

Oak Ridge National Laboratory (ORNL)
Transportation and Packaging Management (TPM)
Container Preparation and Filling Instructions/Checklist

UN 1 Gallon Tight Head (TH) Steel Drum

ORNL-CHK-33, Rev. 1

Issued: 5/15/1997

Revised: 11/15/2001

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INSTRUCTIONS: Complete the activities below following the instructions in Section A. Activities should be checked off as performed. The completed checklist should then be signed by the Operating Personnel completing the checklist and submitted to the Operations Supervisor for approval for shipment.

NOTE 1: The 1 gallon tight head steel drum is UN marked for filling with liquid hazardous materials.

NOTE 2: The maximum allowable density is embossed (bottom) and marked (side) on each drum [ex., 1.5]. Allowable density applies to Packaging Groups I, II, or III liquid materials.

NOTE 3: The maximum allowable vapor pressure is embossed (bottom) and marked (side) on the drum in kilopascals [ex., 250 kPa (36 psig)]. Allowable vapor pressure applies to Packaging Groups I, II, or III liquids.

NOTE 4: Drums must be closed in accordance with the specific instructions furnished, and tested, by the manufacturer for each specific type/size drum, in order to be in compliance with **DOT HAZMAT** regulations. [49 CFR, &178.2(c)(1)]

A. UN 1A1/X 1 Gallon Carbon Steel TH Drum
Stores Catalog No. 02-112-6110

Note: Items marked (#) are solely generator's/filler's responsibility.

**Operating
Personnel**

- _____ 1. (#) Inspect the drum to be filled to ensure that it is in good physical condition and that no critical dents/damages, severe corrosion, etc. exist that could cause or develop into a leak during normal storage or in transportation.
- _____ 2. (#) Ensure that the material being filled into the drum is compatible with (will not react, soften, or attack) the drum's internal surface.
- _____ 3. Fill the drum with liquid hazardous materials/waste according to the requirements/limitations specified in [NOTE 2](#) and [NOTE 3](#) above.

NOTE: For liquid hazardous materials/wastes, sufficient void *MUST BE* left in the drum such that the drum will not completely fill if the contents were to reach a temperature of 55°C (131°F) in storage or transit.
- _____ 4. The drum contains the Rieke plastic "flex-spout" bung already crimped into the drum head. The plastic cap of the flex-spout must be screwed tightly closed, and the flex-spout pushed down inside the drum, below the drum head. A tab-seal should be crimped in-place over the flex-spout bung. [Central/Freud – M4071]*

*These "Closing Instructions" are specifically for this 1 gallon steel drums manufactured by Central Can Co. with identification marking code on drum side M4071. [see [NOTE 4](#) above]

FOR INTERNAL USE ONLY

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**A. UN 1A1/X 1 Gallon Carbon Steel TH Drum (cont'd)
Stores Catalog No. 02-112-6110**

**Operating
Personnel**

- _____ 5. Label and mark the drum in accordance with the current ORNL/Department of Transportation (DOT) requirements. For off-site shipments, contact the ORNL Transportation and Packaging Management organization for appropriate DOT marking and labeling.
- _____ 6. Sign and date the checklist in the appropriate signature block verifying that the activities have been performed and the checklist completed.
- _____ 7. Submit this completed checklist to the Operations Supervisor for approval for shipment.

**Operations
Supervisor**

- _____ 8. Verify that all defined activities have been successfully completed.
- _____ 9. Sign and date the checklist in the appropriate signature block, approving the container for shipment.

APPROVED FOR SHIPMENT:

Operating Personnel:	Date:
Operations Supervisor:	Date:

Prepared by: ORNL TPM Organization

Approved by: Jeff Shelton November 15, 2001

Jeff Shelton, Manager (576-6401)
ORNL TPM - Packaging Operations