

Date: May 23, 2008

Notice to the Canadian Honey Industry

Honey Industry Bulk Container Standard

Purpose

This notice is to advise the Canadian Honey Industry that a Honey Industry Bulk Container Standard has been developed to assist the honey industry to comply with the Canadian regulatory requirements.

Full implementation of this bulk container standard is to be implemented for the 2009 season.

Interim recommendations for the 2008 season have been communicated earlier through the Canadian Honey Council and provincial associations.

Interim Recommendations

- All bulk containers used to store honey should be coated with a food grade coating on the interior and an approved coating on the exterior. If unsure about interior/exterior coatings a food grade liner must be used.
- If producers choose to use used juice drums, it is required that food grade plastic liners be used.
- If producers have an inventory of full drums of honey, it is recommended that they:
 - Inspect the drums and remove any flakes of paint.
 - Use a sheet of food grade plastic between the drum and lid, to act as a physical barrier to any potential paint flakes.
 - Remove or cover with approved material, all old labels.

The Honey Industry Bulk Container Standard has been developed in cooperation with the Canadian Honey Council and the Canadian Food Inspection Agency.

For more information visit www.honeycouncil.ca or
Contact Canadian Honey Council
Suite 236, 234-5149 Country Hills Blvd NW
Calgary AB T3A 5K8

Disclaimer: This notice is intended to inform the honey industry of potential concerns with drums (bulk containers) that do not meet Canadian regulatory requirements. It is the responsibility of each operator to ensure drums used to package honey meet Canadian and the importing country's requirements.

**Canadian Honey Council
Barrel Drum Standards Committee Recommendations**

Honey Industry Bulk Container Standard

1.0 PURPOSE

- to present a standard that will maintain the quality and safety of honey packed in metal or plastic containers/drums
- all containers must comply with the prescribed standards

2.0 BULK CONTAINER DESCRIPTION

Bulk containers include containers which have a weight capacity of more than 5 kgs, for example metal and plastic drums/totes.

Currently, there are a number of different types of bulk containers used by the honey industry to package honey. The following are some examples; however there may be others which are not listed here.

1. New open top metal drums manufactured in North America.
2. Reconditioned open top metal drums reconditioned in North America.
3. Used open top metal juice drums originating in North America or offshore.
4. New closed top metal drums manufactured in North America.
5. Used closed top metal drums, previously used for foods like (e.g. honey, molasses or liquid sucrose), originating both from North America and offshore.
6. New plastic open top drums manufactured in North America.
7. New plastic totes manufactured in North America.
8. Used plastic totes originating from North America or offshore.

3.0 HAZARDS

There is a potential for chemical, physical and biological contamination from bulk containers. For example, drums with non food grade coatings/plastic liners or storage of compounds other than food could be a source of chemical/physical contamination.

Containers used to package honey must not be a source of contamination to the honey.

Examples of contamination sources:

Chemical

- containers without traceability or known history
- containers having been used for products other than food

Physical

- unwashed containers
- flaking paint
- dirt

Biological (e.g. bacteria, yeast and mould)

- unwashed containers
- improper storage of filled containers

4.0 REGULATORY REQUIREMENTS

Bulk containers/drums must comply with:

Food and Drugs Act - Sections 4 and 7

Food and Drug Regulations - Division 23

Honey Regulations - Sections 4.1, 16, 25, 32

It is the producers/operator's responsibility to determine that bulk containers are suitable for packaging honey and do not pose any potential hazards to the honey.

5.0 PROCEDURE

5.1 Construction

Metal Drums

All metal drums, including new, reused and reconditioned drums, must be coated or lined with a food grade coating. If not, then a food grade liner must be used. The coating must:

- provide a continuous barrier between the metal surface of the drum and honey;
- be inert;
- not impart any flavor to honey;
- be suitable for acidic foods such as honey; and
- be resistant to flaking or peeling.

Note: Some open-top drums although they are used to hold food, are designed only to be used with bags/liners. Therefore, the lining of the drum and gasket of the lids may not be suitable for contact with honey.

Plastic Drums/Containers

Plastic drums/totes must be food grade and need to comply with the above requirements. It is important to remember that used plastic drums/totes may impart an odor, flavor or contamination to honey. Tote cages and pallets can be reused as long as they are aluminum/plastic; however, if the previous use of the bladder is unknown or used for a product other than honey, it must not be reused. Only new bladders or bladders that have traceability and have only been used for honey can be used.

5.2 Good Production Practice

It is recommended that producers not use drums from China, India or Ecuador, as they have been found to contain lead based exterior paint.

Some manufacturers of **new** or **reconditioned drums** produce the drums in a hazard free environment and seal them immediately. This allows the drums to be used without washing before filling with honey. However, in order to assure this, the drums need to be accompanied with a letter of compliance.

Reminder: It is still the responsibility of the beekeeper, as the last control point before filling, to inspect and verify that the drums can be filled without washing.

Drums must be checked for damage, deterioration and contamination prior to use and cleaned, as required.

All **used** drums must be washed before filling as well as having a food grade liner when filled.

Letter of compliance from suppliers are necessary for plastics. Producers must use food grade plastic drum liners for all used drums that do not have traceability. Recommendation is to use minimum 4 mil liners, 38x62" in size.

Non food grade plastic can contain lead (extrusion die lubricant) or toxic plasticizers which can contaminate honey.

The plastic of the liner must be food grade. The liner must remain chemically inert when subjected to the time/temperature for melting the honey where the temperature could be as high as 180°F (82°C) for as long as 8 hours.

5.2.1 Visual inspection

Before filling, all bulk containers (e.g. metal and plastic) and their lids must be inspected to ensure they are:

- clean and dry
- free of dents that break the inner paint liner
- without signs of internal rust
- free of old labels

While tight lids may be a sufficient seal, each producer will need to assess their own handling and storage methods; and if a hazard risk exists, food grade gaskets or plastic seals must be used.

Only new gaskets are to be used, used gaskets can be a potential source of hazards.

Potable water must be used for washing of drums.

5.2.2 Cleaning Requirements

Outside

- remove or cover over all old labels (**Note:** if labels are covered over, an approved coating must be used, e.g. blank vinyl label, approved paint)
- wash under the top chime on the outside of the drum to remove any material that may be lodged there
- sides and bottom of the drum must be fully washed, and
- the lid and ring are fully washed

Inside

- all inside surfaces must be fully washed
- inside bottom chime is washed, to remove any material that may be lodged
- inspect drums after washing to ensure there has been no inside paint removal, and stored in a location before filling that does not pose a risk for contamination

When filled, the barrel must have a label with all the identifying information that allows for traceability of the honey; e.g. producer's name, date, drum number, production lot number and CFIA registration number, if applicable.

5.3 STORAGE

Empty drums are stored in a manner that minimizes water and dirt exposure.

Washed or ready to use empty drums must be stored in a clean dry area, without exposure to any hazards.

5.4 DISPOSAL

Metal drums that do not meet standards may be refurbished through a plant with approved food grade products.

Drums that do not meet standard and are not suitable for reconditioning may be disposed of at a scrap yard.

5.5 RECORDS

The following records need to be available:

- if the drums are new or reconditioned, a letter of compliance is available
- identification of where the bulk containers have been sourced and type of containers
- empty container evaluation so that requirements are met and containers are free from defects
- distribution records, if bulk containers have been distributed, indicating: date shipped, description of the barrel(s), quantity, client name and contact information
- identified deficiencies and corrective actions taken to bring bulk containers into compliance

5.8 REFERENCES

[Canada Agricultural Products Act](#)

Honey Regulations

[Canadian Food Inspection Agency - Food of Animal Origin - Honey - Main Page](#)

Honey Facility Inspection Manual

<http://www.inspection.gc.ca/english/fssa/honmiel/estman/ch4e.shtml>

<http://www.inspection.gc.ca/english/fssa/honmiel/estman/ch5e.shtml>

Food and Drugs Act and Regulations
<http://laws.justice.gc.ca/en/F-27/index.html>

New Zealand Food Safety Authority Code of Practice: Processing of Bee Products
<http://www.nzfsa.govt.nz/animalproducts/publications/code-of-practice/bee/part-2/page-07.htm>

Appendix I - Glossary

Approved food grade coating: A material approved by or evaluated by the CFIA, Health Canada for use to coat the interior and exterior of drums to be used to hold food.

Bottom Chime: The bottom portion of the drum where the bottom head and wall of the drum are curled into a seam.

Bulk container: A container that has a weight capacity of more than 5 kg; can be either metal or plastic.

Coating: Material to coat the interior and exterior of drums.

Contamination: The presence of a chemical, drug, food additive, heavy metal, industrial pollutant, ingredient, medicine, microbe, pesticide, poison, toxin or any other substance not permitted by, or in excess of the limits prescribed under the Canadian Environmental Protection Act, the Food and Drugs Act and the Pest Control Product Act.

Foreign Material: presence of material such as wood chips, paint chips, excessive bee parts which would affect the eating quality, appearance or shipping quality of honey.

Hazard: A condition or circumstance having the potential to cause harm. Hazards can be biological, chemical or physical.

1. **Biological Hazard:** the presence of harmful bacteria, yeast or mould.
2. **Chemical Hazard:** chemical, drug, food additive, heavy metal, industrial pollutant, ingredient, medicine, pesticide, poison, toxin or any other substance not permitted by, or in excess of the limits prescribed under the Canadian Environmental Protection Act, the Food and Drugs Act and the Pest Control Product Act.
3. **Physical Hazard:** injurious foreign material 2mm or larger in size in any one dimension.

Letter of Compliance: A document provided by the supplier, and approved/evaluated by CFIA, Health Canada stating that the product is acceptable for the application intended.

Plastic Liner: Polyethylene bag, or liners which is suitable for direct food contact and able to withstand temperatures of 180°F (82°C) for period of 8 hours.

Plastic seal: Polyethylene sheet which is suitable for incidental food contact. As it is removed before melting the honey.

Reconditioned Drum: food grade drums

A drum which meets the following criteria:

- had its paint removed to bare metal;
- bottom chime recrimped and put back to round;
- coated with approved coating; and
- baked

Reconditioned Drum: Non-Food grade drums

Must undergo thermal reconditioning, e.g. blast firing to remove all non-food residues before approved coatings are applied.

- had its paint removed to bare metal;
- bottom chime recrimped and put back to round;
- coated with approved coating; and
- baked

Top Chime: The top portion of the wall of the drum that is curled to nest the lid on.

Tote: A bulk container having a capacity between 125-250gallons/470-950 liters approx. consisting of an aluminum or plastic pallet, an aluminum cage, and a plastic bladder.

Thermal reconditioning; The application of flame and high heat to the inside of the drum, to remove any previous residues. Example; blast furnace, 1800°F/ 982°C.

