

**Environmental Specifications for IV Bags and Tubing**

*Comments Due by October 31, 2012*

*We are seeking comments on a draft environmental specification for IV bags, tubes and IV administration sets from members and partners of Practice Greenhealth. This specification is designed to provide a valuable supply chain tool for purchasers in health care who are not familiar with the environmental attributes associated with various products used in health care. This is one specification of many we are preparing for 2012.*

*Please submit comments by email to* [*gsc@practicegreenhealth.org*](mailto:gsc@practicegreenhealth.org) *using track changes. Please include names of individuals, credentials and their affiliations who participated in this review for recognizition as technical reviewers.*

*We have not assessed whether or not products exist on the market meeting this specification and invite responses that may provide insight into available products.*

*The key environmental attributes outlined in the* [*Healthier Hospitals Initiative’s Safer Chemicals Challenge*](http://healthierhospitals.org/hhi-challenges/safer-chemicals) *have been incorporated into this specification.*

*We also welcome suggestions on areas that would be important to address that are not included. If you have any questions, please send them to the email above. Confirmation responses will be sent when comments have been submitted.*

**Environmental Specifications for:**

* **Plastic IV Bags**
* **Plastic IV Tubes**
* **IV Administration Sets**

1. **Scope**

Infusion intravenous (IV) bags are either glass bottles or thick plastic bags that hang on a stand mounted next to a patient’s bed.[[1]](#footnote-1) The solutions contained in IV bags are considered a “drip” therapy of pharmaceuticals and/or nutritional liquids. Approximately 95% of IV solutions are packaged in medical grade plastic bags from 100ml to 1,000ml in volume. [[2]](#footnote-2)

This Environmental Specification will cover plastic IV bags and tubes, not catheters, glass containers or liquids. This specification excludes bags and tubes for blood products as blood is not an infusion fluid.

1. **Definitions**

**IV Bags:** are medical grade plastic bags from 100ml to 1,000ml in volume, most often made from polyvinyl chloride (PVC).

**IV Tubing:** is produced in many lengths and diameters, they link the IV bag to the patient. Made from PVC, polyethylene, or polypropylene plastic; PVC tubing is softened with plasticizers to make it flexible.

**Nordic Swan Ecolabel**: The official sustainability ecolabel for the Nordic countries, introduced by the Nordic Council of Ministers, it is a voluntary license system where the applicant agrees to follow a certain criteria set which include environmental, quality and health arguments. The criteria levels promote products and services belonging to the most environmentally sound and take into account factors such as free trade and proportionality (cost vs. benefits). Products must verify compliance using methods such as samples from independent laboratories, certificates and control visits.[[3]](#footnote-3)

**Phthalates**, or **phthalate esters**, are esters of phthalic acid from a family of industrial chemicals used to soften polyvinyl plastic (PVC) plastics and as solvents in cosmetics and other consumer products

**Plasticizers** are additives used to give hard plastics like PVC flexibility and durability to soften PVC plastic.

1. **Product-Specific Environmental Considerations**

**Required Criteria**

* 1. **Polyvinyl Chloride (PVC):** Infusion bags and tubes used in IV administration shall not contain polyvinyl chloride (PVC).

This product does not contain polyvinyl chloride (PVC).

This product contains polyvinyl chloride (PVC).

***Required Documentation:***

*Manufacturer shall provide a product declaration. The declaration must be written, signed, and dated on letterhead by the manufacturer.*

* 1. **Phthalates:** The product shall be free of intentionally added phthalates, specifically DEHP, BBP, DBP, DnHP, and DIDP.

This product is free of intentionally added phthalates: DEHP, BBP, DBP, DnHP, and/or DIDP.

This product contains one or more phthalates: DEHP, DBP, DnHP, BBP, and/or DIDP

***Required Documentation:***

*Manufacturer shall provide results from Test Method CPSC-CH\_C1001-09.1: Standard Operating Procedure for Determination of Phthalates to determine the concentration of the six regulated phthalates in the product.*

* 1. **Plasticizers or Other Additives added to plastic**: No plasticizers or other additives that are intentionally added to the plastic may have one or more of the following attributes:
     + PBT (persistent, bio-accumulative and toxic) or
     + VPVB (very persistent and very bio-accumulative),
     + known or likely to be carcinogenic, mutagenic or reproductive or developmental toxicant, or endocrine disrupting as listed on the Red List of Chemicals created by Clean Production Action , <http://www.bisngo.org/resources.php> or the State of Washington’s PBT list, <http://www.ecy.wa.gov/programs/swfa/pbt/list.html>

This product is free of intentionally added plasticizers or additives that are either PBTs, VPVBs, or known or likely to be carcinogenic, mutagenic, or reproductive or development toxicants, or endocrine disrupting based on the Red List of Chemicals.

This product contains added plasticizers or additives that are either PBTs, VPVBs, or known or likely to be carcinogenic, mutagenic, or reproductive or development toxicants, or endocrine disrupting based on the Red List of Chemicals.

***Required Documentation:***

*Manufacturer shall provide a product declaration. The declaration must be written, signed, and dated on letterhead by the manufacturer.*

**Preferred Criteria**

* 1. **Third Party Certified:** Preference will be for IV bags and tubes that are certified to meet the environmental criteria in Nordic Swan’s Ecolabel or can demonstrate through an accredited third party lab the product meets or exceeds the Ecolabel criteria.

This product is certified to meet Nordic Swan Ecolabel; OR

This product can demonstrate it meets the Nordic Swan Ecolabel criteria.

This product does not meet the Nordic Swan Ecolabel criteria or it is unknown if this product qualifies.

***Required Documentation:***

*Supplier shall provide proof of certification to the Nordic Swan Ecolabel or results from an accredited testing laboratory.*

* 1. **Recyclability:** Preference will be for IV bags and tubes that are able to be collected and recycled in markets throughout the U.S.

Supplier offers collection and recycling for the IV bags

Supplier offers collection and recycling for the IV tubes

Supplier is not able to collect IV bags for recycling

Supplier is not able to collect the IV tubes for recycling

***Required Documentation:***

*Manufacturer provides declaration on an available collection and recycling program. The declaration must be written, signed, and dated on letterhead by the manufacturer.*

1. **Packaging Requirements**

**Required Criteria**

* 1. Manufacturer shall provide primary or secondary packaging that has one or more of the following measurable attributes:
     + Reduced packaging (based on previous product) by 25% percent or more of weight
     + Percentage of postconsumer recycled materials
     + Recyclable packaging (meaning it can be collected, separated or otherwise recovered from the solid waste stream for reuse, or in the manufacture or assembly of another package or product, through an established recycling program).
  2. Product shall not be packaged with polystyrene (Styrofoam™) or polyvinyl chloride (PVC) materials in the primary or secondary packaging materials.

This product’s PRIMARY packaging is:

reduced weight by 25% or more from previous version

recyclable (as defined by FTC)

contains percentage of postconsumer recycled content

free of polystyrene and PVC

None of the above

This product’s SECONDARY packaging is

reduced weight (percentage of weight reduction from previous version)

recyclable (as defined by FTC)

contains postconsumer recycled content

free of polystyrene and PVC

None of the above

***Required Documentation****:*

*Manufacturer shall provide a signed declaration on the environmental attributes of the primary and secondary packaging materials. The declaration must be written, signed, and dated on letterhead by the manufacturer.*

1. **Corporate Environmental Responsibility**

**Preferred Criteria**

* 1. Preference will be for suppliers of bags and tubes who have an environmental or sustainability statement or policy that guides programs and addresses overall corporate environmental stewardship.

Supplier has an environmental or sustainability policy or statement

Supplier does not have an environmental or sustainability policy or statement

***Required Documentation:***

*Bidder must provide a copy of the statement or policy or the URL where the statement or policy can be found*.

***Reviewers of IV Bags Specification:***

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1. Edgren, Altha R. “*Nutrition Through An Intravenous Line*.” The Gale Group. Posted by Healthline. <http://www.healthline.com/galecontent/nutrition-through-an-intravenous-line>. Viewed April 2010. [↑](#footnote-ref-1)
2. East West Medical Agency. Technology web page. <http://east-westmedical.net/technology.html>. Viewed April 2010. [↑](#footnote-ref-2)
3. [Nordic Ecolabel Product Group Criteria](http://www.nordic-ecolabel.org/criteria/product-groups/) [↑](#footnote-ref-3)