* * *Section 1 - IDENTIFICATION* * *

Product Identifier:

Manus Bond 501A

Recommended Use

adhesives / sealant Restrictions on Use None known.

Manufacturer Information

Manus Products, Inc. 866 Industrial Blvd. West Waconia, MN 55387

Phone: (952) 442-3323

Emergency # (800) 424-9300

* * *Section 2 - HAZARD(S) IDENTIFICATION* * *

Classification in accordance with 29 CFR 1910.1200.

Flammable Liquids, Category 3

GHS LABEL ELEMENTS





Signal Word WARNING

Hazard Statement(s)

Flammable liquid and vapor

Precautionary Statement(s)

Prevention

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/clothing and eye/face protection.

Response

In case of fire: Use appropriate media for extinction. IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower.

Storage

Store in a well-ventilated place. Keep cool.

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	40-45
64742-48-9	Naphtha, petroleum, hydrotreated heavy	30-40
14807-96-6	Talc	1-5

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13463-67-7	Titanium dioxide	0.1-1
1333-86-4	Carbon black	<0.1

* * *Section 4 - FIRST-AID MEASURES* * *

Description of Necessary Measures

Inhalation

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

Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated clothing before reuse.

Eye Contact

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

No information on significant adverse effects.

Delayed

No information on significant adverse 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, and mineral spirits

Special Protective Equipment and Precautions for Firefighters

Flammable liquid and vapor.

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.

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Methods and Materials for Containment and Cleaning Up

Eliminate all ignition sources if safe to do so. 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. Keep away from heat, sparks and flame. Take precautionary measures against static discharge. 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. Store in a well-ventilated area. Keep container tightly closed. Keep cool. Keep separated from incompatible substances.

Incompatibilities: strong oxidizing materials

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits

Calcium Carbonate (1317-65-3)

OSHA:	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
MICCH.	$10 m r (m 0.7) M/A (total dust), \Gamma m r (m 0.7) M/A (m o r m m b) = dust)$

- **NIOSH:** 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
- Mexico 10 mg/m3 TWA LMPE-PPT
 - 20 mg/m3 STEL [LMPE-CT]

Talc (14807-96-6)

- **ACGIH:** 2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)
- **NIOSH:** 2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)
- **Mexico** 2 mg/m3 TWA LMPE-PPT (respirable fraction)

Titanium dioxide((13463-67-7)

- ACGIH: 10 mg/m3 TWA
- OSHA: 15 mg/m3 TWA (total dust)
- Mexico 10 mg/m3 TWA LMPE-PPT (as Ti)
 - 20 mg/m3 STEL [LMPE-CT] (as Ti)

Carbon black (1333-86-4)

- **ACGIH:** 3 mg/m3 TWA (inhalable fraction)
- OSHA: 3.5 mg/m3 TWA
- **NIOSH:** 3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)
- Mexico 3.5 mg/m3 TWA LMPE-PPT
 - 7 mg/m3 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.

Skin Protection

Wear appropriate chemical resistant clothing.

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Glove Recommendations

Wear appropriate chemical resistant gloves.

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:	Not available	Physical Form:	paste
Odor:	petroleum odor	Odor Threshold:	Not available
pH:	Not available	Melting Point:	Not available
Boiling Point:	155-217 °C (Naphtha, petroleum, hydrotreated heavy)	Decomposition:	Not available
Flash Point:	40-60 °C (Naphtha, petroleum, hydrotreated heavy)	Evaporation Rate:	Not available
OSHA Flammability Class:	Not available	Vapor Pressure:	Greater than air
Vapor Density (air = 1):	Not available	Density:	1.26 (approximate)
Specific Gravity (water = 1):	Not available	Water Solubility:	Negligible
Log KOW:	Not available	Coeff. Water/Oil Dist:	Not available
KOC:	Not available	Auto Ignition:	Not available
Viscosity:	varies	VOC:	202 g/l
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.

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 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, and mineral spirits

* * *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:

Naphtha, petroleum, hydrotreated heavy (64742-48-9)

Dermal LD50 Rabbit >3160 mg/kg; Oral LD50 Rat >5000 mg/kg

Titanium dioxide((13463-67-7)

Oral LD50 Rat >10000 mg/kg

Carbon black (1333-86-4)

Oral LD50 Rat >15400 mg/kg

Information on Likely Routes of Exposure

Inhalation

May cause irritation and central nervous system effects including nausea, headache, dizziness, fatigue, drowsiness or unconsciousness.

Ingestion

Ingestion may cause irritation of the esophagus and gastrointestinal tract.

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.

Immediate Effects

Respiratory tract irritation, skin irritation, eye irritation, central nervous system effects

Delayed Effects

No information is available.

Medical Conditions Aggravated by Exposure

skin disorders,eye disorders

Irritation/Corrosivity Data

May cause respiratory tract irritation, skin irritation, and eye 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.

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Component Carcinogenicity

Talc (14807-96-6)

- **ACGIH:** A4 Not Classifiable as a Human Carcinogen (containing no asbestos fibers)
 - IARC: Monograph 93 [2010] (inhaled); Supplement 7 [1987]; Monograph 42 [1987] (Group 3 (not classifiable))
 - **DFG:** Category 3B (could be carcinogenic for man, free of asbestos fibers)

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
 - 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

No information available for the product.

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

No information available for the product.

Component Analysis - Aquatic Toxicity

Naphtha, petroleum, hydrotreated heavy (64742-48-9)

Fish: 96 Hr LC50 Pimephales promelas: 2200 mg/L

Talc (14807-96-6)

Fish: 96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static]

Persistence and Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility

No information available for the product.

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. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

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

Shipping Name: Hydrocarbons, liquid, n.o.s.

UN/NA #: UN3295 Hazard Class: 3 Packing Group: III

Required Label(s): 3

Additional Info.: Land Transportation: Combustible Liquid

For non-bulk shipments containing less than 119 gallons (450 liters) and transported by motor vehicle or rail within the United States, this product would be reclassified as non-regulated.

TDG Information

Shipping Name: Hydrocarbons, liquid, n.o.s. UN #: UN3295 Hazard Class: 3 Packing Group: III Required Label(s): 3

* * *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.

SARA 311/312 Hazardous Categories

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

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
Talc	14807-96-6	Yes	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.

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
Naphtha, petroleum, hydrotreated heavy	64742-48-9	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
Talc	14807-96-6	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

NFPA Ratings: Health: 1 Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Product Identifier: Manus Bond 501A

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 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 MAN-013