

Equustock, LLC
 8179 Starwood Drive Suite 1
 Loves Park, Illinois 61111
 815-885-3892
 815-885-4286 Fax
 admin@equustock.com

Material Safety Data Sheet

TRADE NAME Equustock environmental products group micro-sponge
INGREDIENTS 100% High Heat Treated Pine Fiber UHCBS³ process

NFPA HAZARD LABEL

<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>	<u>Special Notice</u>
1	1	0	None

DESCRIPTION
 Rotary or Kiln dried pine particles extruded into cylindrical pellets for use as remediation absorbent material

PHYSICAL DATA

Boiling Point.....	Not Applicable
Specific Gravity.....	1.24
Bulk Density.....	36lbs cubic foot
Vapor Density.....	Not Applicable
Percent Volatiles by Volume.....	Not Applicable
Melting Point.....	Not Applicable
Vapor Pressure.....	Not Applicable
Solubility in H ₂ O (% by weight).....	Insoluble. Water will expand and breakdown the pellets into wood particles.
Evaporation Rate (Butyl Acetate = 1).....	Not Applicable
pH.....	Not Applicable
Appearance and Odor.....	Light colored cylinders 3/16" to 3/8" in diameter. Approximately 1/4" to 1" long with some crumbled pellets. Light natural pine scent.

FIRE AND EXPLOSION DATA

Flash Point.....	Not Applicable
Auto-ignition Temperature.....	Variable (typically 400-500° F)
Explosive Limits in Air.....	40 grams/M ³ (LEL) for wood dust
Extinguishing Media.....	Water, Sand, Carbon Dioxide, Nitrogen
Special Fire Fighting Procedures.....	Use water to wet down dust to reduce likelihood of ignition or dispersion of dust into the air. Remove burned or wet dust to open area after fire is extinguished. Use inert gases to smother fire in enclosed spaces.
Unusual Fire and Explosion Hazard.....	Wood dust is a strong to severe explosion hazard if a dust "cloud" contacts an ignition source. Wood heated with limited oxygen will produce CO, CO ₂ and hydrocarbons which can explode if oxygen is introduced.

¹In AFL-CIO v. OSHA, 965 F. 2d 962 (11th Cir. 1992) the court overturned OSHA's 1989 Air Contaminants Rule, including the specific PELs for wood dust that OSHA had established at that time THE 1989 PELS WERE: TWA – 5.0 mg/m³; STEL (15 MIN.) – 10.0 mg/m³ (ALL SOFT AND HARD WOODS EXCEPT WESTERN RED CEDAR); WESTERN RED CEDAR: TWA – 2.5 mg/m³. Wood dust is now officially regulated as an organic dust under the Particulates Not Otherwise Regulated (PNOR) or Inert or Nuisance Dust categories at PELs noted under Health Effects information section of the MSDS. However, A NUMBER OF STATES HAVE INCORPORATED PROVISIONS OF THE 1989 STANDARD IN THEIR STATE PLANS. ADDITIONALLY, OSHA HAS ANNOUNCED THAT IT MAY CITE COMPANIES UNDER THE OSHA ACT GENERAL DUTY CLAUSE UNDER APPROPRIATE CIRCUMSTANCES FOR NON-COMPLIANCE WITH THE 1989 PELs.

HEALTH EFFECTS INFORMATION

Exposure Limit.....

¹See footnote below concerning
OSHA PELs for wood dust

Skin and Eye Contact.....

Ingestion.....

Skin Absorption.....

Chronic Effects.....

ACGIH TLV®: TWA-5.0 mg/m³;
STEL (15 min.) – 10 mg/m³ (softwood)
OSHA PEL: TWA – 15.0 mg/m³ (total dust);
5.0 mg/m³ (respirable fraction)

Wood dust can cause eye irritation. Various species of wood dust can elicit allergic contact dermatitis in sensitized individuals.

Do not ingest. Pellets expand in volume when wet. No known harmful effects. If there is any discomfort, consult a physician.

Not known to occur

Wood dust, depending on species, may cause dermatitis on prolonged, repetitive contact; may cause respiratory sensitization and/or irritation. IARC classifies wood dust as a carcinogen to humans (Group 1). This classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. IARC did not find sufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust.

REACTIVITY DATA

Conditions Contributing to Instability.....

Incompatibility.....

Hazardous Decomposition Products.....

Conditions Contributing to Polymerization.....

Stable under normal conditions.

Avoid contact with oxidizing agents and drying oils. Avoid open flame. Product may ignite at temperatures in excess of 400° F.

Thermal-oxidative degradation of wood produces irritating and toxic fumes and gases, including carbon monoxide, carbon dioxide, terpene and polycyclic aromatic hydrocarbons.

Not Applicable

PRECAUTIONS AND SAFE HANDLING

- Avoid Eye Contact.
- Avoid Repeated or Prolonged Contact with Skin. Careful bathing and clean clothes are indicated after exposure.
- Avoid Prolonged or Repeated Breathing of Wood Dust in Air.
- Avoid Contact with Oxidizing Agents and Drying Oils.
- Avoid Open Flame.
- Do Not Ingest.

GENERALLY APPLICABLE CONTROL MEASURES

Ventilation: Provide adequate general and local exhaust ventilation to maintain healthful working conditions.

Wear goggles or safety glasses. Other protective equipment such as gloves and approved dust respirators may be needed depending upon dust conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes	Flush with water to remove dust particles. If irritation persists, get medical attention.
Skin	If a rash or persistent irritation or dermatitis occurs, get medical advice before returning to work where wood dust is present.
Inhalation.....	Remove to fresh air. If persistent irritation, severe coughing, breathing difficulties occur, get medical advice before returning to work where wood dust is present.
Ingestion.....	Do not ingest. Wood Pellets will expand when wet. If there is any discomfort, consult a physician.

SPILL/LEAK CLEAN UP PROCEDURES

Sweep or vacuum spills for recovery or disposal; avoiding creating dust conditions. Provide good ventilation where dust conditions may occur. Place recovered wood dust in a container for disposal. Undegraded wood pellets on the floor present a slip and fall hazard.

IMPORTANT: The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Equustock, LLC makes no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein. Equustock, LLC will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading.

Equustock, LLC
 8179 Starwood Drive Suite 1
 Loves Park, Illinois 61111
 815-885-3892
 815-885-4286 Fax
 admin@equustock.com

Material Safety Data Sheet

TRADE NAME Equustock environmental products group micro-sponge
INGREDIENTS 100% High Heat Treated Pine Fiber UHCBS³ process "Fine"

NFPA HAZARD LABEL

<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>	<u>Special Notice</u>
1	1	0	None

DESCRIPTION
 Rotary or Kiln dried pine particles triple screened for dust control

PHYSICAL DATA

Boiling Point.....	Not Applicable
Specific Gravity.....	1.24
Bulk Density.....	29lbs cubic foot
Vapor Density.....	Not Applicable
Percent Volatiles by Volume.....	Not Applicable
Melting Point.....	Not Applicable
Vapor Pressure.....	Not Applicable
Solubility in H ₂ O (% by weight).....	Insoluble. Water will expand and breakdown the pellets into wood particles.
Evaporation Rate (Butyl Acetate = 1).....	Not Applicable
pH.....	Not Applicable
Appearance and Odor.....	Light colored cylinders 3/16" to 3/8" in diameter. Approximately 1/4" to 1" long with some crumbled pellets. Light natural pine scent.

FIRE AND EXPLOSION DATA

Flash Point.....	Not Applicable
Auto-ignition Temperature.....	Variable (typically 400-500° F)
Explosive Limits in Air.....	40 grams/M ³ (LEL) for wood dust
Extinguishing Media.....	Water, Sand, Carbon Dioxide, Nitrogen
Special Fire Fighting Procedures.....	Use water to wet down dust to reduce likelihood of ignition or dispersion of dust into the air. Remove burned or wet dust to open area after fire is extinguished. Use inert gases to smother fire in enclosed spaces.
Unusual Fire and Explosion Hazard.....	Wood dust is a strong to severe explosion hazard if a dust "cloud" contacts an ignition source. Wood heated with limited oxygen will produce CO, CO ₂ and hydrocarbons which can explode if oxygen is introduced.

¹In AFL-CIO v. OSHA, 965 F. 2d 962 (11th Cir. 1992) the court overturned OSHA's 1989 Air Contaminants Rule, including the specific PELs for wood dust that OSHA had established at that time THE 1989 PELS WERE: TWA – 5.0 mg/m³; STEL (15 MIN.) – 10.0 mg/m³ (ALL SOFT AND HARD WOODS EXCEPT WESTERN RED CEDAR); WESTERN RED CEDAR: TWA – 2.5 mg/m³. Wood dust is now officially regulated as an organic dust under the Particulates Not Otherwise Regulated (PNOR) or Inert or Nuisance Dust categories at PELs noted under Health Effects information section of the MSDS. However, A NUMBER OF STATES HAVE INCORPORATED PROVISIONS OF THE 1989 STANDARD IN THEIR STATE PLANS. ADDITIONALLY, OSHA HAS ANNOUNCED THAT IT MAY CITE COMPANIES UNDER THE OSHA ACT GENERAL DUTY CLAUSE UNDER APPROPRIATE CIRCUMSTANCES FOR NON-COMPLIANCE WITH THE 1989 PELs.

HEALTH EFFECTS INFORMATION

Exposure Limit.....

¹See footnote below concerning
OSHA PELs for wood dust

Skin and Eye Contact.....

Ingestion.....

Skin Absorption.....

Chronic Effects.....

ACGIH TLV®: TWA-5.0 mg/m³;
STEL (15 min.) – 10 mg/m³ (softwood)
OSHA PEL: TWA – 15.0 mg/m³ (total dust);
5.0 mg/m³ (respirable fraction)

Wood dust can cause eye irritation. Various species of wood dust can elicit allergic contact dermatitis in sensitized individuals.

Do not ingest. Pellets expand in volume when wet. No known harmful effects. If there is any discomfort, consult a physician.

Not known to occur

Wood dust, depending on species, may cause dermatitis on prolonged, repetitive contact; may cause respiratory sensitization and/or irritation. IARC classifies wood dust as a carcinogen to humans (Group 1). This classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. IARC did not find sufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust.

REACTIVITY DATA

Conditions Contributing to Instability.....

Incompatibility.....

Hazardous Decomposition Products.....

Conditions Contributing to Polymerization.....

Stable under normal conditions.

Avoid contact with oxidizing agents and drying oils. Avoid open flame. Product may ignite at temperatures in excess of 400° F.

Thermal-oxidative degradation of wood produces irritating and toxic fumes and gases, including carbon monoxide, carbon dioxide, terpene and polycyclic aromatic hydrocarbons.

Not Applicable

PRECAUTIONS AND SAFE HANDLING

- Avoid Eye Contact.
- Avoid Repeated or Prolonged Contact with Skin. Careful bathing and clean clothes are indicated after exposure.
- Avoid Prolonged or Repeated Breathing of Wood Dust in Air.
- Avoid Contact with Oxidizing Agents and Drying Oils.
- Avoid Open Flame.
- Do Not Ingest.

GENERALLY APPLICABLE CONTROL MEASURES

Ventilation: Provide adequate general and local exhaust ventilation to maintain healthful working conditions.

Wear goggles or safety glasses. Other protective equipment such as gloves and approved dust respirators may be needed depending upon dust conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes	Flush with water to remove dust particles. If irritation persists, get medical attention.
Skin	If a rash or persistent irritation or dermatitis occurs, get medical advice before returning to work where wood dust is present.
Inhalation.....	Remove to fresh air. If persistent irritation, severe coughing, breathing difficulties occur, get medical advice before returning to work where wood dust is present.
Ingestion.....	Do not ingest. Wood Pellets will expand when wet. If there is any discomfort, consult a physician.

SPILL/LEAK CLEAN UP PROCEDURES

Sweep or vacuum spills for recovery or disposal; avoiding creating dust conditions. Provide good ventilation where dust conditions may occur. Place recovered wood dust in a container for disposal. Undegraded wood pellets on the floor present a slip and fall hazard.

IMPORTANT: The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Equustock, LLC makes no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein. Equustock, LLC will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading.