

55-gallon Drum(s) Option ⁽¹⁾

1. Type: Closed-head drum fabricated in accordance with DOT Performance Oriented Packaging standard UN 1A1.
1. Size: Up to 55-gallons.
2. Recommended Number of Drums: Two to eliminate need for placarding and Commercial Drivers Licenses. Greater number of drums may be transported only with the approval of the State FMO (BLM)/Forest FMO (FS) and compliance with DOT and CDL regulations.
3. Location: Forward of rear axle unless existing permanently mounted equipment (e.g., water tank, tool box) prevents this installation. In those cases, the drum(s) will be mounted as far forward as possible and must still be within the zone of rollover protection provided by the truck cab. If the existing equipment prevents the drum from being located within the rollover protection zone, the drum(s) cannot be transported in that truck unless the equipment is relocated or removed and the drum(s) is fully located within the rollover protection zone. This is zone defined by running a cord from the top of the truck cab to the top of the truck's side walls at the rear of the bed. Any portion of a drum that extends above this cord is not within the rollover protection zone.
4. Securing: Drum(s) to be individually secured in vertical position using straps specifically designed to secure cargo. The drum must be secured and located in such a manner to prevent its movement and without causing damage to the drum itself. MTDC will include drum-securing procedures in the Tech Tip it will be preparing for issuance by the end of 2003. These procedures must be used after the Tech Tip is issued.
5. Pump, Hose and Nozzle: Pump, hose, and nozzle to be UL listed for use with flammable liquids. Hose to be electrically conductive with internal bonding wire. Hose to have strain relief or swivel where it connects to dispensing nozzle to preventing kinking and damage to internal bonding wire. These requirements apply to manual and electric pumps. Electric pump to be wired directly to vehicle power source with in line fuse located as close as possible to the battery. If pump is wired to allow removal of the tank, an explosion-proof connector is required. Power cord to have strain relief where it connects to pump. Integrity of pump's power cord insulation must be maintained. Use of electrical tape is not acceptable for electrical insulating purposes. Power cord to be run in split loom from the power source until it passes through the trailer bed and is within three feet of pump.
6. Manual Pump Removal: Pump must be removed prior to transportation.
7. Hose Storage: Fuel dispensing hose may not be stored or transported on trailer bed. Rack, reel, straps, or similar retaining device to keep the hose off the floor of truck bed where it may be damaged by other transported items (e.g., pulaski) is required.
8. Fuel Dispensing: Torch to be in direct contact with ground when being filled with fuel. Hose nozzle to be in contact with open torch before dispensing.
9. Fire Protection: 2A 10 B:C extinguisher to be located outside of trailer bed and cab within reach of torch filling area before dispensing fuel.

10. Rollover Protection: Drum(s), electric pump, piping (if any), and hose must be within perimeter of truck bed, below the height of its cab, and within rollover protection zone.
11. Markings for Drum: Each drum must be marked with the proper shipping name and the DOT exemption number. The proper shipping name is: "FLAMMABLE LIQUID, n.o.s., (diesel and gasoline mixture), UN 1993." The markings must be of a durable material with red lettering on a white background. The markings for the proper shipping name must have a width of at least 0.16-inch and a height of one-inch. The DOT exemption number is the number DOT will assign to the exemption allowing the fire program to dispense fuel while the drum is still on the vehicle and transport the drum with the electric dispensing pump and hose in place. DOT has indicated that they would grant an exemption. This number will be provided to the field after the exemption is approved. The drum must be plainly and durably marked "DOT-E" followed by the exemption number assigned by DOT. The drum cannot have any old markings on it that may obscure or reduce the effectiveness of these markings.
12. Placarding for Drum: Not required provided the total weight of all hazardous materials being transported (e.g., fusees, saw gas, individual drip torches, etc.) is less than 1,001 pounds. If the total weight of all hazardous materials exceeds 1,001 pounds, the appropriate placard for each hazard class being transported must be displayed. Placards must be secured to the vehicle in a holder specifically designed for placards. The placards appearance, construction, and placement must be in accordance with the requirements of 49 CFR 172.516 through 172.560.
13. Labeling: All drums of drip torch fuel must have the diamond shaped "FLAMMABLE LIQUID" label on them. The label has a red background with white text. The label design is shown in 49 CFR 172.419. Maintain or replace label as necessary. The drum cannot have any old labels on it that may obscure or reduce the effectiveness of this label.
14. Drum Inspection Criteria: Drum to be replaced and properly disposed of if one or more of the criteria is met;
 - a. Convex bulging of either drum head greater than the plane of its rim.
 - b. Gaps, bulges, or seam separations at bungs, joints, head seams, or side seams.
 - c. Any visible leaking or seepage along a seam.
 - d. Dents or gouges greater than 1/8-inch deep from plane of surrounding surface.
 - e. Dents or gouges greater than 1-inch in length.
 - f. Significant rust.
 - g. Any drum exposed to fire or intense heat regardless of visual condition.
15. Shipping Papers: Must be carried on the vehicle readily accessible to the driver or in a pouch on the driver's side door. The following information is required on shipping papers ⁽²⁾:
 - a. Proper shipping name, hazard classification, packing group, and identification number for each hazardous material being transported. For

drip torch fuel this information is, “flammable liquid, n.o.s., (diesel and gasoline mixture), 3, PG II, UN 1993.”

- b. Total quantity of each hazardous material being transported in each type of packaging (e.g., drum, jerrican-style safety can).
 - c. Separate entry must be prepared for each packaging type (e.g., drum, case of fusees)
 - d. Total quantity of each hazardous material being shipped in each packaging type must appear before the proper shipping name or after the identification number.
 - e. Emergency Response Information: The information to be provided includes a telephone number that is staffed by a person knowledgeable of the hazardous materials being shipped and guidance that describes the hazards and response actions that should be taken in the event of a release. The telephone number must be staffed at all times the hazardous material is in transportation. The hazards and response action guidance is to be provided by attaching to the shipping papers a copy of the Material Safety Data Sheet (MSDS) for each hazardous material (e.g., diesel and gasoline) being transported. The guidance can also be fulfilled by providing a copy of the DOT Emergency Response Guidebook with the shipping papers and referring to the appropriate response guides on the shipping papers. [Note: The Chemtrec “1 800” number cannot be used unless the local office responsible for the shipment has a contract with Chemtrec. See page 60 of the *Hazard Assessment and Proposed Resolution for Combination Gelled-Fuel Batch Mixer/Terratorch and Drip Torch Fuel Transportation* report, dated March 6, 2002 for additional details on Emergency Response Information.]
16. DOT Training: BLM employees with job responsibilities related to the packaging and/or transportation of hazardous materials must receive training related to those responsibilities as required by 49 CFR 172, Subpart H, Training. This training would include but not be limited to the preparation of shipping papers. The regulations require individuals to be tested and certified as competent in the DOT regulations and procedures applicable to their job requirements. This training is available from private companies throughout the U.S and from the U.S. DOT Training Center in Oklahoma City. Contact your state/field office HAZMAT Coordinator for a training source near you. Refresher training is required every three years.

Footnotes:

(1) Transportation and dispensing of drip torch fuel from a tank is preferred over a drum because of the numerous safety issues associated with handling full drums (e.g., strained backs, pinched fingers, etc.) The use of a drum(s) to transport drip torch fuel is recommended only for intermittent small fire operations.

(2) A laminated preprinted shipping paper along with laminated copies of MSDSs for diesel and gasoline should be carried in each vehicle. This laminated form should

identify each hazardous material that is typically transported by its proper shipping name, hazard class, packing group, and identification number. Blank columns in which the quantity of each hazardous material (e.g., drip torch fuel, fusees) and packaging type (e.g., tank, drum, container) will be noted should follow that information. If other hazardous materials are being transported, copies of their MSDSs must also be attached to the shipping papers. An emergency response information telephone number and a reference to the attached MSDSs must be noted on the laminated form.