

SAFETY DATA SHEET

BENTONITE HPM 20

1. PRODUCT INFORMATION AND COMPANY IDENTIFICATION

Product Name: Bentonite
INCI Name: Bentonite
CAS Number: 1302-78-9

Company: YellowBee Packaging and Supplies Inc.
#106, 2880 107 Ave SE
Calgary AB T2Z3R7 Canada

Emergency Contact: 587-352-3929

2. HAZARD IDENTIFICATION

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

OSHA defined hazards Not Classified

Label Elements

Hazard Symbol None

Signal Word None

Hazard Statement The substance does not meet the criteria for classification.

Precautionary Statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC)

None Known

3. COMPOSITION/INFORMATION ON INGREDIENTS

INCI NAME	CAS NO.	CONCENTRATION (%)
Bentonite	1302-78-9	100

**Composition
Comments**

Occupational Exposure Limits for constituents are listed in Section 8. Bentonite contains naturally occurring crystalline silica (not listed in Annex I of Directive 67/548/EEC) in quantities less than 10%.

4. FIRST AID MEASURES**Inhalation**

Move to fresh air. If symptoms are experienced, remove source of contamination or move victim to fresh air. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.

Skin Contact

Get medical attention if irritation develops and persists. No specific first aid measures noted.

Eye Contact

Do not rub eyes. Flush eyes immediately with large amounts of water. Get medical attention if irritation develops and persists.

Ingestion

No special measures required

Most important symptoms acute and delayed

Dust in the eyes will cause irritation. Dusts may irritate the respiratory tract, skin and eyes.

Indication of immediate medical attention and special treatment

Provide general supportive measures and treat symptomatically.

General Information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES**Suitable
Extinguishing Media**

Dry chemical, CO₂, water spray or regular foam. Use any media suitable for the surrounding fires.

**Unsuitable
Extinguishing Media**

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Material can be slippery when wet.

Firefighting equipment/instructions Use water spray to cool unopened containers.

Specific Methods Use standard firefighting procedures and consider the hazards of other involved materials.

General Fire Hazards No unusual fire or explosion hazards noted.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Keep unnecessary personnel away. Material can be slippery when wet. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Methods for clean-up and containment This product is miscible in water. Stop the flow of material, if this is without risk. Collect dust using a vacuum cleaner equipped with HEPA filter.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. None necessary. Reduce airborne dust and prevent scattering by moistening with water.

Environmental Precautions Avoid discharge into drains, water courses or onto the ground. No special environmental precautions required.

7. HANDLING AND STORAGE

Safe Handling Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment. Practice good housekeeping.

Safe Storage No special restrictions on storage with other products. Store in original tightly closed container. Store in a well-ventilated place. Guard against dust accumulation of this material. No special storage conditions required. Keep out of the reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. OSHA Table Z-3 (29 CFR 1910.1000)			
Constituents	Type	Value	Form
Inert or Nuisance Dusts	TWA	5 mg/m ³	Respirable fraction
		15 mg/m ³	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure Guidelines Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Appropriate Engineering Controls

If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

Individual protection

Eye/face protection Wear dust goggles

Skin/hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Respiratory protection Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Eye wash fountain is recommended. Use good industrial hygiene practices in handling this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Form	Powder/Granular
Color	Various
Odor	None
Odor threshold	Not available
Vapor pressure	0.000004 kPa at 25°C

Relative density	Not available
Melting / freezing point	Not available
Boiling point/range	Not available
Flash point	Non-flammable
Evaporation rate	Not available
Flammability Upper/lower (%)	Non-explosive
Explosive limit Upper/lower (%)	Not available
Vapor density	Not available
pH	9 in presence of water, forms translucent suspension with pH approx. 9.0
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Other information	MUL = 200mg/L
Explosive properties	Not explosive
Molecular formula	Unknown
Oxidizing properties	Not oxidizing
VOC	CARB

10. STABILITY AND REACTIVITY

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport
Chemical Stability	Stable at normal conditions
Possibility of hazardous reactions	Will not occur
Conditions to avoid	Contact with incompatible materials
Incompatible materials	None known
Hazardous decomposition product	None known

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Dust may irritate respiratory system
Skin Contact	Dust or powder may irritate the skin
Eye Contact	Dust may irritate the eyes
Ingestion	Expected to be a low ingestion hazard

Symptoms related to the physical, chemical, & toxicological characteristics

Dusts may irritate the respiratory tract, skin and eyes.

Information on toxicological effects

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage	Mild irritant to eyes (according to the modified Kay & Calandra criteria)
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	According to the classification criteria of the European Union, the product is not considered as being a skin irritant.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not listed

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects

Specific target organ toxicity - single exposure

Not classified

Specific target organ toxicity - repeated exposure

Not classified

Aspiration hazard Not an aspiration hazard.

Chronic effects In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

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12. ECOLOGICAL INFORMATION
Ecotoxicity This material is not expected to be harmful to aquatic life.

Bentonite	CAS No.: 1302-78-9	
Aquatic	Species	Test Results
Fish (LC50)	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	19000 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Store containers and offer for recycling of material when in accordance with the local regulations.

14. TRANSPORT INFORMATION

DOT Not regulated as dangerous goods.

IATA Not regulated as dangerous goods.

IMDG Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

15. REGULATORY INFORMATION

US federal regulations

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed

SARA 304 Emergency release notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance

Not listed

SARA 311/312 Hazardous Chemical

No (Exempt)

SARA 313 (TRI reporting)

Not regulated

Other Federal Regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Food and Drug

Total food additive

Administration (FDA)

Direct food additive

GRAS food additive

US state regulations
California Proposition 65


WARNING: This product contains a chemical known to the State of California to cause cancer.

International Inventories

Country(s) or Region	Inventory name	On Inventory
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical	Yes

