

SAFETY DATA SHEET

1. Identification

Material name: TREMFIX A.F. 5 US GL

Material: 350715 805

Recommended use and restriction on use

Recommended use: Coatings

Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S. Roofing
3735 Green Road
Beachwood OH 44122
US

Contact person:

EH&S Department

Telephone:

216-292-5000

Emergency telephone number:

1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Skin sensitizer	Category 1
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1A
Toxic to reproduction	Category 1B

Unknown toxicity - Health

Acute toxicity, oral	18.96 %
Acute toxicity, dermal	18.97 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	100 %

Environmental Hazards

Acute hazards to the aquatic environment	Category 1
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Unknown toxicity - Environment

Acute hazards to the aquatic environment	94.5 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: May cause an allergic skin reaction.
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.
Very toxic to aquatic life.

Precautionary Statements

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.

Response: IF ON SKIN: Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Specific treatment (see on this label). Wash contaminated clothing before reuse. Collect spillage.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
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Coal tar pitch	65996-93-2	50 - <100%
Calcium Carbonate (Limestone)	1317-65-3	5 - <10%
Cellulose	9004-34-6	1 - <5%
Creosote	8001-58-9	1 - <5%
Phenanthrene	85-01-8	1 - <5%
Fluorathene	206-44-0	1 - <5%
Clay	1332-58-7	0.1 - <1%
Naphthalene	91-20-3	0.1 - <1%
Anthracene	120-12-7	0.001 - <1%
Indeno[1,2,3-cd]pyrene	193-39-5	0.1 - <1%
Benzo(a)anthracene	56-55-3	0.1 - <1%
Chrysene	218-01-9	0.1 - <1%
Benzo(a)pyrene	50-32-8	0.3 - <1%
Acenaphthene	83-32-9	0.1 - <1%
Dibenzofuran	132-64-9	0.1 - <1%
Benzo(b)fluoranthene/benzo[e]acefenantrileno	205-99-2	0.1 - <1%
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	0.1 - <1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

- Ingestion:** Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
- Inhalation:** Move to fresh air.
- Skin Contact:** Get medical attention if symptoms occur. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
- Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters
Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Coal tar pitch - Aerosol. - as benzene solubles	TWA	0.2 mg/m ³	US. ACGIH Threshold Limit Values (2011)
Coal tar pitch	PEL	0.2 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium Carbonate (Limestone) - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium Carbonate (Limestone) - Respirable fraction.	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Cellulose	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values (2011)
Cellulose - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Cellulose - Respirable fraction.	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Clay - Respirable fraction.	TWA	2 mg/m ³	US. ACGIH Threshold Limit Values (2011)
	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Clay - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Clay - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	5 mg/m ³	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Clay - Total dust.	TWA	15 mg/m ³	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	10 ppm	US. ACGIH Threshold Limit Values (2011)
Naphthalene	PEL	10 ppm 50 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	0.025 mg/m ³	US. ACGIH Threshold Limit Values (2011)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.05 mg/m ³	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
	OSHA_AC T	0.025 mg/m ³	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	PEL	0.05 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m ³	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)

Chemical name	Type	Exposure Limit Values	Source
Coal tar pitch - Aerosol. - as benzene solubles	TWA	0.2 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Coal tar pitch - Aerosol. - as benzene solubles	TWA	0.2 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Coal tar pitch - as benzene solubles	TWA	0.2 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Calcium Carbonate (Limestone) - Total dust.	STEL	20 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	10 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Respirable fraction.	TWA	3 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Total dust.	TWA	10 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Cellulose - Respirable fraction.	TWA	3 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Cellulose - Total dust.	TWA	10 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Cellulose	TWA	10 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Cellulose - Total dust.	TWA	10 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Naphthalene	STEL	15 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	10 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Naphthalene	TWA	10 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	15 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Naphthalene	TWA	10 ppm 52 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	STEL	15 ppm 79 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)

Benzo(a)pyrene	TWA	0.005 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.10 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Benzo(a)anthracene (1-Hydroxypyrene, with hydrolysis (1-HP): Sampling time: End of shift at end of work week.)	2.5 µg/l (Urine)	ACGIH BEI (03 2017)
Chrysene (1-Hydroxypyrene, with hydrolysis (1-HP): Sampling time: End of shift at end of work week.)	2.5 µg/l (Urine)	ACGIH BEI (03 2017)
Benzo(a)pyrene (1-Hydroxypyrene, with hydrolysis (1-HP): Sampling time: End of shift at end of work week.)	2.5 µg/l (Urine)	ACGIH BEI (03 2017)
Benzo(b)fluoranthene/benzo[e]acefenantrileno (1-Hydroxypyrene, with hydrolysis (1-HP): Sampling time: End of shift at end of work week.)	2.5 µg/l (Urine)	ACGIH BEI (03 2017)

Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Black
Odor:	Aromatic
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	150 °C 302 °F
Flash Point:	> 93 °C > 199 °F
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.26
Solubility(ies)	
Solubility in water:	Practically Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
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Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates).
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. May cause an allergic skin reaction.
Eye contact:	Eye contact is possible and should be avoided.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral	
Product:	725.00 mg/kg ATEmix : 16,695.42 mg/kg
Dermal	
Product:	ATEmix: 2,186.07 mg/kg
Inhalation	
Product:	
Specified substance(s):	
Cellulose	LC 50 (Rabbit): 20.1 mg/l

Repeated dose toxicity**Product:** No data available.**Skin Corrosion/Irritation****Product:** No data available.**Specified substance(s):**

Coal tar pitch in vivo (Rabbit): Not irritant Experimental result, Key study

Naphthalene in vivo (Rabbit): Not irritant Experimental result, Key study

Anthracene in vivo (Rabbit): Not irritant Experimental result, Key study

Serious Eye Damage/Eye Irritation**Product:** No data available.**Specified substance(s):**

Coal tar pitch Rabbit, 1 hrs: Not irritating

Anthracene Rabbit, 24 hrs: Not irritating

Respiratory or Skin Sensitization**Product:** No data available.**Carcinogenicity****Product:** No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Coal tar pitch	Overall evaluation: Carcinogenic to humans.
Creosote	Overall evaluation: Probably carcinogenic to humans.
Naphthalene	Overall evaluation: Possibly carcinogenic to humans.
Indeno[1,2,3-cd]pyrene	Overall evaluation: Possibly carcinogenic to humans.
Benzo(a)anthracene	Overall evaluation: Possibly carcinogenic to humans.
Chrysene	Overall evaluation: Possibly carcinogenic to humans.
Benzo(a)pyrene	Overall evaluation: Carcinogenic to humans.
Benzo(b)fluoranthene/benzo[e]acefenanthrieno	Overall evaluation: Possibly carcinogenic to humans.
Crystalline Silica (Quartz)/ Silica Sand	Overall evaluation: Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

Coal tar pitch	Known To Be Human Carcinogen.
Naphthalene	Reasonably Anticipated to be a Human Carcinogen.
Indeno[1,2,3-cd]pyrene	Reasonably Anticipated to be a Human Carcinogen.
Benzo(a)anthracene	Reasonably Anticipated to be a Human Carcinogen.
Benzo(a)pyrene	Reasonably Anticipated to be a Human Carcinogen.
Benzo(b)fluoranthene/benzo[e]acefenanthrieno	Reasonably Anticipated to be a Human Carcinogen.
Crystalline Silica (Quartz)/ Silica Sand	Known To Be Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Crystalline Silica (Quartz)/ Silica Sand	Cancer
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Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity

Product: May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Phenanthrene	LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 3.2 mg/l Mortality
Fluorathene	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 0.074 - 0.113 mg/l Mortality
Naphthalene	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 4.9 mg/l Mortality
Anthracene	LC 50 (Bluegill (Lepomis macrochirus), 96 h): 0.00594 - 0.00781 mg/l Mortality
Acenaphthene	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 0.52 - 0.71 mg/l Mortality

Dibenzofuran LC 50 (Sheepshead minnow (*Cyprinodon variegatus*), 48 h): > 3.2 mg/l Mortality
 LC 50 (Sheepshead minnow (*Cyprinodon variegatus*), 72 h): 2.6 - 4.2 mg/l Mortality
 LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 0.84 - 1.31 mg/l Mortality
 LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 1.04 - 1.25 mg/l Mortality
 LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 1.62 - 1.95 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Phenanthrene LC 50 (Water flea (*Daphnia magna*), 48 h): 0.59 - 0.84 mg/l Mortality

Fluorathene LC 50 (Water flea (*Daphnia magna*), 24 h): 1,000 - 1,600 mg/l Mortality
 EC 50 (Water flea (*Daphnia magna*), 7 d): > 0.01 - 0.012 mg/l Intoxication
 LC 50 (Purple-spined sea urchin (*Arbacia punctulata*), 48 h): > 0.127 mg/l Mortality
 EC 50 (Water flea (*Daphnia magna*), 7 d): > 0.01 - 0.015 mg/l Intoxication
 LC 50 (Purple-spined sea urchin (*Arbacia punctulata*), 96 h): > 0.033 mg/l Mortality

Naphthalene LC 50 (Water flea (*Daphnia magna*), 48 h): 3.4 mg/l Mortality

Anthracene EC 50 (Water flea (*Daphnia magna*), 24 h): 0.189 - 0.236 mg/l Intoxication
 LC 50 (Pacific oyster (*Crassostrea gigas*), 48 h): > 5 mg/l Mortality
 LC 50 (Clam (*Mulinia lateralis*), 96 h): > 13.3 mg/l Mortality

Benzo(a)anthracene LC 50 (Water flea (*Daphnia pulex*), 96 h): 0.01 mg/l Mortality

Chrysene LC 50 (Polychaete worm (*Nereis arenaceodentata*), 96 h): < 1 mg/l Mortality

Benzo(a)pyrene EC 50 (Water flea (*Daphnia magna*), 24 h): 0.032 - 0.049 mg/l Intoxication
 LC 50 (Scud (*Gammarus duebeni*), 48 h): < 150 mg/l Mortality
 LC 50 (Polychaete worm (*Nereis arenaceodentata*), 96 h): < 1 mg/l Mortality

Acenaphthene LC 50 (Water flea (*Daphnia magna*), 24 h): > 280 mg/l Mortality
 LC 50 (Snail (*Aplexa hypnorum*), 96 h): > 2.04 mg/l Mortality

Dibenzofuran LC 50 (Water flea (*Daphnia magna*), 24 h): 4.4 - 13 mg/l Mortality

Benzo(b)fluoranthene/be
nzo[e]acefenantrileno EC 50 (Water flea (*Daphnia magna*), 24 h): > 1.024 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Coal tar pitch LC 50 (Danio rerio, 42 d): > 4 µg/l Read-across from supporting substance (structural analogue or surrogate), Key study
 NOAEL (Danio rerio, 42 d): 4 µg/l Read-across from supporting substance

(structural analogue or surrogate), Key study

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Phenanthrene	Water flea (Daphnia pulex), Bioconcentration Factor (BCF): 325 (Static)
Fluorathene	Water flea (Daphnia magna), Bioconcentration Factor (BCF): 1,741.8 (Static)
Naphthalene	Rainbow trout, donaldson trout (Oncorhynchus mykiss), Bioconcentration Factor (BCF): 13,000 (Flow through)
Anthracene	Green algae (Chlorella fusca vacuolata), Bioconcentration Factor (BCF): 7,800 (Static)
Benzo(a)anthracene	Water flea (Daphnia pulex), Bioconcentration Factor (BCF): 10,109 (Static)
Chrysene	Water flea (Daphnia magna), Bioconcentration Factor (BCF): 6,088.4 (Static)
Benzo(a)pyrene	Water flea (Daphnia pulex), Bioconcentration Factor (BCF): 2,720 (Static)
Acenaphthene	Bluegill (Lepomis macrochirus), Bioconcentration Factor (BCF): 387 (Flow through)
Benzo(b)fluoranthene/benzo[e]acefenantrileno	Mussel (Mytilus edulis planulatus), Bioconcentration Factor (BCF): 5,200,000 (Lentic - static water system without measurable flow rate (e.g. lake)) Bioconcentration factor calculated using dry weight tissue conc

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Creosote	Log Kow: 1.0
Phenanthrene	Log Kow: 4.57

Fluorathene	Log Kow: 5.16
Naphthalene	Log Kow: 3.30
Anthracene	Log Kow: 4.45
Benzo(a)anthracene	Log Kow: 5.79
Chrysene	Log Kow: 5.73
Benzo(a)pyrene	Log Kow: 5.97
Acenaphthene	Log Kow: 3.92
Dibenzofuran	Log Kow: 4.12
Benzo(b)fluoranthene/be nzo[e]acefenantrileno	Log Kow: 6.60

Mobility in soil: No data available.

Other adverse effects: Very toxic to aquatic organisms.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Coal Tar), 9, PG III, MARINE POLLUTANT

Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Crystalline Silica	kidney effects
(Quartz)/ Silica Sand	lung effects
	immune system effects
	Cancer

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Creosote	1 lbs.
Fluorathene	100 lbs.
Phenanthrene	5000 lbs.
Naphthalene	100 lbs.
Anthracene	5000 lbs.
Indeno[1,2,3-cd]pyrene	100 lbs.
Benzo(a)anthracene	10 lbs.
Chrysene	100 lbs.
Benzo(a)pyrene	1 lbs.
Acenaphthene	100 lbs.
Dibenzofuran	100 lbs.
Benzo(b)fluoranthene/benzo[e]acefenantrileno	1 lbs.
Biphenyl	100 lbs.
Dibenz(a,h)anthracene	1 lbs.
Pyrene	5000 lbs.
Acenaphthylene	5000 lbs.
Fluorene	5000 lbs.
Quinoline	5000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard
- Skin sensitizer
- Germ Cell Mutagenicity
- Carcinogenicity
- Toxic to reproduction

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Pyrene	5000 lbs.	---

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Creosote	1 lbs.
Fluorathene	100 lbs.
Phenanthrene	5000 lbs.
Naphthalene	100 lbs.
Anthracene	5000 lbs.
Indeno[1,2,3-cd]pyrene	100 lbs.
Benzo(a)anthracene	10 lbs.
Chrysene	100 lbs.
Benzo(a)pyrene	1 lbs.
Acenaphthene	100 lbs.
Dibenzofuran	100 lbs.
Benzo(b)fluoranthene/benzo[e]acefenantrileno	1 lbs.
Biphenyl	100 lbs.
Dibenz(a,h)anthracene	1 lbs.
Pyrene	5000 lbs.
Acenaphthylene	5000 lbs.
Fluorene	5000 lbs.
Quinoline	5000 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Pyrene	500lbs
Coal tar pitch	10000 lbs
Calcium Carbonate (Limestone)	10000 lbs
Cellulose	10000 lbs
Creosote	10000 lbs
Phenanthrene	10000 lbs
Fluorathene	10000 lbs
Clay	10000 lbs
Naphthalene	10000 lbs
Anthracene	10000 lbs
Indeno[1,2,3-cd]pyrene	10000 lbs
Benzo(a)anthracene	10000 lbs
Chrysene	10000 lbs
Benzo(a)pyrene	10000 lbs
Acenaphthene	10000 lbs
Dibenzofuran	10000 lbs
Benzo(b)fluoranthene/benzo[e]acefenantrileno	10000 lbs
Crystalline Silica (Quartz)/ Silica Sand	10000 lbs

SARA 313 (TRI Reporting)

<u>Chemical Identity</u>
Creosote
Fluorathene
Phenanthrene
Naphthalene
Indeno[1,2,3-cd]pyrene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene/benzo[e]acefenantrileno

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65



WARNING

Cancer - www.P65Warnings.ca.gov

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Coal tar pitch
Calcium Carbonate (Limestone)
Cellulose
Creosote
Fluorathene
Phenanthrene
Naphthalene
Indeno[1,2,3-cd]pyrene
Benzo(a)anthracene
Chrysene
Benzo(a)pyrene
Benzo(b)fluoranthene/benzo[e]acefenantrileno
Crystalline Silica (Quartz)/ Silica Sand

US. Massachusetts RTK - Substance List

Chemical Identity

Coal tar pitch
Calcium Carbonate (Limestone)
Cellulose
Creosote
Fluorathene
Phenanthrene
Indeno[1,2,3-cd]pyrene
Benzo(a)anthracene
Chrysene
Benzo(a)pyrene
Benzo(b)fluoranthene/benzo[e]acefenantrileno
Crystalline Silica (Quartz)/ Silica Sand
Dibenz(a,h)anthracene
Pyrene

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Coal tar pitch
Calcium Carbonate (Limestone)
Cellulose
Creosote
Fluorathene
Phenanthrene
Indeno[1,2,3-cd]pyrene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene/benzo[e]acefenantrileno

US. Rhode Island RTK

Chemical Identity

Calcium Carbonate (Limestone)
Cellulose

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

VOC:

Regulatory VOC (less water and
exempt solvent) : 299 g/l

VOC Method 310 : 24.00 % 0.01 %

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	One or more components in this product are not listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Mexico INSQ:	One or more components in this product are not listed on or exempt from the Inventory.
Ontario Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Taiwan Chemical Substance Inventory:	One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision
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Revision Date: 07/21/2018

Version #: 1.1

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

