A Guide to Accumulation and Shipment of

WASTE ASKAREL FLUIDS

Note: The following instructions are intended only as a guide. For additional instructions refer to the ANSI CIOT document, "Guidelines for Handling and Disposal of Capacitor and Transformer Grade Askarels, Containing Polychlorinated Biphenyls", available from the American National Standards Institute, 1430 Broadway, New York, New York 10018.

ACCUMULATION OF WASTE FLUIDS

DRUMS - WHAT TO USE

55-gallon drums: Must be 18-gauge steel or heavier and have a 2-bung head.

5-gallon drums: Must be 24-gauge steel or heavier.

(Drums must meet DOT 17-E specifications)

DO NOT USE: Old drums
Rusted drums
Corroded drums
Damaged drums
Drums with weak walls or seams

FILLING DRUMS

LIQUID WASTE ONLY

Keep all solid materials out of drums used for waste askarel liquid.

Solid materials (sludge, rags, nails, paper, sawdust, floor sweeping chemicals, etc.) must be accumulated and disposed of separately. Contact your environmental department for proper disposal methods for solid materials.

Keep water out of drums

Waste askarel fluids shipped to Monsanto for incineration must not contain more than 1% water, or possible damage to the incinerator may result.

Do not overfill drums

Airspace is needed to allow for possible thermal expansion of the fluid:

Minimum airspace: 55-gallon drums -- 1 1/2 - 2 inches
5-gallon drums -- 1 inch

Failure to leave sufficient airspace can result in possible fluid leakage or seam failure due to pressures caused by fluid expansion.

SEALING DRUMS

Use a proper bung seal, inspecting the bung and the drum opening to insure tight, leak-proof seal.

Do not use damaged bungs, rags, pieces of wood, or other inappropriate materials to seal drums.

STORING FILLED DRUMS PRIOR TO SHIPMENT

If askarel-filled drums must be stored prior to return to Monsanto:

. Inspect Drums for Leakage

Inspect drums for leakage around seams and bung seal, making sure all seals are tight and leakproof.

. Clean Up Spillage

Clean the outside of the drum of any spilled fluids, following approved cleaning methods. Properly dispose of materials and any water used to clean drums.

. Store In Protected Area

Drums should be stored in an enclosed area where they will be protected from possible damage and inclement weather.

. If drums must be stored in an exposed area, store drums on their sides so that rain water will not accumulate on the top of the drums. (As drums "breathe", water could be drawn into the drum through the bung seal). Use blocks or other device to keep drums stationary.

. Do Not Stack

Do not stack drums, whether stored on their sides or on end.

IN-PLANT DRUM TRANSPORTATION

. Use Proper Drum-Handling Equipment

Askarel-filled drums should be moved only with proper drum-grabbing devices. A parrot beak type of drum-grabbing device will reduce the possibility of damage to drums. Common drum handling devices of this type are the Lift-O-Matic, manufactured by Marvel Industries, or the Vert-O-Matic drum carrier.

. Pallets Not Recommended

Askarel-filled drums should not be palletized. If pallets must be used:

. Be sure pallets are properly constructed and undamaged to minimize the possibility of the drum falling from the pallet while being transported.

. Steel-band all drums to their pallets

. If 2- or 4-drum pallets are used, drums should be banded together horizontally as well as vertically to the pallet.

. So that four drums can be loaded across the width of a truck to prevent shifting in transit, single-drum pallets should be no more than 23 inches in width, multiple (2 or 4) drum pallets no more than 46 inches wide.

DRUM LABELING

The following procedure must be adhered to for labeling askarel-filled drums shipped to Monsanto. For EACH Shipment:

1. Contact: Mr. C. R. Field
Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166
(314) 694 3024

2. Supply the following information to Mr. Field:
   - Number of drums in the shipment.
   - Name and address of person to receive drum labels.
   - Purchase order number, if a specific number is to be used.
   - Anything out of the ordinary about the fluid or the shipment.

3. Mr. Field will then send the following:
   - Letter of authorization for the shipment
   - Pre-addressed shipment/warning labels for each drum.
   - Hazardous Fluids Warning to be attached to the bill of lading
   - Terms of shipment and charges, if any.

Upon receipt of above materials:

2. Fill in EACH label with Monsanto identification number, product description and YOUR telephone number.
3. Label EACH drum
4. Put Monsanto identification number and your telephone number

on bill of lading and attach Hazardous Fluids Warning.

LOADING AND SHIPMENT

- Perform a final check for leakage, damage, and to assure bungs are sealed tightly.
- Load and secure drums to prevent shifting in transit.
- If shipment is part of a mixed consignment, be certain drums are stowed away from any human or animal feedstuffs or pharmaceuticals.
- Be certain driver notes Hazardous Fluids Warning and telephone numbers in case of leakage or other problems.
- Do not ship via piggyback.

Please note: Monsanto checks all shipments upon arrival. Failure to adhere to above guidelines could result in fluids being returned to the shipper and additional charges assessed.

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