

Safety Data Sheet

Material Name: Manus Bond 50A-HV

SDS ID: MAN-014

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Manus Bond 50A-HV

Product Use

sealant

Restrictions on Use

None known

Manufacturer Information

Manus Products, Inc.

866 Industrial Blvd. West

Waconia, MN 55387

Phone: (952) 442-3323

Emergency Phone #: (800) 424-9300

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Acute Toxicity - Inhalation - Vapor - Category 4

Carcinogenicity - Category 2

Specific Target Organ Toxicity - Repeated Exposure - Category 1 (nervous system,respiratory system)

Specific Target Organ Toxicity - Repeated Exposure - Category 2 (circulatory system,liver,brain)

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Harmful if inhaled

Suspected of causing cancer

Causes damage to organs through prolonged or repeated exposure

May cause damage to organs through prolonged or repeated exposure

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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
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapours/spray
Wash thoroughly after handling
Do not eat, drink or smoke when using this product

Response

IF exposed or concerned: Get medical advice/attention
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell

Storage

Store locked up

Disposal

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

Statement of Unknown Toxicity

92.73% of the mixture consists of ingredient(s) of unknown acute toxicity.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
1317-65-3	Calcium Carbonate	45-50
13463-67-7	Titanium dioxide	0.1-1
1333-86-4	Carbon Black	<0.1
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	20-25
14807-96-6	Talc	1-5
64742-47-8	Petroleum distillates, hydrotreated light	1-4

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Section 4 - FIRST AID 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

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

Eyes

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 medical attention.

Most Important Symptoms/Effects

Acute

Harmful if inhaled.

Delayed

Cancer. nervous system damage, respiratory system damage effects on the brain. liver effects. circulatory system effects.

Note to Physicians

Treat symptomatically and supportively

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

None known.

Hazardous Combustion Products

Oxides of carbon. various organic fragments.

Advice for firefighters

Combustible Heating may cause an explosion Containers may rupture or explode

Fire Fighting Measures

Keep away from sources of ignition. - No smoking Move material from fire area if it can be done without risk Use extinguishing agents appropriate for surrounding fire Dike for later disposal Stay upwind and keep out of low areas

Special Protective Equipment and Precautions for Firefighters

Wear protective clothing and equipment suitable for the surrounding fire, including helmet, face mask, and self-contained breathing apparatus.

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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

Eliminate all ignition sources if safe to do so. Ventilate the area. Stop leak if possible without personal risk. Absorb with earth, sand or other non-combustible material and transfer to container. Dispose in accordance with all applicable regulations.

Environmental Precautions

Do not flush into sanitary sewer systems, drains or surface water 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 all ignition sources. 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. Take precautionary measures against static discharge.

Conditions for Safe Storage, Including any Incompatibilities

Store locked up

Store and handle in accordance with all current regulations and standards. Store in a cool dry place. Store in a well-ventilated area. For maximum shelf-life, store at or below 90°F. Keep container tightly closed. Empty containers may contain product residue. Keep separated from incompatible substances.

Incompatible Materials

Strong oxidizer, strong acids, caustic solutions.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Calcium Carbonate	1317-65-3
NIOSH:	10 mg/m3 TWA total dust; 5 mg/m3 TWA respirable dust
OSHA (US):	15 mg/m3 TWA total dust; 5 mg/m3 TWA respirable fraction
Mexico:	10 mg/m3 TWA LMPE-PPT
	20 mg/m3 STEL [LMPE-CT]
Titanium dioxide	13463-67-7
ACGIH:	10 mg/m3 TWA

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NIOSH:	5000 mg/m3 IDLH
OSHA (US):	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
NIOSH:	3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons) as PAH
	1750 mg/m3 IDLH
OSHA (US):	3.5 mg/m3 TWA
Mexico:	3.5 mg/m3 TWA LMPE-PPT
	7 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
	1000 mg/m3 IDLH (containing no Asbestos and <1% Quartz)
OSHA (US):	20 mppcf TWA (if 1% Quartz or more, use Quartz limit)
Mexico:	2 mg/m3 TWA LMPE-PPT respirable fraction

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear chemical safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

Glove Recommendations

Wear appropriate chemical resistant gloves

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white paste	Physical State	liquid
Odor	petroleum	Color	Not available
Odor Threshold	Not available	pH	Not available
Melting Point	>300 °F	Boiling Point	Not available
Freezing point	Not available	Evaporation Rate	Not available
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	Not available
Water Solubility	(negligible)	Partition coefficient: n-octanol/water	Not available
Viscosity	varies	Solubility (Other)	Not available
Density	1.52 - 1.58	Physical Form	paste
VOC	3.47 %		

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 oxidizer, strong acids, caustic solutions

Hazardous decomposition products

oxides of carbon. various organic fragments.

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Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause respiratory tract irritation. May cause nausea, dizziness, drowsiness, unconsciousness, and central nervous system depression.

Skin Contact

May cause skin irritation. Repeated exposure may cause skin dryness or cracking. May be absorbed through the skin.

Eye Contact

May cause irritation, redness, and stinging.

Ingestion

May cause nausea, vomiting and stomach pain.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

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

Titanium dioxide (13463-67-7)

Oral LD50 Rat >10000 mg/kg

Carbon Black (1333-86-4)

Oral LD50 Rat >15400 mg/kg

Petroleum distillates, hydrotreated light (64742-47-8)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit >2000 mg/kg

Inhalation LC50 Rat >5.2 mg/L 4 h

Immediate Effects

No information on significant adverse effects.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

No data available.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

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

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
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)
Petroleum distillates, hydrotreated light	64742-47-8
DFG:	Category 3B (could be carcinogenic for man, isomers in technical mixtures)

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

brain, circulatory system, liver, nervous system, respiratory system

Aspiration hazard

No information available for the product

Medical Conditions Aggravated by Exposure

No data available.

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Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

No information available for the product

Component Analysis - Aquatic Toxicity

Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID
Talc	14807-96-6
Fish:	LC50 96 h Brachydanio rerio >100 g/L [semi-static]
Petroleum distillates, hydrotreated light	64742-47-8
Fish:	LC50 96 h Pimephales promelas 45 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 2.2 mg/L [static]; LC50 96 h Oncorhynchus mykiss 2.4 mg/L [static]

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Bioconcentration

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.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

UN/NA #: Not regulated.

China Information:

UN#: Not regulated.

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Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

N/A

SARA 311/312 Hazardous Categories

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

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
Talc	14807-96-6	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

Titanium dioxide	13463-67-7
Carc:	carcinogen , 9/2/2011 (airborne, unbound particles of respirable size)
Carbon Black	1333-86-4
Carc:	carcinogen , 2/21/2003 (airborne, unbound particles of respirable size)

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Carbon Black	1333-86-4
	1 %

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Component Analysis - Inventory

Calcium Carbonate (1317-65-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	NSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Titanium dioxide (13463-67-7)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Carbon Black (1333-86-4)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Talc (14807-96-6)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Petroleum distillates, hydrotreated light (64742-47-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

Summary of Changes

New SDS: 1.00

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

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

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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; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; 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; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; 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; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; 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

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Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.