MATERIAL SAFETY DATA SHEET

SECTION 1: GENERAL INFORMATION

Product Name: Pine Sawdust
Product Use: Absorbent, Fluid Loss Prevention / Diverting Agent
MSDS Prepared on Behalf of Manufacturer/Supplier: Lone Pine Supply
Address: Box 309, Linden, Alberta T0M 1J0
Description: Solid particles, dust and chips consisting primarily of kiln dried softwood

Emergency Telephone: 403-546-3766
Reception Telephone: 403-546-3766
Fax: 403-546-2483
Date: October 25, 2007

SECTION 2: COMPOSITION INFORMATION ON INGREDIENTS

Hazardous Ingredients	Percent	CAS #	EXPOSURE LIMITS (mg/m3)		
			ACGIH-TWA[1]	WCB of BC-TWA[1]	AB OHS OEL[2]
Wood Dust (Total) Softwoods and hardwoods except western red cedar	100%	N/A	1.0	2.5 (non-allergenic[3])	5.0

ACGIH - American Conference of Governmental Industrial Hygienists, 2007 Threshold Limit Values for Chemical and Physical Agents

[1] TWA - time-weighted average for a normal 8-hour workday and a 40-hour workweek

[2] OEL - Alberta Occupational Health and Safety Code 2006 – Schedule 1, Table 2 – Occupational exposure limits for chemical substances within an 8-hour workday

[3] **Pine softwoods are NOT considered allergenic as per Chan-Yeung, M, Malo, J-L, "Aetological Agents in Occupational Asthma," *European Respiratory Journal*, Volume 7, 1994 (pp. 346-371).**

SECTION 3: PHYSICAL DATA

Physical state & Appearance:	Light to dark colored granular solid, finely divided material.	**Freezing/Melting Point:**	N/AP
Evaporation Rate:	N/AV	**Density:**	N/AV
Odor:	Pine	**pH:**	N/AV
Odor Threshold:	N/AV	**Solubility:**	Insoluble in water
Boiling Point:	N/AP	**Viscosity:**	N/AV

NOTES:
N/AV = Not Available
N/AP = Not Applicable

SECTION 4: FIRE OR EXPLOSION HAZARD

Fire Hazards	Product contains wood by-products; combustible. Mixing with perchloric acid may cause product to self-ignite.
Flash Point:	N/AP
Firefighting:	Water, foam, CO_2, or dry chemical. Firefighters must wear appropriate breathing apparatus and clothing.
Hazardous Combustion Products:	Combustion or thermal decomposition may generate oxides of carbon (e.g., CO, CO_2), oxides of sulphur, and/or hydrogen chloride gas (HCl).
Upper Flammable Limit:	N/AP
Lower Flammable Limit	N/AP

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SECTION 5: REACTIVITY DATA

REACTIVITY DATA

Chemical Stability: Stable

Incompatible Substances & Conditions to Avoid: Keep away from oxidizers, drying oils and ignition sources; mixing with perchloric acid may cause product to self-ignite. A severe explosion hazard may exist if a wood dust cloud comes into contact with a source of ignition. Partially burned or scorched wood dust is especially hazardous if dispersed in air because of its explosivity.[3]

Decomposition Products: Thermal decomposition may generate oxides of carbon (e.g., CO, CO_2), oxides of sulphur, and/or hydrogen chloride gas (HCl).

Hazardous Polymerization: Will not occur.

SECTION 6: TOXICOLOGICAL PROPERTIES

ROUTES OF ENTRY:

Skin: Yes **Eye**: Yes **Inhalation**: Yes **Ingestion**: Yes

EFFECTS OF *ACUTE* EXPOSURE:

INHALATION: Airborne treated or untreated wood dust may cause nose, throat or lung irritation. Various species of untreated wood dust can elicit allergic respiratory response in sensitized persons, hypersensitivity, asthma, suberosis, granulomatous pneumonitis, or acute airway obstruction.[3]

INGESTION: Not anticipated to occur. A single ingestion of a very large dose of wood dust may require immediate medical attention.

SKIN CONTACT: Skin contact may cause erythema, blistering, erosion and secondary infections of the skin, redness, scaling, itching, and vesicular dermatitis.[3]

EYE IRRITATION: May cause redness and irritation of the eye.[3]

EFFECTS OF *CHRONIC* EXPOSURE:

Chronic exposure to wood dusts can result in dermatitis reactions, asthma, pneumonitis, and coughing, wheezing, fever and the other signs and symptoms associated with chronic bronchitis.[3]

SKIN SENSITIZER: Pinenes that contain delta-caratene are classified as sensitizers. Such substances may produce an allergic reaction after initial exposure allergic dermatitis typically results in redness, scaling, and itching, which may become vesicular dermatitis if exposures are repeated. This type of dermatitis often occurs on the hands, face, forearms, eyelids, neck, and genitals, and will sometimes not appear until several years have passed following the exposure, although frequently the signs are apparent within a few days or weeks.[4]

CARCINOGEN: The International Agency for Research on Cancer (IARC) has classified "wood dust" as Group 1, Carcinogenic to Humans. This is a generic classification for all woods, even though certain individual wood species may not be carcinogenic. IARC has also indicated that hardwoods may be more hazardous than softwoods.[5]

[1] CIS Chemical Information (ILO/CIS) - Country Exposure Limits. - American Conference of Governmental Industrial Hygienists. Retrieved from WORLD WIDE WEB on October 9, 2003: http://www.inchem.org/documents/ilodb/explimit/acgih.htm

[2] Chemical and Biological Substances - ITEM: R5.48-, Exposure Limits and Designations, Appendix D. The Workers' Compensation Board of British Columbia Resolution of the Board of Directors. Retrieved from the WORLD WIDE WEB on October 9, 2003: http://www.worksafebc.com/law_and_policy/policy_decision/board_decisions/2003/july/assets/pdf/oel/resolution_2003-07-15-01.pdf

[3] Occupational Safety and Health Guideline for Wood Dust, All Soft and Hardwoods, Except Western Red Cedar. Occupational Safety and Health Administration, U.S. Department of Labor. Retrieved from the WORLD WIDE WEB on October 9, 2003: http://www.osha.gov/SLTC/healthguidelines/wooddustallsoftandhardwoodsexceptwesternredcedar/recognition.html

[4] Hathaway GJ, Proctor NH, Hughes JP, and Fischman ML [1991]. Proctor and Hughes' chemical hazards of the workplace. 3rd ed. New York, NY: Van Nostrand Reinhold.

[5] IARC. International Agency for Research on Cancer. Wood Dust. IARC Monographs on the Evaluation of Carcinogenic Risk of Chemicals to Humans. Vol. 62. Lyon, France: IARC, 1995, pp. 35-215.

SECTION 7: PREVENTIVE MEASURES

Engineering Controls:
- N/AP

Respirator:
- Use a NIOSH-approved respirator when Occupational Exposure Limits are exceeded and engineering controls are not practicable.

Eyewear:
- Safety goggles are recommended.

Clothing:
- Wear long sleeves and gloves to avoid skin contact.

Other Handling Precautions:
- Minimize stirring/turbulence of dust.
- Wash thoroughly after handling.
- Do not smoke when handling this product.
- Keep away from open flames, sparks, pilot lights, perchloric acid and other sources of ignition.

Storage Requirements:
- Store in a cool, dry place.
- Keep away from open flames, sparks, pilot lights, and other sources of ignition.
- Segregate from incompatible materials (see Section 5).

SECTION 8: FIRST AID MEASURES

Eye Contact: In case of eye contact, flush with water for at least 15 minutes. Get medical attention if required.

Skin Contact: Wash thoroughly with soap and water. Get medical attention if required.

Inhalation: Remove the person from the area. Keep at rest. Call for medical attention if required.

Ingestion: Seek medical attention if required.

SECTION 9: PREPARATION INFORMATION

MSDS Prepared By:
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