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| TML\MSH Microbiology Department Policy & Procedure Manual | Policy # MI\LS\15\02 | Page 1 of 4 |
| Section: Laboratory Safety Manual | Subject Title: Bulk Dispensing of Flammable Liquids - 20 L Drum | |
| Issued by: LABORATORY MANAGER | Original Date: April 20, 2001 | |
| Approved by: Laboratory Director | Revision Date: October 22, 2003 | |

Policy:

No person shall dispense, collect or dispose of flammable liquids into or from drums unless they have received specific training on the handling of flammable and combustible liquids and WHMIS. Training shall be conducted annually. All employees required to handle, dispense or dispose of flammable solvents in bulk shall attend training sessions annually and be required to demonstrate their knowledge.

Access to The Hospital's flammable storage room shall be restricted to workers who have received specific training related to the bulk dispensing and disposal of flammable liquids and where such duties are defined within their current job description.

Purpose:

This policy ensures safe handling and dispensing of flammable and combustible liquids.

Responsibility:

Management and employee

Key Elements:

- Definitions
- Preliminary Dispensing Procedures
- Drum Handling
- Drum Dispensing

Related Documents:

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| GENERAL CHEMICAL SAFETY | MI\LS\11\v01 |
| HANDLING CHEMICALS | MI\LS\12\v01 |
| | |

Procedure:

DEFINITIONS

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| Bonding | Provision of metal to metal contact - usually by wire - between two containers to prevent generation of static electrical sparks. |
| Spill Tray | A wide mouthed receptacle equipped with a perforated metal flame arrester across the opening to catch drips or spills from faucets or valves on flammable drums. |

DEFINITIONS CONTINUED:

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| Grounding | Provision of metal to “ground” contact - usually by wire - between two containers to prevent generation of static electrical sparks. |
| Non-Sparking Tools | Tools made from beryllium-copper or aluminum-bronze greatly reduce the possibility of igniting dusts, gases, or flammable vapors. Although these tools may emit some sparks when striking metal, the sparks have a low heat content and are not likely to ignite most flammable liquids. |
| Pail Rack | Device used to hold and dispense 20 - 25 L cans of flammable liquids. |
| PPE | Personal Protective Equipment |
| Safety Can | Portable device for transferring or storing up to 5 gallons of a flammable liquid. A safety can must: <ul style="list-style-type: none"> • Be leak tight; • Automatically vent vapor at approximately 5 psig internal pressure to prevent rupture; • Prevent flame from reaching the flammable liquid contents through the spout; • Automatically close after filling or pouring. |

1. Inspect room. Check for:
 - Unauthorized access
 - Noticeable odors
 - Proper illumination
 - Evidence of spills
 - Physical damage to facility
 - Tripping hazards
 - Floor drain area is clear of obstructions
2. Inspect all required personal protective equipment:
 - Eye goggles (splash type) and/or Face shield
 - Nitrile gloves
 - Apron
 - Foot protection (if moving drums)
3. Organize work
 - Ensure all safety cans are labeled with the name of the product to be dispensed.
 - Where possible, use only metal safety cans
 - Ensure spill tray is present
 - Know the location of absorbent spill materials
 - Ensure a clear route of escape is maintained at all times

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| TML\MSH Microbiology Department Policy & Procedure Manual | Policy # MI\LS\15\v02 | Page 3 of 4 |
| Laboratory Safety Manual | | |

20 L Drum Handling

1. Static Discharge Prevention

- Ensure cans are properly grounded (see Fig. 1). Grounding wire must be securely attached to 20 L can one end and the other attached to the wall mounted metal bus strip. Verify screw clamps are tight before proceeding.
- Attach bonding wire from 20 L can to safety can. (see Fig. 1)

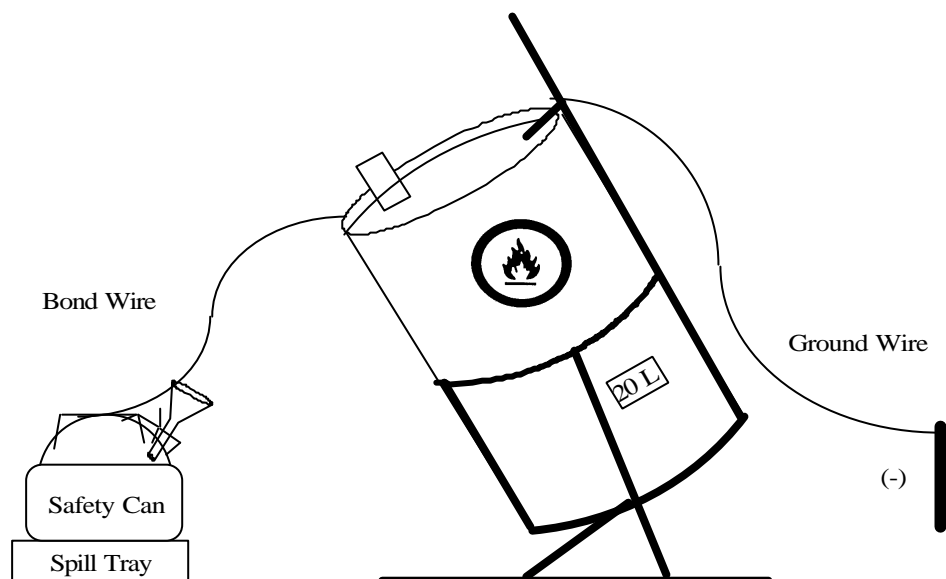


Figure 1

2. Dispensing

WARNING!

Before removing screw cap from 20 L can, ensure safety can is in correct position. Tip can into pouring position to locate correct placement of safety can.

- Ensure spill tray is under safety can. Elevate spill tray and safety can if necessary.
- Insert funnel into throat of safety can.
- Remove screw lid from 20 L can.
- Using arm of pail rack, slowly rotate can down to pouring position. (see Fig. 2).
- Fill safety can up to fill level mark or up to the seam that joins the top of the can to the body of the can.
- Replace 20 L can into upright position and replace screw cap.
- Remove bonding wire from safety can and place can on appropriate transportation device.

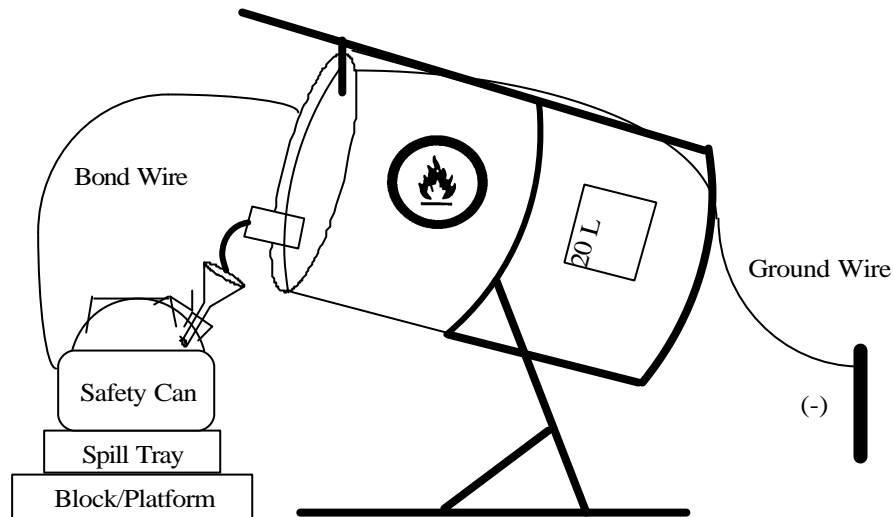


Figure 2

3. Recording

Fill out dispensing log out sheet with the following information:

- your name
- name of your department or department for which dispensed material will be used
- time and date of dispensing
- amount dispensed in liters.

4. Equipment list

- Pail Rack: Available from Lab Safety Supply, 9C-10347
- Safety Cans: Available from Lab Safety Supply, 1 gal. To 5 gal. Sizes
- Spill Tray: Available from Lab Safety Supply, 9C-7606
- Bonding and Grounding wires: Available from Lab Safety Supply, various lengths