Safe Handling Guidelines for Flexible Intermediate Bulk Containers (FIBCs)

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(The terms FIBC and SBC are used interchangeably. The term MSC refers to half-ton capacity FIBCs)

STORAGE OF EMPTY FIBCs
Empty FIBCs and liners should be kept clean and stored undercover in such a manner that accidental damage, exposure to sunlight, and extreme climatic conditions are avoided.

FILLING FIBCs
FIBCs are preferably filled with the base of the bag supported by the ground or a pallet, and the body of the bag supported by the top lift device.

If the FIBC has a discharge spout, it should be tied off or closed before filling.

STABILITY OF FILLED FIBCs
When filled, the ratio of the height of the bag to the width/diameter of the bag should not be more than 2:1. Stability of bags may be improved by vibration during or after filling.

LIFTING FIBCs
When lifting FIBCs with a forklift truck, be sure that the forklift tines are spaced correctly. All lifting loops, sleeves, or other lifting devices should be vertical, so that no lateral forces will be created in the FIBC. Be sure that the lifting loops are not twisted. Forklift tines should have rounded edges and/or protective covers. FIBCs should be raised or lowered smoothly.

HORIZONTAL CARRYING WITH FORK LIFT TRUCKS
The forklift truck must be suitable for the load to be carried. When traveling with a FIBC hanging from the forklift tines, there is a danger of the truck becoming unstable. The FIBC should be held close to the mast and as low as possible with the mast tilted slightly backwards. Make sure that the
FIBC body will not be damaged by the wheels of the truck. The load should not restrict the view of the driver.

FIBCs must not be dragged. The truck should be brought to a stop before the FIBC is raised or lowered.

HANDLING WITH CRANES OR HOISTS
The hooks, spreader bars or other devices used for lifting, should have rounded edges and/or protective covers. FIBCA recommends the use of safety hooks with an integrated latch to prevent the hook from accidentally slipping off the loop. Hooks should have a sufficiently large radius to prevent squeezing the loop.

When the FIBC is suspended, the loops must be vertical, without any twists or knots.

RIGHTING FIBCs
To right an FIBC that has toppled on its side, an endless fabric sling, wound through all the lifting loops, should be used. Any attempt to lift the FIBC using fewer loops than those provided, may result in the loops being torn off.
EMPTYING FIBCs
FIBCs are usually emptied by gravity, but can also be emptied by suction. When emptying by gravity through a bottom discharge spout, the rate of discharge can be controlled by restricting the outlet. Flow can be stopped by lowering the FIBC onto the discharged load.

FIBCs with a plain/solid bottom can be emptied by cutting the base of the bag. Again, the flow can be stopped by lowering the bag onto the discharged load.

No one should stand under an FIBC during discharge.

A bottom discharge spout should be opened only when the FIBC is suspended over a safety support that will prevent injury to the operator in the event of a failure of the lifting device.

Under no circumstances should anyone stand underneath a suspended FIBC; or place their arm beneath an unsupported FIBC.
STACKING OF FILLED FIBCs
When stacking filled FIBCs 2 or more high, every effort should be made to ensure that the stack is stable. Where possible, the stack should be formed against at least 2 retaining walls, preferably 3, to achieve maximum stability. Generally, the higher the stack, the greater the number of retaining walls required.

Where only free stacking is possible, a pyramid method should be used.

FIBCs should not be pushed into a stack as this can cause damage to the sides or back of the FIBC.

STORAGE OF FILLED FIBCs
If FIBCs are stored outside, attention should be paid to the top closure. Be sure the top closure is properly tied off. FIBCs should be covered with waterproof, U.V protected material to avoid water collecting on the top of the FIBC and to prevent damage from sunlight.

Be sure that FIBCs are not standing in water.

HAZARDOUS MATERIALS
Special care should be taken when handling bags with UN or DOT regulated materials. For questions concerning the material, refer to the supplier's MSDS. Questions concerning FIBCs should be referred to your FIBCA member supplier.

EXPLOSIVE MATERIALS AND AREAS
If FIBCs are to be filled or emptied in flammable or explosive atmospheres, special features such as anti-stat material should be utilized. Your FIBCA member supplier can make recommendations for use in these areas.