solid, gas) | No data available | | |
| Environmental | | | |
| Octanol/Water Partition coefficient | No data available | | |

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- No data available.

Incompatible materials

- No data available

Hazardous decomposition products

- No data available

Section 11 - Toxicological Information

Information on toxicological effects

| Components | | |
|-------------------------------------|-------------|---|
| Wetting Agent (0.3% TO 1%) | Proprietary | Acute Toxicity: Ingestion/Oral-Rat LD50 • >5 g/kg; Skin-Rabbit LD50 • >5 g/kg |
| Clay (3.23% TO 8.096%) | Proprietary | Multi-dose Toxicity: Inhalation-Rat TClO • 30 mg/m ³ 96 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:</i> Fibrosis (interstitial); Lungs, Thorax, or Respiration:Other changes; Lungs, Thorax, or Respiration:Tumors; Reproductive: Ingestion/Oral-Rat TDLo • 370 g/kg (37D pre/1-22D preg); <i>Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Effects on Newborn:Other neonatal measures or effects.</i> |
| Titanium dioxide (0.197% TO 1.162%) | 13463-67-7 | Irritation: Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation; Tumorigen / Carcinogen: Inhalation-Rat TClO • 250 mg/m ³ 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors</i> |
| Wetting Agent (< 0.525%) | Proprietary | Acute Toxicity: Ingestion/Oral-Rat LD50 • 1900 mg/kg; Irritation: Skin-Rabbit • 10 mg 24 Hour(s) • Moderate irritation; Reproductive: Ingestion/Oral-Rat TDLo • 8820 mg/kg (multigeneration); <i>Reproductive Effects:Effects on Newborn:Other postnatal measures or effects</i> |
| Wetting Agent (0.24% TO 0.92%) | Proprietary | Acute Toxicity: Ingestion/Oral-Rat LD50 • 11300 mg/kg |
| Antioxidant (0.2% TO 2.75%) | Proprietary | Acute Toxicity: Ingestion/Oral-Rat LD50 • 30 g/kg; <i>Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain;</i> Multi-dose Toxicity: Inhalation-Rat TClO • 150 mg/m ³ 4 Hour(s) 78 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Other changes; Liver:Other changes; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain</i> |
| Silicon (0.45% TO 4%) | 7440-21-3 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 3160 mg/kg; Irritation: Eye-Rabbit • 3 mg • Mild irritation |
| Resin (1% TO 2%) | Proprietary | Acute Toxicity: Ingestion/Oral-Rat LD50 • >5 g/kg; Skin-Rat LD50 • >2 g/kg |
| Naphthalene (< 0.2%) | 91-20-3 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 490 mg/kg; Skin-Rabbit LD50 • >20 g/kg; Skin-Rabbit TDLo • 0.03 mL/kg 24 Hour(s); <i>Vascular:Measurement of regional blood flow</i> |
| 1,2,3-Trimethylbenzene (< 0.16%) | 526-73-8 | Acute Toxicity: Ingestion/Oral-Rat LDLo • 10 mL/kg; <i>Lungs, Thorax, or Respiration:Fibrosis, focal (pneumoconiosis); Lungs, Thorax, or Respiration:Acute pulmonary edema; Blood:Hemorrhage;</i> Multi-dose Toxicity: Inhalation-Rat TClO • 100 ppm 6 Hour(s) 20 Day(s)-Intermittent; <i>Behavioral:Alteration of classical conditioning;</i> Inhalation-Rat TClO • 20 mg/m ³ 16 Week(s)-Continuous; <i>Kidney, Ureter, and Bladder:Other changes in urine composition;</i> Mutagen: Sister chromatid exchange • Intraperitoneal-Mouse • 730 mg/kg; Mutation in microorganisms • Unreported Route-Salmonella typhimurium • 5 µg/plate (-S9) |
| 1,2,4-Trimethylbenzene (< 0.12%) | 95-63-6 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 5 g/kg; Inhalation-Rat LC50 • 18000 mg/m ³ 4 Hour(s); Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 6400 mg/kg 8 Week(s)-Intermittent; <i>Peripheral Nerve and Sensation:Recording from afferent nerve; Peripheral Nerve and Sensation:Recording from peripheral motor nerve; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain;</i> Ingestion/Oral-Rat TDLo • 19600 mg/kg 4 Week(s)-Intermittent; <i>Brain and Coverings:Recordings from specific areas of CNS; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain;</i> Inhalation-Rat TClO • 100 ppm 6 Hour(s) 20 Day(s)-Intermittent; <i>Behavioral:Changes in motor activity (specific assay); Behavioral:Analgesia; Behavioral:Alteration of operant conditioning;</i> Inhalation-Rat TClO • 20 mg/m ³ 24 Hour(s) 17 Week(s)-Intermittent; <i>Kidney, Ureter, and Bladder:Other changes in urine composition; Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:Catalases</i> |

| GHS Properties | Classification |
|--------------------------------------|-----------------------------------|
| Acute toxicity | OSHA HCS 2012 • No data available |
| Skin corrosion/Irritation | OSHA HCS 2012 • Skin Corrosion 1 |
| Serious eye damage/Irritation | OSHA HCS 2012 • Eye Irritation 2 |
| Skin sensitization | OSHA HCS 2012 • Skin Sensitizer 1 |

| | |
|----------------------------------|--|
| Respiratory sensitization | OSHA HCS 2012 • No data available |
| Aspiration Hazard | OSHA HCS 2012 • No data available |
| Carcinogenicity | OSHA HCS 2012 • Carcinogenicity 1A |
| Germ Cell Mutagenicity | OSHA HCS 2012 • Germ Cell Mutagenicity 1A |
| Toxicity for Reproduction | OSHA HCS 2012 • Toxic to Reproduction 1A |
| STOT-SE | OSHA HCS 2012 • No data available |
| STOT-RE | OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1 |

Target Organs

- [[206]]

Route(s) of entry/exposure

- Inhalation, Skin, Eye, and Ingestion

Medical Conditions Aggravated by Exposure

- Any pre-existing conditions of the lungs.

Potential Health Effects

Inhalation

Acute (Immediate)

- Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)

- Chronic overexposure to dust containing respirable sized crystalline silica can cause delayed lung injury (silicosis).

Skin

Acute (Immediate)

- May cause skin sensitization. Symptoms include redness, and skin rash. Exposure to dust may cause mechanical irritation.

Chronic (Delayed)

- No data available.

Eye

Acute (Immediate)

- Causes serious eye irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Chronic (Delayed)

- No data available.

Mutagenic Effects

- Repeated and prolonged exposure may cause mutagenic effects.

Carcinogenic Effects

- May cause cancer.

| Carcinogenic Effects | | | |
|-----------------------------|------------|------------------------------|---|
| | CAS | IARC | NTP |
| Benzo(ghi)perylene | 191-24-2 | Group 3-Not Classifiable | Not Listed |
| Benz(a)anthracene | 56-55-3 | Group 2B-Possible Carcinogen | Not Listed |
| Benzo(j)fluoranthene | 205-82-3 | Group 2B-Possible Carcinogen | Not Listed |
| Chrysene, 5-methyl- | 3697-24-3 | Group 2B-Possible Carcinogen | Not Listed |
| Benzo(a)pyrene | 50-32-8 | Group 1-Carcinogenic | Reasonably Anticipated to be Human Carcinogen |
| Cristobalite | 14464-46-1 | Group 1-Carcinogenic | Not Listed |
| Phenol | 108-95-2 | Group 3-Not Classifiable | Not Listed |
| Titanium dioxide | 13463-67-7 | Group 2B-Possible Carcinogen | Not Listed |
| Naphthalene | 91-20-3 | Group 2B-Possible Carcinogen | Not Listed |
| Silicon carbide | 409-21-2 | Group 2A-Probable Carcinogen | Not Listed |
| Quartz | 14808-60-7 | Group 1-Carcinogenic | Known Human Carcinogen |

Reproductive Effects

- Repeated and prolonged exposure may cause reproductive effects.

Key to abbreviations

LD = Lethal Dose
 TC = Toxic Concentration
 TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

| | CAS | |
|-----------------------|-----|--|
| Envirostop ASC-5513 H | NDA | Aquatic Toxicity-Fish: 96 Hour(s) <i>Oncorhynchus mykiss</i> (rainbow trout) >2 mg/L Aquatic Toxicity-Crustacea: 48 Hour(s) Water Flea <i>Daphnia magna</i> (Water flea) 1.4 mg/L Aquatic Toxicity-Algae and Other Aquatic Plant(s): 72 Hour(s) Algae <i>Pseudokirchneriella subcapitata</i> (green algae) 1-3 mg/L |

- Material data lacking.

Persistence and degradability

- Material data lacking.

Bioaccumulative potential

- Material data lacking.

Mobility in Soil

- Material data lacking.

Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

| | UN number | UN proper shipping name | Transport hazard class (es) | Packing group | Environmental hazards |
|-----------|-----------|-------------------------|-----------------------------|---------------|-----------------------|
| DOT | NDA | Not Regulated | NDA | NDA | NDA |
| TDG | NDA | Not Regulated | NDA | NDA | NDA |
| IATA/ICAO | NDA | Not Regulated | NDA | NDA | NDA |

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
SARA Hazard Classifications • Acute, Chronic

| State Right To Know | | | | |
|-------------------------------|--------------------|-----|-----|-----|
| Component | CAS | MA | NJ | PA |
| 1,2,3-Trimethylbenzene | 526-73-8 | No | No | No |
| 1,2,4-Trimethylbenzene | 95-63-6 | Yes | Yes | Yes |
| Wetting Agent | <i>Proprietary</i> | No | No | No |
| Wetting Agent | <i>Proprietary</i> | No | No | No |
| Aluminum oxide | 1344-28-1 | Yes | Yes | Yes |
| Aluminum(III) silicate (2:1) | 1302-76-7 | No | No | No |
| Benz(a)anthracene | 56-55-3 | Yes | Yes | Yes |
| Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | No | No | No |
| Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | No | No | No |
| Benzene, 1,4-diethyl- | 105-05-5 | Yes | No | Yes |
| Benzene, diethyl- | 25340-17-4 | No | Yes | No |
| Benzene, m-diethyl- | 141-93-5 | Yes | No | Yes |
| Benzene, tert-butyl- | 98-06-6 | Yes | Yes | Yes |
| Benzo(a)pyrene | 50-32-8 | Yes | Yes | Yes |
| Benzo(ghi)perylene | 191-24-2 | Yes | Yes | Yes |
| Benzo(j)fluoranthene | 205-82-3 | Yes | Yes | Yes |
| Wetting Agent | <i>Proprietary</i> | No | No | No |
| Chrysene | 218-01-9 | Yes | Yes | Yes |
| Chrysene, 5-methyl- | 3697-24-3 | Yes | Yes | Yes |
| Carbon Coke | <i>Proprietary</i> | No | No | No |
| Cristobalite | 14464-46-1 | Yes | Yes | Yes |
| Graphite | 7782-42-5 | Yes | Yes | Yes |
| Indan | 496-11-7 | No | No | No |
| Antioxidant | <i>Proprietary</i> | No | No | No |
| Clay | <i>Proprietary</i> | Yes | Yes | Yes |
| Naphthalene | 91-20-3 | Yes | Yes | Yes |
| Phenol | 108-95-2 | Yes | Yes | Yes |
| Resin | <i>Proprietary</i> | No | No | No |
| Pitch | 68187-58-6 | No | No | No |
| PROPYLTOLUENE | 1074-43-7 | No | No | No |
| Quartz | 14808-60-7 | Yes | Yes | Yes |
| Amorphous silica fume | 69012-64-2 | No | No | No |
| Silicon | 7440-21-3 | Yes | Yes | Yes |

| | | | | |
|------------------|--------------------|-----|-----|-----|
| Silicon carbide | 409-21-2 | Yes | Yes | Yes |
| Solvent naphtha | 64742-94-5 | No | No | No |
| Wetting Agent | <i>Proprietary</i> | No | No | No |
| Titanium dioxide | 13463-67-7 | Yes | Yes | Yes |
| Water | 7732-18-5 | No | No | No |
| Zirconium oxide | 1314-23-4 | Yes | No | No |

| Inventory | | | | |
|-------------------------------|--------------------|------------|-------------|------|
| Component | CAS | Canada DSL | Canada NDSL | TSCA |
| 1,2,3-Trimethylbenzene | 526-73-8 | Yes | No | Yes |
| 1,2,4-Trimethylbenzene | 95-63-6 | Yes | No | Yes |
| Wetting Agent | <i>Proprietary</i> | Yes | No | Yes |
| Wetting Agent | <i>Proprietary</i> | Yes | No | Yes |
| Aluminum oxide | 1344-28-1 | Yes | No | Yes |
| Aluminum(III) silicate (2:1) | 1302-76-7 | Yes | No | No |
| Benz(a)anthracene | 56-55-3 | No | Yes | Yes |
| Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Yes | No | Yes |
| Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Yes | No | Yes |
| Benzene, 1,4-diethyl- | 105-05-5 | No | Yes | Yes |
| Benzene, diethyl- | 25340-17-4 | Yes | No | Yes |
| Benzene, m-diethyl- | 141-93-5 | No | Yes | Yes |
| Benzene, tert-butyl- | 98-06-6 | Yes | No | Yes |
| Benzo(a)pyrene | 50-32-8 | Yes | No | Yes |
| Benzo(ghi)perylene | 191-24-2 | No | No | No |
| Benzo(j)fluoranthene | 205-82-3 | No | No | No |
| Wetting Agent | <i>Proprietary</i> | Yes | No | Yes |
| Chrysene | 218-01-9 | Yes | No | Yes |
| Chrysene, 5-methyl- | 3697-24-3 | No | No | No |
| Carbon Coke | <i>Proprietary</i> | Yes | No | Yes |
| Cristobalite | 14464-46-1 | Yes | No | Yes |
| Graphite | 7782-42-5 | Yes | No | Yes |
| Indan | 496-11-7 | No | Yes | Yes |
| Antioxidant | <i>Proprietary</i> | Yes | No | Yes |
| Clay | <i>Proprietary</i> | Yes | No | Yes |
| Naphthalene | 91-20-3 | Yes | No | Yes |
| Phenol | 108-95-2 | Yes | No | Yes |
| Resin | <i>Proprietary</i> | Yes | No | Yes |
| Pitch | 68187-58-6 | Yes | No | Yes |

| PROPYLTOLUENE | 1074-43-7 | No | Yes | Yes |
|-----------------------|--------------------|-----|-----|-----|
| Quartz | 14808-60-7 | Yes | No | Yes |
| Amorphous silica fume | 69012-64-2 | Yes | No | Yes |
| Silicon | 7440-21-3 | Yes | No | Yes |
| Silicon carbide | 409-21-2 | Yes | No | Yes |
| Solvent naphtha | 64742-94-5 | Yes | No | Yes |
| Wetting Agent | <i>Proprietary</i> | Yes | No | Yes |
| Titanium dioxide | 13463-67-7 | Yes | No | Yes |
| Water | 7732-18-5 | Yes | No | Yes |
| Zirconium oxide | 1314-23-4 | Yes | No | Yes |

Canada

Labor

Canada - WHMIS 1988 - Classifications of Substances

| | | |
|--------------------------|--------------------|---|
| • Benz(a)anthracene | 56-55-3 | D2A, D2B |
| • Benzo(a)pyrene | 50-32-8 | D2A |
| • Chrysene | 218-01-9 | Not Listed |
| • 1,2,3-Trimethylbenzene | 526-73-8 | B3 |
| • Naphthalene | 91-20-3 | B4, D2A |
| • Clay | <i>Proprietary</i> | D2A |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | D1A, E |
| • Titanium dioxide | 13463-67-7 | D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Titanium dioxide, mixture containing on Health Canada's WHMIS Division website.) |
| • Aluminum oxide | 1344-28-1 | Uncontrolled product according to WHMIS classification criteria |
| • Silicon | 7440-21-3 | B4 |
| • Silicon carbide | 409-21-2 | Uncontrolled product according to WHMIS classification criteria |
| • 1,2,4-Trimethylbenzene | 95-63-6 | B3 |
| • Antioxidant | <i>Proprietary</i> | Uncontrolled product according to WHMIS classification criteria |
| • Cristobalite | 14464-46-1 | D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.) |

| | | |
|---------------------------------|--------------------|--|
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Uncontrolled product according to WHMIS classification criteria |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Uncontrolled product according to WHMIS classification criteria |
| • Chrysene, 5-methyl- | 3697-24-3 | D2A |
| • Benzo(j)fluoranthene | 205-82-3 | D2A, D2B |
| • Benzene, tert-butyl- | 98-06-6 | B2, D2B |
| | | D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.) |
| • Quartz | 14808-60-7 | |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | D2A (natural); D2B (synthetic) |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Uncontrolled product according to WHMIS classification criteria |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

Canada - WHMIS 1988 - Ingredient Disclosure List

| | | |
|--------------------------|--------------------|------------|
| • Benz(a)anthracene | 56-55-3 | 0.1 % |
| • Benzo(a)pyrene | 50-32-8 | 0.1 % |
| • Chrysene | 218-01-9 | 0.1 % |
| • 1,2,3-Trimethylbenzene | 526-73-8 | 1 % |
| • Naphthalene | 91-20-3 | 1 % |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | 1 % |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | 1 % |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | 1 % |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | 0.1 % |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | 1 % |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |

| | | |
|---------------------------------|--------------------|------------|
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | 1 % |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | 1 % |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | 1 % |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | 1 % |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

Environment

Canada - CEPA - Priority Substances List

| | | |
|--------------------------|--------------------|---|
| • Benz(a)anthracene | 56-55-3 | Not Listed |
| • Benzo(a)pyrene | 50-32-8 | Not Listed |
| • Chrysene | 218-01-9 | Not Listed |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | Not Listed |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | Priority Substance List 2 (substance not considered toxic) |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |

| | | |
|---------------------------------|-----------|------------|
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

Canada - CEPA - Schedule I - List of Toxic Substances

| | | |
|---------------------------------|--------------------|------------|
| • Benz(a)anthracene | 56-55-3 | Not Listed |
| • Benzo(a)pyrene | 50-32-8 | Not Listed |
| • Chrysene | 218-01-9 | Not Listed |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

United States

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

| | | |
|---------------------------------|--------------------|------------|
| • Benz(a)anthracene | 56-55-3 | Not Listed |
| • Benzo(a)pyrene | 50-32-8 | Not Listed |
| • Chrysene | 218-01-9 | Not Listed |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

| | | |
|--------------------------|--------------------|-----------------------------------|
| • Benz(a)anthracene | 56-55-3 | 10 lb final RQ; 4.54 kg final RQ |
| • Benzo(a)pyrene | 50-32-8 | 1 lb final RQ; 0.454 kg final RQ |
| • Chrysene | 218-01-9 | 100 lb final RQ; 45.4 kg final RQ |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | 100 lb final RQ; 45.4 kg final RQ |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |

| | | |
|---------------------------------|--------------------|------------------------------------|
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | 1000 lb final RQ; 454 kg final RQ |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | 5000 lb final RQ; 2270 kg final RQ |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYLTOLUENE | 1074-43-7 | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

| | | |
|--------------------------|--------------------|------------------|
| • Benz(a)anthracene | 56-55-3 | Not Listed |
| • Benzo(a)pyrene | 50-32-8 | Not Listed |
| • Chrysene | 218-01-9 | Not Listed |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | Not Listed |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | 1000 lb EPCRA RQ |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |

| | | |
|---------------------------------|--------------------|------------|
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

| | | |
|--------------------------------|--------------------|--------------------------------------|
| • Benz(a)anthracene | 56-55-3 | Not Listed |
| • Benzo(a)pyrene | 50-32-8 | Not Listed |
| • Chrysene | 218-01-9 | Not Listed |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | Not Listed |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | 500 lb lower TPQ; 10000 lb upper TPQ |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |

| | | |
|---------------------------------|-----------|------------|
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

| | | |
|--------------------------|--------------------|--|
| • Benz(a)anthracene | 56-55-3 | 0.1 % Supplier notification limit (listed under Chemical Category N590, Polycyclic aromatic compounds) |
| • Benzo(a)pyrene | 50-32-8 | 0.1 % Supplier notification limit (listed under Chemical Category N590, Polycyclic aromatic compounds) |
| • Chrysene | 218-01-9 | 1.0 % Supplier notification limit (listed under Chemical Category N590, Polycyclic aromatic compounds) |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | 0.1 % de minimis concentration |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | 1.0 % de minimis concentration |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | 1.0 % de minimis concentration (fibrous forms) |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | 1.0 % de minimis concentration |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | 1.0 % Supplier notification limit |
| • Chrysene, 5-methyl- | 3697-24-3 | 0.1 % Supplier notification limit (listed under Chemical Category N590, Polycyclic aromatic compounds) |
| • Benzo(j)fluoranthene | 205-82-3 | 0.1 % Supplier notification limit (listed under Chemical Category N590, Polycyclic aromatic compounds) |

| | | |
|---------------------------------|------------|------------|
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYLTOLUENE | 1074-43-7 | Not Listed |

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

| | | |
|--------------------------------|--------------------|--|
| • Benz(a)anthracene | 56-55-3 | 100 lb RT (listed under Polycyclic aromatic compounds) |
| • Benzo(a)pyrene | 50-32-8 | 100 lb RT (listed under Polycyclic aromatic compounds) |
| • Chrysene | 218-01-9 | 100 lb RT (listed under Polycyclic aromatic compounds) |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | Not Listed |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | 10 lb RT |
| • Chrysene, 5-methyl- | 3697-24-3 | 100 lb RT (listed under Polycyclic aromatic compounds) |
| • Benzo(j)fluoranthene | 205-82-3 | 100 lb RT (listed under Polycyclic aromatic compounds) |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |

| | | |
|---|--------------------|---|
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYLTOLUENE | 1074-43-7 | Not Listed |
| U.S. - EPA - Designated Generic Categories - Pesticides and Other PBTs | | |
| • Benz(a)anthracene | 56-55-3 | Not Listed |
| • Benzo(a)pyrene | 50-32-8 | Not Listed |
| • Chrysene | 218-01-9 | Not Listed |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | Not Listed |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | 10 lb Reporting Threshold (Benzo(g,h,i)perylene is a polycyclic aromatic compound; however, it is listed separately on the EPCRA Section 313 chemical list and is not part of the polycyclic aromatic compound chemical category.) |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYLTOLUENE | 1074-43-7 | Not Listed |

U.S. - EPA - Designated Generic Categories - Polycyclic Aromatic Compounds

| | | |
|---------------------------------|--------------------|------------|
| • Benz(a)anthracene | 56-55-3 | |
| • Benzo(a)pyrene | 50-32-8 | |
| • Chrysene | 218-01-9 | |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | Not Listed |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | |
| • Benzo(j)fluoranthene | 205-82-3 | |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYLTOLUENE | 1074-43-7 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

| | | |
|--------------------------|----------|---|
| • Benz(a)anthracene | 56-55-3 | Included in waste streams: F032, F034, F039, K001, K035, K141, K142, K143, K144, K145, K147, K148, K170 |
| • Benzo(a)pyrene | 50-32-8 | Included in waste streams: F032, F034, F037, F038, F039, K001, K035, K141, K142, K144, K145, K147, K148, K170 |
| • Chrysene | 218-01-9 | Included in waste streams: F037, F038, F039, K001, K035 |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |

| | | |
|---------------------------------|--------------------|---|
| • Naphthalene | 91-20-3 | Included in waste streams: F024, F025, F034, F039, K001, K035, K060, K087, K145 |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | Included in waste streams: F039, K001, K022, K087 |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Included in waste stream: F039 |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

| | | |
|--------------------------|--------------------|-------------------|
| • Benz(a)anthracene | 56-55-3 | waste number U018 |
| • Benzo(a)pyrene | 50-32-8 | waste number U022 |
| • Chrysene | 218-01-9 | waste number U050 |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | waste number U165 |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | waste number U188 |
| • Titanium dioxide | 13463-67-7 | Not Listed |

| | | |
|---------------------------------|--------------------|---|
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | hazardous constituent - no waste number |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYLTOLUENE | 1074-43-7 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

| | | |
|--------------------------|--------------------|------------|
| • Benz(a)anthracene | 56-55-3 | |
| • Benzo(a)pyrene | 50-32-8 | |
| • Chrysene | 218-01-9 | |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |

| | | |
|---------------------------------|------------|------------|
| • Benzo(ghi)perylene | 191-24-2 | |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

| | | |
|--------------------------------|--------------------|---|
| • Benz(a)anthracene | 56-55-3 | 0.059 mg/L (wastewater); 3.4 mg/kg (nonwastewater) |
| • Benzo(a)pyrene | 50-32-8 | 0.061 mg/L (wastewater); 3.4 mg/kg (nonwastewater) |
| • Chrysene | 218-01-9 | 0.059 mg/L (wastewater); 3.4 mg/kg (nonwastewater) |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | 0.059 mg/L (wastewater); 5.6 mg/kg (nonwastewater) |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | 0.039 mg/L (wastewater); 6.2 mg/kg (nonwastewater) |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | 0.0055 mg/L (wastewater); 1.8 mg/kg (nonwastewater) |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |

| | | |
|---------------------------------|-----------|------------|
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

| | | |
|---------------------------------|--------------------|------------|
| • Benz(a)anthracene | 56-55-3 | |
| • Benzo(a)pyrene | 50-32-8 | |
| • Chrysene | 218-01-9 | |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous

Characteristics

| | | |
|--------------------------|----------|-------------------|
| • Benz(a)anthracene | 56-55-3 | waste number U018 |
| • Benzo(a)pyrene | 50-32-8 | waste number U022 |
| • Chrysene | 218-01-9 | waste number U050 |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |

| | | |
|---------------------------------|--------------------|-------------------|
| • Naphthalene | 91-20-3 | waste number U165 |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | waste number U188 |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | Not Listed |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

| | | |
|--------------------------|--------------------|---|
| • Benz(a)anthracene | 56-55-3 | carcinogen, 7/1/1987 |
| • Benzo(a)pyrene | 50-32-8 | carcinogen, 7/1/1987 |
| • Chrysene | 218-01-9 | carcinogen, 1/1/1990 |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | carcinogen, 4/19/2002 |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | Not Listed |
| • Titanium dioxide | 13463-67-7 | carcinogen, 9/2/2011 (airborne, unbound particles of |

| | | |
|---------------------------------|--------------------|----------------------|
| | | respirable size) |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | carcinogen, 4/1/1988 |
| • Benzo(j)fluoranthene | 205-82-3 | carcinogen, 7/1/1987 |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYLTOLUENE | 1074-43-7 | Not Listed |

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

| | | |
|--------------------------|--------------------|--------------------------|
| • Benz(a)anthracene | 56-55-3 | 0.033 µg/day NSRL (oral) |
| • Benzo(a)pyrene | 50-32-8 | 0.06 µg/day NSRL |
| • Chrysene | 218-01-9 | 0.35 µg/day NSRL (oral) |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | 5.8 µg/day NSRL |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |

| | | |
|---------------------------------|------------|---------------------------|
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | 0.0084 µg/day NSRL (oral) |
| • Benzo(j)fluoranthene | 205-82-3 | 0.11 µg/day NSRL (oral) |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

| | | |
|---------------------------------|--------------------|------------|
| • Benz(a)anthracene | 56-55-3 | |
| • Benzo(a)pyrene | 50-32-8 | |
| • Chrysene | 218-01-9 | |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | |
| • Chrysene, 5-methyl- | 3697-24-3 | Not Listed |
| • Benzo(j)fluoranthene | 205-82-3 | |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |

| | | |
|---------------------------------|-----------|------------|
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

| | | |
|---------------------------------|--------------------|------------|
| • Benz(a)anthracene | 56-55-3 | |
| • Benzo(a)pyrene | 50-32-8 | |
| • Chrysene | 218-01-9 | Not Listed |
| • 1,2,3-Trimethylbenzene | 526-73-8 | Not Listed |
| • Naphthalene | 91-20-3 | Not Listed |
| • Clay | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Wetting Agent | <i>Proprietary</i> | Not Listed |
| • Amorphous silica fume | 69012-64-2 | Not Listed |
| • Phenol | 108-95-2 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Silicon | 7440-21-3 | Not Listed |
| • Silicon carbide | 409-21-2 | Not Listed |
| • 1,2,4-Trimethylbenzene | 95-63-6 | Not Listed |
| • Antioxidant | <i>Proprietary</i> | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Carbon Coke | <i>Proprietary</i> | Not Listed |
| • Zirconium oxide | 1314-23-4 | Not Listed |
| • Solvent naphtha | 64742-94-5 | Not Listed |
| • Resin | <i>Proprietary</i> | Not Listed |
| • Benzene, diethyl- | 25340-17-4 | Not Listed |
| • Pitch | 68187-58-6 | Not Listed |
| • Benzo(ghi)perylene | 191-24-2 | Not Listed |
| • Chrysene, 5-methyl- | 3697-24-3 | |
| • Benzo(j)fluoranthene | 205-82-3 | |
| • Benzene, tert-butyl- | 98-06-6 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Aluminum(III) silicate (2:1) | 1302-76-7 | Not Listed |
| • Graphite | 7782-42-5 | Not Listed |
| • Indan | 496-11-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Benzene, 1,2,3,4-tetramethyl- | 488-23-3 | Not Listed |
| • Benzene, 1,2,3,5-tetramethyl- | 527-53-7 | Not Listed |
| • Benzene, 1,4-diethyl- | 105-05-5 | Not Listed |
| • Benzene, m-diethyl- | 141-93-5 | Not Listed |
| • PROPYL TOLUENE | 1074-43-7 | Not Listed |

Other Information

- **WARNING:** This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

- Revision Date** • 26/April/2018
- Last Revision Date** • 03/May/2017
- Preparation Date** • 28/August/2015
- Disclaimer/Statement of Liability** • The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release. Reno Refractories MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Key to abbreviations

NDA = No data available