The purpose of our being here today is to represent The Craft Yarn Council Association and The National Needlearts Association (TNNA), who are manufacturers and distributors of consumer craft products such as handknitting yarns, crochet yarns, threads, zippers, needles, and accessories.

# Handknitting Yarns

- These are predominantly yarns made of:
  - Natural fibres such as Wool or Cotton
  - Synthetic Fibres such as Acrylic, Nylon, or Polyester
- The overwhelming majority of handknitting yarns sold in the US are made from 100% Acrylic.
- None of the above fibres contain Lead or Phthalates. Subsequent processing of these fibres, into yarn or fabrics, does not introduce Lead or Phthalates except in trace amounts.
- Most of the synthetic fibre manufacturers, but not all, are Oko-Tex certified, which means their products have been independently tested to conform to Oko-Tex 100 standards. Oko-Tex requirements include recertification annually to ensure compliance to standards.

### **Oko-Tex Standards**

- Lead
  - -0.2ppm Baby
  - 1.0ppm Contact with Skin

- Phthalates
  - 1000ppm total

## **Production of Yarns**

- Yarn produced 2 ways
  - Pre-dyed
    - Pre-dyed fibres are imported in the raw material state and transformed into yarn with no dyes or other chemicals added to the production process
    - In the production process, yarns are subjected to a steaming process, with no other chemicals added and then wound into finished packages as seen at retail.
    - It is estimated that 70-75% of all handknitting yarns sold in the US market are produced from Pre-dyed fibre.
  - Un-dyed
    - Un-dyed fibres are processed into yarn form with no chemicals added to this point, but are later dyed into desired shades.

### **Test Results**

- STR Laboratories conducted wet chemistry analysis on a number of handknitting yarns have indicated no Lead or Phthalates detected in any product. (Ref pp STR 1-STR 4)
- Additional test were conducted in conjunction Innov-X systems using a handheld XRF analyzer which also gave indications that no Lead was present in the same products which had been previously tested by STR Laboratories (ref pp 6)

### STR/XRF Lead Analysis

Sample	STR Results
Blue Sky (Baby Clouds) E710	Not Detected < 8 ppm
Clouds (Baby Clouds) E710	Not Detected < 8 ppm
Seaspray (Baby Clouds) E710	Not Detected < 8 ppm
Clear Blue (TLC Baby) E511	Not Detected < 8 ppm
Lime (TLC Baby) E511	Not Detected < 8 ppm
Powder Green (TLC Baby) E511	Not Detected < 8 ppm
Powder Pink (TLC Baby) E511	Not Detected < 8 ppm
White (TLC Baby) E511	Not Detected < 8 ppm

Sample	XRF Results
Blue Sky (Baby Clouds)	6ppm( < LOD)
Clouds (Baby Clouds)	6ppm( < LOD)
Seaspray (Baby Clouds)	6ppm( < LOD)
Clear Blue (TLC Baby)	6ppm( < LOD)
Lime (TLC Baby)	5ppm( < LOD)
Powder Green (TLC Baby)	5ppm( < LOD)
Powder Pink (TLC Baby)	5ppm( < LOD)
White (TLC Baby)	4ppm( < LOD)

 Handknit products manufactured from Undyed fibre are dyed with dyestuffs and other chemicals which contain either no lead or in some cases only trace amounts of lead.

### Coats & Clark Dye Formula

- Formula: E300.0950
- Color: Mexicana 6 Shades Variegated
- Made from Yarn Code: GYS-E300
- Procedure 810
  - Pre-Treat and Pre-wet procedure

•	0.5 lbs	Domowet ESW	0.11%
•	3.0 lbs	Acetic Acid 56%	0.67%
•	7.1 lbs	Pomosoft CC 30	1.56%

- All dyeings below contain the following at each Shade
  - 25.0 lbs Sodium Sulfate 5.56%
  - 0.5 lbs Sodium Thiosulfate 0.10%
- Rinse, Drain, Re-Fill, Dye 1<sup>st</sup> Shade
  - <u>Yellow Shade</u>
    3.2 lbs Acetic Acid 56%
    1.19 lbs Basic Yellow 51
    0.26% Pb = 3.94ppm
    - 1.2 lbs Acetic Acid 56% (dissolve dye) 0.27%

Wgt: 450 lbs Water: 951 gal

### Coats & Clark Dye Formula

- Rinse, Dye 2<sup>nd</sup> Shade
  - Orange Shade
  - 4.0 lbs Acetic Acid 56% 0.89%
  - 1.18 lbs Basic Orange G 0.26% Pb = 31.38ppm
  - 0.7 lbs Acetic Acid 56% (dissolve dye) 0.16%

#### - All other dyeings below contain the following at each Shade

- 0.20 lbs Pomosoft CC 30
   0.04%
- Rinse, Drain, Re-Fill, Dye 3<sup>rd</sup> Shade
  - <u>Red Shade</u>

•	3.0 lbs Acetic Acid 56%	0.67%	
•	0.16 lbs Astrazon Golden Yellow GL	0.04%	Pb < 1ppm
•	1.45 lbs Doracryl Red XGRLS	0.32%	Pb < 1ppm
•	0.006 lbs Basic Blue RLS	0.001%	Pb < 1ppm
•	1.5 lbs Acetic Acid 56% (dissolve dye)	0.33%	

#### – Rinse, Drain, Re-Fill, Dye 4<sup>th</sup> Shade

•	Violet Shade		
•	4.0 lbs Formic Acid 90%	0.89%	
•	1.56 lbs Astrazon Red Violet 3RN	0.35%	Pb < 1ppm
•	0.94 lbs Basic Blue RLS	0.21%	Pb < 1ppm

### Coats & Clark Dye Formula

0.33%

– Rinse, Drain, Re-Fill, Dye 5<sup>th</sup> Shade

Blue Shade		
3.2 lbs Acetic Acid 56%	0.71%	
<ul> <li>2.0 lbs Pomoco B-60 (Leveler)</li> </ul>	0.45%	
<ul> <li>0.73 lbs Basic Blue RLS</li> </ul>	0.16%	Pb < 1ppm
<ul> <li>0.30 lbs Basic Blue Green X5G</li> </ul>	0.07%	Pb < 1.82ppm
<ul> <li>0.30 lbs Acetic Acid 56% (dissolve dye)</li> </ul>	0.07%	
Rinse, Drain, Re-Fill, Dye 6 <sup>th</sup> Shade		
<u>Green Shade</u>		
<ul> <li>1.9 lbs Acetic Acid 56%</li> </ul>	0.42%	
<ul> <li>1.11 lbs Basic Yellow 51</li> </ul>	0.25%	Pb = 3.94
<ul> <li>0.3 lbs Basic Blue Green X5G</li> </ul>	0.07%	Pb < 1.82ppm

- 1.5 lbs Acetic Acid 56% (dissolve dye)
  Rinse, Drain, Re-Fill, Rinse, Drain
- Unload
- Total Dye Consumption
  - 8.93 lbs All dyes COMBINED 1.98%
- XRF analysis conducted 1/13/09, yielded lead levels of < 6ppm

## Summary

- In conclusion, all the test data gathered to date on products made from pre-dyed or un-dyed fibre, have shown that consumer craft products sold and distributed in the US are essentially lead and phthalate free. While materials and test data presented today has focused on the manufacturing of handknit products, all other products made from natural or synthetic fibres would yield very similar results.
- We believe that consumer craft products manufactured and distributed in the US markets today are significantly below the minimum lead and phthalates content levels established by the CPSIA 2008, and all consumer craft products should be exempt from testing requirements.