



Product Identifier: Adhesion Products AP-602 Panel Bond

SDS ID: AP-602 PB

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Product identifier:

Adhesion Products AP-602 PB

Product Use

Adhesive / Sealant

Company Information

Titan
22290 Challenger Drive
Elkhart, IN 46514

EMERGENCY TELEPHONE NUMBER
1-800-255-3924

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with 29 CFR 1910.1200.

Toxic to reproduction, Category 2

Hazardous to the Aquatic Environment - Acute Hazard, Category 3

Hazardous to the Aquatic Environment - Chronic Hazard, Category 3

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

WARNING

Hazard Statement(s)

Suspected of damaging fertility or the unborn child

Harmful to aquatic life with long lasting effects



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Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection. Avoid release to the environment.

Response

IF exposed or concerned: Get medical advice/attention.

Storage

Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component	Percent
1317-65-3	Calcium Carbonate	30-55
471-34-1	Carbonic acid, calcium salt (1:1)	15-25
53306-54-0	1,2-Benzenedicarboxylic acid, bis(2-propylheptyl)ester	5-15
1760-24-3	N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine	0.5-2
13463-67-7	Titanium dioxide	0.1-1
1333-86-4	Carbon black	.01-0.09

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

Inhalation

IF INHALED: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.



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Eye Contact

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.

Ingestion

If a large amount is swallowed, get immediate medical attention.

Most Important Symptoms/Effects

Acute

Skin irritation and eye irritation.

Delayed

Reproductive effects

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Use carbon dioxide, regular dry chemical, regular foam or water.

Unsuitable Extinguishing Media

None known.

Special Hazards Arising from the Chemical

Hazardous Combustion Products

Combustion: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Special Protective Equipment and Precautions for Firefighters

May burn, but does not ignite readily.



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Fire Fighting Measures

Move material from fire area if it can be done without risk. Cool containers with water. Avoid inhalation of vapors or combustion by-products. Use extinguishing agents appropriate for surrounding fire. Dike for later disposal. Stay upwind and keep out of low areas.

Protective Equipment and Precautions for Firefighters

Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.

Section 6 - Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Keep unnecessary people away, isolate hazard area and deny entry. Only personnel trained for the hazards of this material should perform clean up and disposal.

Methods and Materials for Containment and Cleaning Up

Ventilate the area. Stop leak if possible without personal risk. Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Do not handle until all safety precautions have been read and understood. Do not breathe vapor or mist. Avoid contact with skin and eyes. Do not eat, drink, or smoke when using this product. Always wear recommended personal protective equipment. Wear personal protective clothing and equipment, see Section 8. Wash thoroughly after handling.

Conditions for Safe Storage, including any Incompatibilities

Store and handle in accordance with all current regulations and standards. Keep container tightly closed. Keep separated from incompatible substances.

Incompatibilities: strong acids, strong oxidizing materials



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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Calcium Carbonate (1317-65-3)

OSHA:	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)
NIOSH:	10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable dust)
Mexico:	10 mg/m ³ TWA LMPE-PPT 20 mg/m ³ STEL [LMPE-CT]

Carbonic acid, calcium salt (1:1) (471-34-1)

NIOSH:	10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable dust)
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Titanium dioxide (White, Gray, Beige and Neutral only) (13463-67-7)

ACGIH:	10 mg/m ³ TWA
OSHA:	15 mg/m ³ TWA (total dust)
Mexico:	10 mg/m ³ TWA LMPE-PPT (as Ti) 20 mg/m ³ STEL [LMPE-CT] (as Ti)

Dibutyl tin (818-08-6)

ACGIH:	0.1 mg/m ³ TWA (as Sn); 0.2 mg/m ³ STEL (as Sn)
NIOSH:	0.1 mg/m ³ TWA (except Cyhexatin, as Sn)

Carbon black (*used in Gray and Black ONLY) (1333-86-4)

ACGIH:	3 mg/m ³ TWA (inhalable fraction)
OSHA:	3.5 mg/m ³ TWA
NIOSH:	3.5 mg/m ³ TWA; 0.1 mg/m ³ TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)
Mexico:	3.5 mg/m ³ TWA LMPE-PPT 7 mg/m ³ STEL [LMPE-CT]

Appropriate Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eyes/Face Protection

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.



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Skin Protection

Wear appropriate chemical resistant clothing.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Protective Materials

Nitrile

Respiratory Protection

Use an approved respirator if exposure limits are exceeded or if irritation develops or persists.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Appearance:	paste
Color:	various	Physical Form:	paste
Odor:	mild	Odor Threshold:	Not available
pH:	Not available	Melting Point:	Not available
Boiling Point:	Not available	Decomposition:	Not available
Flash Point:	>200 °F	Evaporation Rate:	Not available
OSHA Flammability Class:	Not available	Vapor Pressure:	Not available
Vapor Density (air = 1):	Not available	Density:	Not available
Specific Gravity (water = 1):	1.3-1.7	Water Solubility:	Slightly soluble
Log KOW:	Not available	Coeff. Water/Oil Dist:	Not available
KOC:	Not available	Auto Ignition:	Not available
Viscosity:	Not available	VOC:	Not available
Volatility:	Not available	Molecular Formula:	Not available

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.



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Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials

Strong acids, strong oxidizing materials

Hazardous Decomposition Products

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Hazardous Decomposition

Combustion: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons

Section 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Carbonic acid, calcium salt (1:1) (471-34-1)

Oral LD50 Rat 6450 mg/kg

Titanium dioxide (White, Gray, Beige and Neutral only) (13463-67-7)

Oral LD50 Rat >10000 mg/kg

Information on Likely Routes of Exposure

Inhalation

May be harmful if inhaled.

Ingestion

May be harmful if swallowed.

Skin Contact

May cause irritation of the skin. May cause irritation, redness, itching and burning.

Eye Contact

May cause irritation of the eyes. Contact may cause tearing, redness, a stinging or burning feeling, swelling, and blurred vision.



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Immediate Effects

Skin irritation, eye irritation

Delayed Effects

No information is available.

Medical Conditions Aggravated by Exposure

Skin disorders, eye disorders

Irritation/Corrosivity Data

Causes skin, eye and respiratory irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Germ Cell Mutagenicity

No information available for the product.

Carcinogenicity

Results of a DuPont epidemiology study showed that employees who had been exposed to titanium dioxide pigments were at no greater risk of developing lung cancer than were employees who had not been exposed to titanium dioxide pigments. No pulmonary fibrosis was found in any of the employees and no associations were observed between titanium dioxide pigment exposure and chronic respiratory disease or lung abnormalities. Based on the results of this study, DuPont concluded that titanium dioxide pigment will not cause lung cancer or chronic respiratory disease in humans at concentrations experienced in the workplace.

Component Carcinogenicity

Titanium dioxide (13463-67-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 93 [2010]; Monograph 47 [1989] (Group 2B (possibly carcinogenic to humans))

DFG: Category 3A (could be carcinogenic for man, inhalable fraction with the exception of ultra small particles)

OSHA: Present

Carbon black (1333-86-4)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans



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IARC: Monograph 93 [2010]; Monograph 65 [1996] (Group 2B (possibly carcinogenic to humans))
DFG: Category 3B (could be carcinogenic for man, inhalable fraction)
OSHA: Present

Reproductive Toxicity

May damage fertility or the unborn child

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration Hazard

No information available for the product.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component Analysis - Aquatic Toxicity

Diisononyl phthalate (28553-12-0)

Fish: 96 Hr LC50 Brachydanio rerio: >100 mg/L [semi-static]; 96 Hr LC50 Lepomis macrochirus: >0.14 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: >0.17 mg/L [static]; 96 Hr LC50 Pimephales promelas: >0.19 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: >0.14 mg/L [static]

Algae 72 Hr EC50 Desmodesmus subspicatus: >500 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: >1.8 mg/L [static]

Invertebrate: 48 Hr EC50 Daphnia magna: >500 mg/L; 48 Hr EC50 Daphnia magna: >0.06 mg/L [Static]

Persistence and Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility

No information available for the product.



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Biodegradation

No information available for the product

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with all applicable federal, state/regional and local laws and regulations.

Disposal of Contaminated Packaging

Dispose of properly. Recycle if possible.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information

Not regulated as a hazardous material.

TDG Information

Not regulated as dangerous goods.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

Acute Health: No Chronic Health: Yes Fire: No Pressure: No Reactive: No



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U.S. State Regulations

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

Component	CAS	CA	MA	MN	NJ	PA
Calcium Carbonate	1317-65-3	No	Yes	Yes	Yes	Yes
Titanium dioxide	13463-67-7	No	Yes	Yes	Yes	Yes
Carbon black	1333-86-4	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Component Analysis – Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Calcium Carbonate	1317-65-3	Yes	NSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Carbonic acid, calcium salt (1:1)	471-34-1	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
1,2-Benzenedicarboxylic acid, bis(2-propylheptyl)ester	53306-54-0	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine	1760-24-3	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Titanium dioxide	13463-67-7	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Carbon black	1333-86-4	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

Summary of Changes

New SDS: 1.00

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European



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Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other Information

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations.

End of Sheet AP-602 PB