Material Safety Data Sheet

PolyBak

1. Product Information

Product	PolyBak
Manufacturer	Richwood Industries, Inc., Grand Rapids, MI
Emergency	(616) 243-2700
Additional Information	(616) 243-2700
Product name:	PolyBak
Synonyms:	Polymer Cellulose
Date prepared:	9/6/96
Date revised:	
Prepared by:	Lewis Environmental Health
MSDS Number:	PCL001

2. Hazardous Ingredients / Identity Information

Chemical or Common Name	Percent	CAS#	Exposure Limits
Cellulose	70 - 90%	9004-36-6	OSHA PEL-TWA 15 mg/m3 (Total dust) OSHA PEL-TWA 5mg/m3 (Respirable dust) ACGIH TL V-TWA 10 mg/m3 (Total dust)
Polyurea	* 10 - 30%	None	OSHA PEL-TWA None ACGIH TL V-TWA None

*Note: Percentages indicate dry weight.

Appearance and odor:
A matrix of dark brown polymer material.

3. Physical / Chemical Characteristics

Boiling point (F or C):	NAP
Vapor pressure (mm Hg):	NAP
Vapor density (air = 1):	NAP
Specific gravity (H2O=1):	1.04 – 1.16
Malting point (F or C):	NAP
Evaporation rate (butyl acetate = 1):	NAP
Solubility in water:	<0.1%
% Volatile by volume @ 70^{o}F:	NAP

4. Fire and Explosion Hazard Data

Flashpoint (method used):	NAP
Flammable limits:	
LEL:	See below under 'Unusual Fire and Explosion Hazards'
UEL:	NAP
Extinguishing media:	Water, carbon dioxide, sand
Auto ignition temperature (F or C):	400-500^{o}F
Special fire fighting procedures:	None

Unusual fire and explosion hazards:
Depending on moisture content, particle diameter, and rate of heating, cellulose dust may explode in the presence of an ignition source. An airborne concentration of 30,000 mg/m3 is often used as the LEL for cellulose pulp.

5. Reactivity Data

Stability:
( ) Unstable (x) Stable
Conditions To Avoid: NAP

Incompatibility (materials to avoid):
Avoid contact with oxidizing agents.
Avoid open flame. Product may ignite at temperature in excess of 400^{o}F.

Hazardous decomposition or byproducts:
Combustion products include carbon monoxide and carbon dioxide.

Hazardous polymerization:
( ) May Occur (x) Will Not Occur

Conditions To Avoid: NAP

6. Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled:
Not applicable for product in purchased form. Cellulosic dust may be swept or vacuumed for recovery or disposal. Avoid dusty conditions and provide adequate ventilation. Use NIOSH/MSHA approved respirator and goggles where ventilation is not possible.

Waste disposal method:
If disposed of or discarded in its purchased form, incineration is preferable Dry land disposal is acceptable in most states. It is, however, the user's responsibility to determine at the time of disposal whether your product meets RCRA criteria for hazardous waste. Follow applicable federal, state, or local regulations.

Precautions to be taken in handling and storage:
No special handling precautions are required. Keep in cool, dry place away from open flame.

Other precautions:
A NIOSH/MSHA-approved respirator and goggles should be worn when the allowable exposure limits may be exceeded.

7. Health Hazard / First Aid Data

Primary route(s) of exposure:
( ) Ingestion
(x) Skin
(x) Inhalation Dust

ACUTE HEALTH HAZARDS:
Signs and symptoms of exposure/emergency and first aid procedures:

Ingestion:
Not applicable under normal use.

Eye Contact:
Dust may mechanically irritate the eyes, resulting in redness or watering. Treat dust in eye as foreign object. Flush with water to remove dust particle. Get medical help if irritation persists.

Skin Contact:
Not applicable for product in purchased form. Get medical help if rash, irritation, or dermatitis persists.

Skin Absorption:
Not known to occur under normal use.

Inhalation:
Excessive dust concentrations may cause unpleasant deposit/obstruction in the nasal passages, resulting in dryness of nose, dry cough and headaches. Remove to fresh air. Get medical help if persistent irritation, severe coughing, or breathing difficulty occurs.

Medical condition generally aggravated by exposure:
Cellulosic dust may aggravate pre-existing respiratory conditions or allergies.

Chronic health hazards:
Cellulosic dust is a biologically inert dust, which has little or no effect on the lungs and does not produce significant organic disease or toxic effect when allowable exposure limits are met.

Carcinogenic listing:
( ) NTP: Not listed
( ) IARC Monographs: Not listed
( ) OSHA Regulated: Not listed

8. Control Measures

PERSONAL PROTECTIVE EQUIPMENT
Respiratory Protection:
Not applicable for product in purchased form. A NIOSH/MSHA approved respirator is recommended when the allowable exposure limits may be exceeded.

Protective Gloves:
Not required. However, cloth, canvas or leather gloves are recommended to minimize potential mechanical irritation from handling products.

Eye Protection:
Not applicable for product in purchased form. Safety glasses are recommended when shredding this product.

8. Control Measures (continued)

Other Protective clothing or Equipment
Not applicable for product in purchased form. Outer garments may be desirable in extremely dusty areas.

Work/Hygienic Practices
Follow good hygienic and housekeeping practices. Cleanup areas where dust settles to avoid excessive accumulation of this combustible material. Minimize blowdown or other practices, which generate high airborne-dust concentration.

VENTILATION:

Local Exhaust:
Provide local exhaust as needed so that exposure limits are met.

Mechanical (general):
Provide general ventilation in processing and storage areas as needed so that exposure limits are met.

Special:
Self-contained breathing apparatus (SCBA) recommended when fighting fire.

Other:
NAP

9. User's Responsibility

The information contained in this Material Safety Data Sheet is based on the experience of occupational health and safety professionals and comes from sources believed to be accurate or otherwise technically correct. It is the users' responsibility to determine if this information is suitable for their applications and to follow safety precautions as may be necessary. The user has the responsibility to make sure that this sheet is the most up-to-date issue.

10. Additional Information

Definition of Common Terms:

ACGIH	= American Conference of Governmental industrial Hygienists
C	= Ceiling Limit
CAS#	= Chemical Abstracts System Number
IARC	= International Agency for Research on Cancer
MSHA	= Mining Safety and Health Administration
NAP	= Not Applicable
NAV	= Not Available
NIOSH	= National Institute for Occupational Safety and Health
NTP	= national Toxicology Program
OSHA	= Occupational Safety and Health Administration
PEL	= Permissible Exposure Limit
STEL	= Short Term Exposure Limit (15 minutes)
TLV	= Threshold Limit Value
TWA	= Time-Weighted Average (B hours)
WISHA	= Washington Industrial Safety and Health Administration