Date prepared: AUGUST 2017
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Section 1 – Product Identification

IDENTITY: *Product Name:* **PRO-TEKT FLEXCOAT, Component A**

AQUAFIN, INC.
505 BLUE BALL RD. #160
ELKTON, MD 21921

Emergency Phone No. **(800) 394-1410**
Information Phone No. **(410) 392-2300**
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Recommended use of the chemical and restriction on use: Refer to the product technical data sheet. For industrial and professional users.

Section 2 – Hazards Identification

GHS Classification:

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.
Acute toxicity - Category 4 - Oral
Eye irritation - Category 2A
Skin sensitization - Category 1
Carcinogenicity - Category 2
Specific target organ toxicity - repeated exposure - Category 2 - Oral

GHS Label element:

Hazard Pictograms

GHS07 GHS08

Signal Word: WARNING!

Hazard Statements:
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements:
Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P301+312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.
P308+313 IF exposed or concerned: Get medical advice/ attention.
P333+313 If skin irritation or rash occurs: Get medical advice/ attention.
P337+313 If eye irritation persists: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.

Storage:
P405 Store locked up.

Disposal:
P501: Dispose of contents/container to an approved waste disposal site.

Other hazards: No data available.

Section 3 – Composition / Information on Ingredients

This product is a mixture.

Hazardous Components	CAS No.	Weight %
2,2,4-Trimethyl-1, 3-pentanediol diisobutyrate	6846-50-0	>= 15.0 - <= 40.0 %
Diethyltoluenediamine (DETDA)	68479-98-1	>= 15.0 - <= 40.0 %
N,N'-Dialkylaminodiphenylmethane	5285-60-9	>= 10.0 - <= 30.0 %
Propylene carbonate	108-32-7	>= 7.0 - <= 13.0 %
6-Methyl-2,4-bis(methylthio)phenylene-1,3- diamine	106264-79-3	>= 7.0 - <= 13.0 %
Unknowns	Not available	>= 5.0 - <= 10.0 %
Titanium dioxide	13463-67-7	>= 3.0 - <= 7.0 %
Carbon black	1333-86-4	>= 0.5 - <= 1.5 %

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence not require reporting in this section.

Section 4 – First Aid Measures

General Advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

After Inhalation: Move person to fresh air. If effects occur, consult a physician.

After Eye Contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available. Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Suitable emergency eye wash facility should be available in work area .

After Skin Contact: Remove material from skin immediately by washing with soap and plenty of water.

	Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.
After Ingestion:	If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed
Notes to physician: No Specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media: Do not use direct water stream. May spread fire.

Special hazards arising from the substance or mixture:
Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen cyanide. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

Advice for firefighters
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots, and gloves).

Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire-fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. Keep personnel out of low areas. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
Methods and materials for containment and cleaning up: Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

Section 7 – Handling and Storage

Precautions for safe handling: Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Do not swallow. Wash thoroughly after handling. Spills of these organic materials on hot fibrous insulations may lead to lowering of the auto-ignition temperatures possibly resulting in spontaneous combustion. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Protect from atmospheric moisture. Store in a dry place. Do not store product contaminated with water to prevent potential hazardous reaction. Avoid temperatures above 50°C (122°F) See Section 10 for more specific information. Store in accordance with good manufacturing practices.

Section 8 – Exposure Controls / Personal Protection

Control parameters
Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Diethyltoluenediamine (DETDA)	Dow IHG	TWA	0.02 ppm
Titanium dioxide	Dow IHG OSHA Z-1 ACGIH	TWA TWA total dust TWA	2.4 mg/m^3 15 mg/ m^3 10 mg/ m^3, Titanium dioxide
Carbon black	ACGIH OSHA Z-1	TWA inhalable fraction TWA	3 mg/ m^3 3.5 mg/ m^3

Exposure controls:
Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures:
Eye/face protection: Use chemical goggles.
Skin protection
Hand protection: Use gloves chemically resistant to this material.
Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

Section 9 – Physical and Chemical Properties

Appearance:	
Physical State	Liquid
Color	Gray
Odor:	Sulfur-like
Odor Threshhold:	No test data available.
pH:	No data available.
Melting point/range:	No data available.
Freezing point:	No data available.
Boiling point (760 mmHg):	No data available.
Flash point:	Closed cup >=93.3°C (>=199.9°F) *Estimated.* Open cup >= 93.3°C (>=199.9°F) *Estimated.*
Evaporation Rate (Butyl Acetate =1):	Not available.
Flammability (solid, gas):	Not applicable.
Lower explosion limit:	Liquid
Upper explosion limit:	Liquid
Vapor Pressure:	No data available.
Relative Vapor Density (air = 1):	No data available.
Relative Density (water = 1):	No data available.
Water Solubility:	No data available.
Partition coefficient: n-octanol/water	This product is a mixture. See Section 12 for individual component data.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic Viscosity	No information available.
Explosive properties	No data available.
Oxidizing properties	No data available.
Molecular weight	Not reported.

NOTE: The physical data presented above are typical values and should not be construed as a specification.

Section 10 – Stability and Reactivity

Reactivity: Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

Possibility of hazardous reactions: Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Polymerization can be catalyzed by: Strong bases. Water.

Conditions to avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. Avoid moisture. Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction.

Incompatible materials: Avoid contact with: Acids. Alcohols. Amines. Water. Ammonia. Bases. Metal compounds. Moist air. Strong oxidizers. Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat. Avoid contact with metals such as: Aluminum. Zinc. Brass. Tin. Copper. Galvanized metals. Avoid contact with absorbent materials such as: Moist organic absorbents. Avoid unintended contact with polyols. The reaction of polyols and isocyanates generate heat.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition.

Section 11 – Toxicological Information

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity:
Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product: Single dose oral LD50 has not been determined.

Based on information for component(s):
LD50, Rat, 1,430 mg/kg Estimated.

Acute dermal toxicity:
Prolonged skin contact is unlikely to result in absorption of harmful amounts.
As product: The dermal LD50 has not been determined.
Based on information for component(s):
LD50, Rabbit, 3,800 mg/kg Estimated.

Acute inhalation toxicity:
At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous. Vapor from heated material or mist may cause respiratory irritation.
As product: The LC50 has not been determined.

Skin corrosion/irritation
Prolonged contact may cause slight skin irritation with local redness.

Serious eye damage/eye irritation
May cause moderate eye irritation.
May cause moderate corneal injury.

Sensitization
Based on information for component(s):
For skin sensitization:
Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Based on information for component(s):
In animals, effects have been reported on the following organs:
Kidney.
Liver.
Lung.
In rats, repeated dietary ingestion of diethyltoluenediamine (DETDA) has caused pancreatic, eye, liver and thyroid effects.
May cause methemoglobinemia, thereby impairing the blood's ability to transport oxygen.

Carcinogenicity
Diethyltoluenediamine (DETDA) has caused cancer in long-term animal studies. Increased numbers of tumors in the liver, thyroid and possibly the mammary glands were observed in rats given DETDA in their diet at exaggerated doses for 2 years. Lung fibrosis and tumors have been observed in rats exposed to titanium dioxide in two lifetime inhalation studies. Effects are believed to be due to overloading of the normal respiratory clearance mechanisms caused by the extreme study conditions. Workers exposed to titanium dioxide in the workplace have not shown an unusual incidence of chronic respiratory disease or lung cancer. Titanium dioxide was not carcinogenic in laboratory animals in lifetime feeding studies. Lung fibrosis and tumors have been observed in rats exposed to high concentrations of very fine carbon black particles for their lifetime. Effects are believed to be due to overloading of the normal respiratory clearance mechanisms caused by the extreme study conditions. Rats may be particularly susceptible to particle clearance overload, resulting in lung injury and tumors. No increases in tumors were observed in male or female mice exposed under the same conditions.

Teratogenicity
No relevant data found.

Reproductive toxicity
Based on information for component(s): In animal studies, has been shown to interfere with reproduction.

Mutagenicity
Based on information for component(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were predominantly negative.

Aspiration Hazard
Based on available information, aspiration hazard could not be determined.

COMPONENTS INFLUENCING TOXICOLOGY:

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate

Acute inhalation toxicity
No adverse effects are anticipated from inhalation.

Maximum attainable concentration. LC50, Rat, 4 Hour, dust/mist, >6.067 mg/l No deaths occurred at this concentration.

Diethyltoluenediamine (DETDA)

Acute inhalation toxicity
The LC50 value is greater than the Maximum Attainable Concentration.

N,N'-Dialkylaminodiphenylmethane

Acute inhalation toxicity

At room temperature, exposure to vapor is minimal due to low volatility; vapor from heated material may cause respiratory irritation.

The LC50 has not been determined.

Propylene carbonate

Acute inhalation toxicity

No adverse effects are anticipated from single exposure to vapor.

The LC50 has not been determined.

6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine

Acute inhalation toxicity

The LC50 has not been determined.

Unknowns

Acute inhalation toxicity

The LC50 has not been determined.

Titanium dioxide

Acute inhalation toxicity

LC50, Rat, male, 4 Hour, dust/mist, > 6.82 mg/l No deaths occurred at this concentration.

Carbon black

Acute inhalation toxicity

LC50, Rat, 1 Hour, dust/mist, 27 mg/l No deaths occurred at this concentration.

Carcinogenicity Component	List	Classification
Titanium dioxide	IARC	Group 2B: Possibly carcinogenic to humans
Carbon Black	IARC ACGIH	Group 2B: Possibly carcinogenic to humans A3: Confirmed animal carcinogen with unknown relevance to humans.

Section 12 – Ecological Information

Ecotoxicological information appears in this section when such data is available.

Toxicity

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate

Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.
Toxicity to aquatic species occurs at concentrations above material's water solubility.
NOEC, Lepomis macrochirus (Bluegill sunfish), flow-through test, 96 Hour, >= 6 mg/l, OECD Test Guideline 203

Acute toxicity to aquatic invertebrates

Toxicity to aquatic species occurs at concentrations above material's water solubility.
NOEC, Daphnia magna (Water flea), 48 Hour, >= 1.46 mg/l

Chronic toxicity to aquatic invertebrates
NOEC, Daphnia magna (Water flea), flow-through test, 21 d, 0.7 mg/l
LOEC, Daphnia magna (Water flea), flow-through test, 21 d, 1.3 mg/l

Diethyltoluenediamine (DETDA)

Acute toxicity to fish
Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).
LC50, Leuciscus idus (Golden orfe), static test, 48 Hour, 194 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), static test, 48 Hour, 0.5 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
ErC50, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate, 100 mg/l, OECD Test Guideline 201

Toxicity to bacteria
EC10, Bacteria, 16 Hour, 170 mg/l

N,N'-Dialkylaminodiphenylmethane

Acute toxicity to fish
Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

Acute toxicity to aquatic invertebrates
For similar material(s):
EC50, Daphnia magna (Water flea), 48 Hour, 0.35 mg/l, OECD Test Guideline 202

Chronic toxicity to aquatic invertebrates
For similar material(s):
NOEC, Daphnia magna (Water flea), 21 d, 0.0053 mg/l

Propylene carbonate

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Cyprinus carpio (Carp), semi-static test, 96 Hour, > 1,000 mg/l

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), 48 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
EC50, alga Scenedesmus sp., 72 Hour, Biomass, > 900 mg/l, Method Not Specified.

Toxicity to bacteria
EC50, activated sludge, 30 min, > 800 mg/l, OECD 209 Test

6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine

Acute toxicity to fish
Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).
LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, 7.3 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), 48 Hour, 0.9 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
EC50, Pseudokirchneriella subcapitata (microalgae), 72 Hour, Growth rate inhibition, 7.6 mg/l, OECD Test Guideline 201
Toxicity to bacteria
EC50, activated sludge, Respiration inhibition, 3 Hour, 1,000 mg/l, OECD 209 Test

Unknowns
Acute toxicity to fish
No relevant data found.

Titanium dioxide
Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
NOEC mortality, Leuciscus idus (Golden orfe), static test, 48 Hour, > 1,000 mg/l

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), static test, 48 Hour, > 1,000 mg/l

Carbon black
Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Leuciscus idus (Golden orfe), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), 24 Hour, > 5,600 mg/l, OECD Test Guideline 202 or Equivalent

Persistence and degradability

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate
Biodegradability: Material shows rapid biodegradation. Attains the pass level of 60% biodegradation (based on oxygen consumption or CO2 evolution) or 70% biodegradation (based on dissolved organic carbon loss) within 28 days.
10-day Window: Fail
Biodegradation: 70.73 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Theoretical Oxygen Demand: 2.40 mg/mg

Stability in Water (1/2-life)
Hydrolysis, half-life, 178 d, pH 9, Measured

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitization: OH radicals
Atmospheric half-life: 0.933 d
Method: Estimated.

Diethyltoluenediamine (DETDA)
Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.
10-day Window: Fail
Biodegradation: < 1 %

Exposure time: 28 d
Method: OECD Test Guideline 301D or Equivalent

Theoretical Oxygen Demand: 3.23 mg/mg

N,N'-Dialkylaminodiphenylmethane
Theoretical Oxygen Demand: 3.20 mg/mg

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitization: OH radicals
Atmospheric half-life: 0.070 d
Method: Estimated.

Propylene carbonate
Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).
10-day Window: Pass
Biodegradation: 94 %
Exposure time: 28 d
Method: OECD Test Guideline 301E or Equivalent
10-day Window: Not applicable

Biodegradation: > 97 %
Exposure time: 28 d
Method: OECD Test Guideline 302B or Equivalent

Theoretical Oxygen Demand: 1.25 mg/mg

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitization: OH radicals
Atmospheric half-life: 34 Hour
Method: Estimated.

6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine
Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.
10-day Window: Fail
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301D or Equivalent

Theoretical Oxygen Demand: 2.69 mg/mg

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitization: OH radicals
Atmospheric half-life: 0.053 d
Method: Estimated.

Unknowns
Biodegradability: No relevant data found.

Titanium dioxide

Biodegradability: Biodegradation is not applicable.

Carbon black

Biodegradability: Biodegradation is not applicable.

Bioaccumulative potential

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): > 4.11 at 25 °C OECD Test Guideline 107 or Equivalent
Bioconcentration factor (BCF): 5.2 - 31 Cyprinus carpio (Carp) Measured

Diethyltoluenediamine (DETDA)

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 1.17 Measured
Bioconcentration factor (BCF): 3 Estimated.

N,N'-Dialkylaminodiphenylmethane

Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).
Partition coefficient: n-octanol/water(log Pow): 6.08 Estimated.
Bioconcentration factor (BCF): 9,500 Estimated.

Propylene carbonate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Potential for mobility in soil is very high (Koc between 0 and 50). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process. Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): -0.41 Measured

6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 2.5 at 20 °C Measured
Bioconcentration factor (BCF): 9.8 - 25 Fish No information available.

Unknowns

Bioaccumulation: No relevant data found.

Titanium dioxide

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Carbon black

Bioaccumulation: No relevant data found.

Mobility in soil

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate

Potential for mobility in soil is low (Koc between 500 and 2000).
Partition coefficient (Koc): 610 Estimated.

Diethyltoluenediamine (DETDA)

Potential for mobility in soil is low (Koc between 500 and 2000).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Partition coefficient (Koc): 551.2 Estimated.

N,N'-Dialkylaminodiphenylmethane

Expected to be relatively immobile in soil (Koc > 5000).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Partition coefficient (Koc): > 5000 Estimated.

Propylene carbonate

Potential for mobility in soil is very high (Koc between 0 and 50).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Partition coefficient (Koc): 15 Estimated.

6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine

Potential for mobility in soil is low (Koc between 500 and 2000).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Partition coefficient (Koc): 1249 Estimated.

Unknowns

No relevant data found.

Titanium dioxide

No data available.

Carbon black

No relevant data found.

Section 13 – Disposal Considerations

Disposal methods: NOTICE: Research sample for use by qualified personnel only. Upon completion of tests, dispose of material and container safely and in accord with federal, state/provincial and local laws and regulations. If further information is needed on disposal or use, consult your supplier.

Section 14 – Transport Information

USDOT (Domestic Surface)	Not regulated for transport.
Classification for SEA transport (IMO-IMDG):	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Diethyltoluenediamine, N,N'-Dialkylaminodiphenylmethane)
Proper shipping name	
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Diethyltoluenediamine, N,N'-Dialkylaminodiphenylmethane
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):	Environmentally hazardous substance, liquid, n.o.s. (Diethyltoluenediamine, N,N'- Dialkylaminodiphenylmethane)
Proper shipping name	
UN number	UN 3082
Class	9
Packing group	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15 – Regulatory Information

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
Acute Health Hazard
Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313
To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania Worker and Community Right-To-Know Act:
The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components	**CASRN**
Titanium dioxide	13463-67-7
Carbon black	1333-86-4

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

Components	**CASRN**
Titanium dioxide	13463-67-7
Carbon black	1333-86-4
Propylene oxide	75-56-9

United States TSCA Inventory (TSCA)
All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Section 16 – Other Information

Other information
For research use only.
Revision
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Abbreviations and acronyms:

USDOT:	United States Department of Transportation.
ACGIH:	USA ACGIH Threshold Limit Vales (TLV)
DOW IHG:	Dow Industrial Hygiene Guideline
IMDG:	International Maritime Code for Dangerous Goods.
OSHA Z-1:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
SKIN:	Absorbed via skin
TWA:	Time weighted average
IATA:	International Air Transport Association.
CAS:	Chemical Abstracts Service (Division of the American Chemical Society).
LC50:	Lethal concentration, 50 percent.

SDS prepared by: Aquafin product safety department.

DISCLAIMER:
We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, expressed or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use. Aquafin shall not be responsible for the use of this product in a manner to infringe on any patent or any other intellectual property rights held by others. User is responsible for determining appropriate safety measures and for applying the legislation covering his own activities. We recommend that user makes tests to determine the suitability of a product for its particular purpose prior to use.

END OF SDS (February 20, 2019)