



UL 2805

Standard for Sustainability for Compostable Paper Bags

Standard for Sustainability for Compostable Paper Bags, UL 2805

First Edition, Dated July 24, 2015

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INTRODUCTION

1 General

1.1 This Standard is a republication of Ecologo Certification Criteria Document (CCD) 087, Compostable Paper Bags. The criteria have been reformatted for consistency with the Style Manual for UL Standards.

2 Scope

2.1 This Standard includes compostable paper bags.

3 Units of Measurement

3.1 For the purposes of these requirements, values shall be reported in accordance with the requirements of the specific criteria and shall be in metric units. If a manufacturer's choice of units deviates, that change shall be documented and justified as to the reason and relevance for that change.

4 Undated References

4.1 Any undated reference to a code or standard appearing in the criteria of these requirements shall be interpreted as referring to the latest edition of that code or standard. The exception shall be in the case where the criterion explicitly states a certain version or date to be used.

5 Glossary

5.1 For the purpose of these requirements, the following definitions apply.

5.2 ACUTELY LETHAL – The effluent at 100% concentration kills more than 50% of the rainbow trout subjected to it when tested in accordance with section 5 or 6 of the Biological Test Method: Reference Method for Determining Acute Lethality of Effluent to Rainbow Trout, EPS1/RM/13, July 1990.

5.3 BIODEGRADABLE – The plastic product extruded from the resin degrades as per the prescribed ratios by the end of a standard test period when tested in accordance with ISO/FDIS 14855, Determination of the ultimate aerobic biodegradability and disintegration of plastic materials under controlled composting conditions - Method by analysis of evolved carbon dioxide.

5.4 CHEMICAL OXYGEN DEMAND (COD) – The mass concentration of oxygen equivalent to the amount of dichromate consumed by dissolved and suspended matter when a water sample is treated with that oxidant in accordance with test method ISO 6060, Water quality - Determination of chemical oxygen demand or test method 5220 C or D in Standard Methods for the Examination of Water and Wastewater.

5.5 CHLORINE BLEACHING PLANT – A plant in a mill where pulp is bleached by chlorine or chlorine dioxide.

5.6 COMPONENT PULP – A pulp which is used in the manufacture of a paper product and that is produced at an off-site facility.

5.7 CONSUMER – A household, commercial establishment or institutional facility.

5.8 CONTROLLED COMPOSTING – Composting in accordance with ISO/FDIS 14855, Determination of the ultimate aerobic biodegradability and disintegration of plastic materials under controlled composting conditions - Method by analysis of evolved carbon dioxide.

5.9 EFFLUENT – Waste water from a mill, including process water, gas scrubbing water, boiler blow-down water, washdown water, cooling water and leachate from any site at the mill where solid residues generated by any mill are treated or disposed of or where wood chips or hogfuel is stored.

5.10 MEASURABLE CONCENTRATION OF 2,3,7,8-TCDD – A concentration of 2,3,7,8-TCDD that is greater than the level of quantification as defined in Environment Canada's Report EPS 1/RM/19, 1991, Reference Method for Determination of Polychlorinated Dibenzoparadioxins and Polychlorinated Dibenzofurans in Pulp and Paper Mill Effluents.

5.11 MEASURABLE CONCENTRATION OF 2,3,7,8-TCDF – A concentration of 2,3,7,8-TCDF that is greater than the level of quantification as defined in Environment Canada's Report EPS 1/RM/19, 1991, Reference Method for Determination of Polychlorinated Dibenzoparadioxins and Polychlorinated Dibenzofurans in Pulp and Paper Mill Effluents, and that, when multiplied by 0.1, exceeds 5 ppq.

5.12 NO-OBSERVED-EFFECT-CONCENTRATION (NOEC) – The highest concentration of a test material to which organisms are exposed, in which the response is found, by some statistical test, not to be different from the control response.

5.13 NON-TOXIC – The quality of compost derived from controlled composting of the resin used in the manufacture of composting bags exhibits equivalent terrestrial toxicity levels when compared to a reference compost derived from the composting of cellulose, in addition to the compost (inoculum) control, under the same controlled composting conditions.

5.14 POST-CONSUMER MATERIAL – A product which has served its end-use at the consumer level, has been discarded by the consumer, and unless diverted, would enter waste stream.

5.15 PRE-CONSUMER MATERIAL – Materials generated by an industrial process that would, unless diverted, enter the waste stream. This includes, but is not limited to, damaged or defective materials, overstock or obsolete inventories from manufacturers, distributors, wholesalers and trimmings from converting processes. It does not include wet or dry broke.

5.16 PRIMARY WOOD FIBER – Fiber from wood which has not previously been pulped.

5.17 PRINTED RECOVERED MATERIAL – Material which has been printed and/or coated and would, unless diverted, enter the waste stream.

5.18 RECYCLED MATERIAL – Post-consumer material and pre-consumer material. It does not include by-products of an industrial process that can be, and regularly are, used in either the same process, or in a different process, except that proportion which originated as post-consumer material and pre-consumer material. It may include sawdust or planer shavings from sawmill operations.

5.19 TEF_{sub} – Sublethal toxicity emission factor. It is calculated as $(100/NOEC) \times \text{waste water flow in m}^3/\text{ton of product}$. NOEC is determined for larval growth for effluents discharged:

- a) To freshwater in accordance with Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows, Environment Canada, Report EPS 1/RM/22, 1992; and
- b) To marine or estuarine waters by testing sheepshead minnow or inland silverside in accordance with Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, USEPA Report EPA/600/4-91/003.

5.20 TERRESTRIAL TOXICITY – Toxicity levels determined by testing in accordance with OECD 208, Terrestrial Plant Growth Test: Seeding Emergence and Seeding Growth Test.

COMPLIANCE EVALUATION

6 Product Specific Requirements

6.1 The compostable paper bag shall be biodegradable.

6.2 The compostable paper bag shall be manufactured so that:

a) The total of load points assessed for COD, TEF_{sub} , and Net solid waste, as determined in Table A1.1 does not exceed 6; and

b) The effluent from the paper mill or any mill which produces a market pulp does not contain either of the following:

1) A measurable concentration of 2,3,7,8-TCDD; and

2) A measurable concentration of 2,3,7,8-TCDF.

6.3 The compostable paper bag shall be accompanied by a list of all fiber sources including market pulp (for each grade of compostable paper bag).