



GUIDE TO HEAVY METAL LIMITS

This edition of the Society of Glass & Ceramic Decorators' Guide to Heavy Metal Limits updates and replaces a paper originally published in TechNotes™ in May 1993 and included in SGCD's updated TechNoteBook™, Volume III, at page L-2-1.

For more detailed information on standards described here, please refer to the 2004 edition of SGCD's "White Paper" entitled "Lead and Other Heavy Metals: Where Does the Decorating Industry Stand?" found in SGCD's TechNoteBook™, Volume III, page L-1-1. Or request the latest version from SGCD Public Affairs Office (Phone: 703/838-2810; Fax: 703/684-6048; E-mail: andyb@sgcd.org).

HEAVY METAL FEDERAL LEGAL LIMITS FOR GLASS AND CERAMIC DECORATORS November 1, 2004 (replaces earlier version)

FEDERAL STANDARDS	FLATWARE	SMALL HOLLOW	LARGE HOLLOW	CUP MUGS TUMBLERS	PITCHERS	FOOD CONTAINER	RESTRICTIONS
FDA CERAMIC LIMITS LEAD CADMIUM	3.0 ppm 0.5 ppm	2.0 ppm 0.5 ppm	1.0 ppm 0.25 ppm	0.5 ppm -----	0.5 ppm -----	----- -----	Food contact areas only, as tested using ASTM C-738-94 (reapproved 1994). Levels apply to each of six units tested. Except flatware which is the average of six tested.
FDA LIP/RIM LIMITS LEAD CADMIUM	----- -----	----- -----	----- -----	4.0 ppm 0.4 ppm	----- -----	----- -----	New limits adopted by SGCD are effective for ware decorated after April 1, 1999. Ware decorated before that day must comply with 25 ppm limit for lead and 1.75 ppm limit for cadmium that was adopted by SGCD in 1996. Applies to area covering the top 20 mm of tumblers, cups, mugs, as tested using ASTM C-927-80 (reapproved 1993) for each of 6 units tested.
FDA PURELY DECORATIVE WARE							The following is mandatory: Either 1) A hole must be bored through the food contact surface to render the item unsuitable for food use. -OR- 2) The ware must be labeled with one of the following messages: a. "Not for food use. May poison food" b. "Not for food use. Glaze contains lead. Food use may result in food poisoning." c. "Not for food use. Food consumed from this vessel may be harmful."

HEAVY METAL STATE LEGAL LIMITS FOR GLASS AND CERAMIC DECORATORS
November 1, 2004 (replaces earlier version)

STATE STANDARDS	FLATWARE	SMALL HOLLOW	LARGE HOLLOW	CUPS MUGS	PITCHERS	FOOD CONTAINER	RESTRICTIONS
STATE TOXICS IN PACKAGING LEGISLATION						Glass Ceramic Packaging	Bans the intentional addition of: Lead, Cadmium, Mercury, and Hexavalent Chromium. States affected: CA, CT, FL, GA, IA, IL, ME, MD, MO, MN, NH, NJ, NY, PA, RI, VA, VT, WA, WI. Legislation varies by state. Please consult with SGCD for specific restrictions. Model bill, IL and MO have permanent exemption for glass/ceramic packaging that passes TCLP test for Pb, Cd and Hexavalent Cr. NH exemption valid through 1/1/05. CA exemption valid through 1/1/10.
CALIFORNIA TABLEWARE STATUE	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic		FDA Lead Cadmium limits <u>do not</u> apply to glass but <u>do</u> apply to ceramic ware and others. Requires items to be labeled with a fired mark with manufacturer or importer's name responsible for the sale in California. Registration of manufacturers and importers with CDHS required.
CALIFORNIA PROPOSITION 65 CERAMICWARE LEAD CADMIUM	0.226 ppm 3.164 ppm	0.100 ppm 0.322 ppm	0.100 ppm 0.084 ppm	0.100ppm	0.100 ppm	0.100 ppm	Warnings must be posted for any products, which might cause reproductive harm. Articles permanently marked "Not for food use - Articles may poison food - For decorative purposes only" are exempt. Applies to food contact area on any foodware surface including glass and ceramic. As tested using AOAC method, 15th edition (1990), section 973.32 for lead. This method utilizes ASTM C-738 for obtaining leachates. Significant manufacturing changes require retesting of articles to certify compliance to statute. See SGCD White Paper for details. Law applies to cadmium as of May 1, 1998. Cadmium limits are "advisory" only.
CALIFORNIA PROPOSITION 65 CRYSTALWARE							Similar to ceramicware with prescribed consumer warnings.
MINNESOTA PIGMENT STATUTE							After July 1, 1998, no deliberate introduction of lead, cadmium, mercury or hexavalent chromium into any ink, dye, pigment, paint or fungicide for use or sale in Minnesota. Special language exempts products used to decorate glass and ceramicware until January 1, 2005. Please consult with SGCD for specifics.
MASSACHUSETTS REGULATIONS LEAD	2.0 ppm	2.0 ppm	2.0 ppm	2.0 ppm	2.0 ppm		Applies to glass, ceramic, porcelain or porcelain-coated cooking or drinking vessels. Uses a modified ASTM C738 Test. Refer to SGCD TechNoteBook™ or contact SGCD for more information.

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After October 15, 2005, contact SGCD Public Affairs Office for most current version of this document.

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