



QuakeBond™ UVC UV Resistant Coating

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Chemical Product and Company Identification

1.1. Identification

Chemical Family : Acrylic Paints
Product name : **QuakeBond™ UVC Acrylic UV Resistant Coating**

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Supplier's Name : QuakeWrap, Inc
6840 S Tucson Blvd
Tucson, Arizona 85712 - USA
T 520.791.7000 - F 520.791.0600
Office@quakewrap.com – www.quakewrap.com

1.4. Emergency telephone number

Emergency Number : Infotrac 800-535-5053

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin sensitization, Category 1 H317 May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label Elements, Including precautionary statements

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H317 - May cause an allergic skin reaction
Precautionary statements (GHS US) : P261 - Avoid breathing mist/vapors/spray.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection.
P302+P352 - If on skin: Wash with plenty of mild soap and water.
P321 - Specific treatment: See SDS Section 4.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P501 - Dispose of contents/container to special waste facility in accordance with regional/national regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition, Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product Identifier	Conc (% w/w)	GHS-US classification
Titanium dioxide	(CAS-No.) 13463-67-7	10 - 30	Not classified
Additive blend	(CAS-No.) NONE - MIX	0.1 - 1	Skin Sens. 1A, H317 Aquatic Acute 2, H401 Aquatic Chronic 2, H411



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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If symptoms occur: go into open air and ventilate suspected area.
- First-aid measures after skin contact : Wash skin with plenty of water. Dispose of contaminated leather articles. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Keep work clothing separate.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Do not induce vomiting. Give nothing or a little water to drink. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use. Delayed adverse effects possible.
- Symptoms/effects after inhalation : Not expected to present a respiratory hazard under ambient conditions of normal industrial use due to low vapor pressure. Vapors from heated material may cause mild respiratory irritation with dryness and cough.
- Symptoms/effects after skin contact : Allergic skin rash. May cause moderate irritation. Swelling.
- Symptoms/effects after eye contact : Direct contact with the eyes is likely to be irritating. Redness, pain.
- Symptoms/effects after ingestion : nausea, vomiting.
- Chronic symptoms : Symptoms of chronic overexposure may not be readily apparent.

Titanium dioxide (13463-67-7)	
Chronic symptoms	*Titanium Dioxide: The product contains Titanium Dioxide (TiO ₂ white) encapsulated in a solid matrix. No exposure to respirable titanium dioxide is anticipated during normal use of this item. In lifetime inhalation studies rats were exposed for 2 years to respectively 10, 50 and 250 mg/m ³ of respirable TiO ₂ . Slight lung fibrosis was observed at 50 and 250 mg/m ³ levels. Microscopic lung tumors were also observed in 13 percent of the rats exposed to 250 mg/m ³ , an exposure level that caused lung overloading and impairment of rat lungs' clearance mechanisms. In further studies, these tumors were found to occur only under particle overload conditions in a uniquely sensitive species, the rat, and have little or no relevance for humans. The pulmonary inflammatory response to TiO ₂ particles exposure was also found to be much more severe in rats than in other rodent species. IARC has classified Titanium dioxide as Group 2B: "possibly carcinogenic to humans", based upon "inadequate evidence in humans and sufficient evidence in experimental animals" for the carcinogenicity of titanium dioxide. However, the conclusions of several epidemiology studies on more than 20000 TiO ₂ industry workers in Europe and the USA did NOT suggest a carcinogenic effect of TiO ₂ dust on the human lung. Mortality from other chronic diseases, including other respiratory diseases, was also not associated with exposure to TiO ₂ dust. Mutagenicity : Did not cause genetic damage in animals. Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire fighting measures

5.1 Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

- Fire hazard : Irritating and/or toxic gases or fumes likely if involved in fire or exposed to extreme heat.
- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Dike water and extinguishing agents away from drains and waterways if possible.
- Protection during firefighting : Complete protective clothing. Use self-contained breathing apparatus and chemically protective clothing.



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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Boots, gloves, goggles.
- Emergency procedures : Dike and contain spill. Stop leak, if possible without risk. Soak up small spill with inert solids.

6.1.2. For emergency responders

- Protective equipment : Boots, gloves, goggles.
- Emergency procedures : Stop release. Dike and contain spill. Prevent product from entering drains. Absorb remaining liquid with sand or inert absorbent and remove to safe place.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Soak up small spill with inert solids. Contain or absorb spilled liquid with clay or other absorbent material. Dike and contain spill. Sweep or shovel spills into appropriate container for disposal.
- Methods for cleaning up : On land, sweep or shovel into suitable containers. Clean/flush spill area with mild detergent solution.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Wear personal protective equipment.
- Hygiene measures : Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a dry place.
- Storage temperature : 5 - 50 °C
- Storage area : Store away from heat.

SECTION 8: Exposure Controls, Personal Protection

8.1. Control parameters

Titanium dioxide (13463-67-7)		
ACGIH	Local name	Titanium dioxide
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ Total Dust
ACGIH	Remark (ACGIH)	LRT irr; A3
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ Total Dust
IDLH	US IDLH (mg/m³)	5000 mg/m³
NIOSH	NIOSH REL (TWA) (mg/m³)	0.3 mg/m³ Nanoparticles <100 nm, inhalable dust (proposed)

Additive blend (NONE - MIX)

Not applicable

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.



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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. In case of splash hazard: safety glasses.

Hand protection:

Protective gloves. Gloves. butyl rubber. Chloroprene rubber. Nitrile rubber

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Long sleeved protective clothing

Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: No data available
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: ≈ 0 °C water
Boiling point	: ≈ 100 °C water
Flash point	: > 150 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Moderately soluble in water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2 Other information

No additional information available

SECTION 10: Stability and Reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.



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10.2. Chemical stability

Stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Titanium dioxide (13463-67-7)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
LC50 inhalation rat (mg/l)	> 6.8 mg/l/4h

Additive blend (NONE - MIX)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Titanium dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use. Delayed adverse effects possible.

Symptoms/effects after inhalation : Not expected to present a respiratory hazard under ambient conditions of normal industrial use due to low vapor pressure. Vapors from heated material may cause mild respiratory irritation with dryness and cough.

Symptoms/effects after skin contact : Allergic skin rash. May cause moderate irritation. Swelling.

Symptoms/effects after eye contact : Direct contact with the eyes is likely to be irritating. Redness, pain.

Symptoms/effects after ingestion : nausea, vomiting.

Chronic symptoms : Symptoms of chronic overexposure may not be readily apparent. . Cross-sensitization, or allergic response away from direct contact area may occur.



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Titanium dioxide (13463-67-7)	
Chronic symptoms	*Titanium Dioxide: The product contains Titanium Dioxide (TiO ₂ white) encapsulated in a solid matrix. No exposure to respirable titanium dioxide is anticipated during normal use of this item. In lifetime inhalation studies rats were exposed for 2 years to respectively 10, 50 and 250 mg/m ³ of respirable TiO ₂ . Slight lung fibrosis was observed at 50 and 250 mg/m ³ levels. Microscopic lung tumors were also observed in 13 percent of the rats exposed to 250 mg/m ³ , an exposure level that caused lung overloading and impairment of rat lungs' clearance mechanisms. In further studies, these tumors were found to occur only under particle overload conditions in a uniquely sensitive species, the rat, and have little or no relevance for humans. The pulmonary inflammatory response to TiO ₂ particles exposure was also found to be much more severe in rats than in other rodent species. IARC has classified Titanium dioxide as Group 2B: "possibly carcinogenic to humans", based upon "inadequate evidence in humans and sufficient evidence in experimental animals" for the carcinogenicity of titanium dioxide. However, the conclusions of several epidemiology studies on more than 20000 TiO ₂ industry workers in Europe and the USA did NOT suggest a carcinogenic effect of TiO ₂ dust on the human lung. Mortality from other chronic diseases, including other respiratory diseases, was also not associated with exposure to TiO ₂ dust. Mutagenicity : Did not cause genetic damage in animals. Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Titanium dioxide (13463-67-7)	
LC50 fish 1	> 1000 mg/l Pimephales promelas (fathead minnow)
EC50 Daphnia 1	>= 1000 mg/l Daphnia magna (Water flea)
ErC50 (algae)	> 100 mg/l Pseudokirchneriella subcapitata (green algae)
Threshold limit algae 1	61 mg/l (EC50; Other; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
Additive blend (NONE - MIX)	
LC50 fish 1	2.8 mg/l
EC50 Daphnia 1	4 mg/l
ErC50 (algae)	> 100 mg/l

12.2. Persistence and degradability

Titanium dioxide (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable. Low potential for mobility in soil.
ThOD	Not applicable

12.3. Bioaccumulative potential

113-25W EFI Developmental Water Based Acrylic Coating (MIX)	
Bioaccumulative potential	Low bioaccumulation potential.
Titanium dioxide (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations : Do not discharge into drains or the environment.

Product/Packaging disposal recommendations : Dispose of contents or partial containers in accordance with local/regional regulations. Direct disposal of free liquid without treatment to landfill IS NOT recommended.

Additional information : Material in "as sold" condition is not regulated as a hazardous waste under federal RCRA regulations.



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SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal Regulations

Titanium dioxide (13463-67-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Additive blend (NONE - MIX)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

15.2. International Regulations

CANADA

No additional information available

EU-Regulations

QuakeBond UVC UV Resistant Coating	
RoHS Substance	No
SVHC	No
Titanium dioxide (13463-67-7)	
SVHC	No
RoHS Substance	No
Additive blend (NONE - MIX)	
SVHC	No
RoHS Substance	No

National regulations

Titanium dioxide (13463-67-7)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other Information

National and international Regulations

Revision date : 11/11/2019

Other information : **DISCLAIMER:** To the best of our knowledge, the information contained in this SDS is accurate or is obtained from sources believed to be accurate. However, no liability, expressed or implied, is assumed for the accuracy or completeness of the information contained herein. Buyer assumes liability in its use of the material.



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Full text of H-phrases:

H317	May cause an allergic skin reaction
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

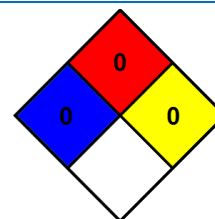
Abbreviations and acronyms:

	N.A. - Not Applicable N.E. - Not Established N.D. - Not Determined ACGIH = American Conference of Governmental Industrial Hygienists OSHA = US Occupational Health and Safety Administration TLV-TWA = Threshold Limit Value-Time Weighted Average (8 hrs) STEL = Short-Term Exposure Limit (15 min) C = Ceiling Value PEL = Permissible Exposure Limit OEL = Occupational Exposure Limit IDLH = Immediately Dangerous to Life and Health ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor PNEC = Predicted No Effect Concentration LOAEL = Lowest Observed Adverse Effect Level NOAEL = No Observed Adverse Effect Level NOAEC = No Observed Adverse Effect Concentration
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NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 0 Minimal Hazard - No significant risk to health

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : B

B - Safety glasses, Gloves

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable