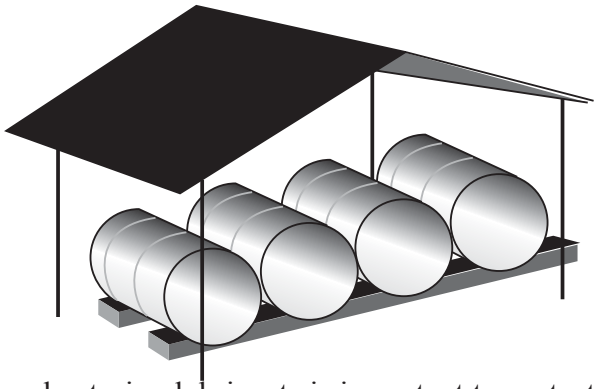
ELBA LUBRICATION INC. USA

Storage of Packaged Lubricants



Properly storing lubricants is important to protect them from all sources of contamination and excessive heat and cold which can lead to degradation. They should be stored inside, when possible, where it is clean and dry. Storing lubricants outside is not recommended because of the following:

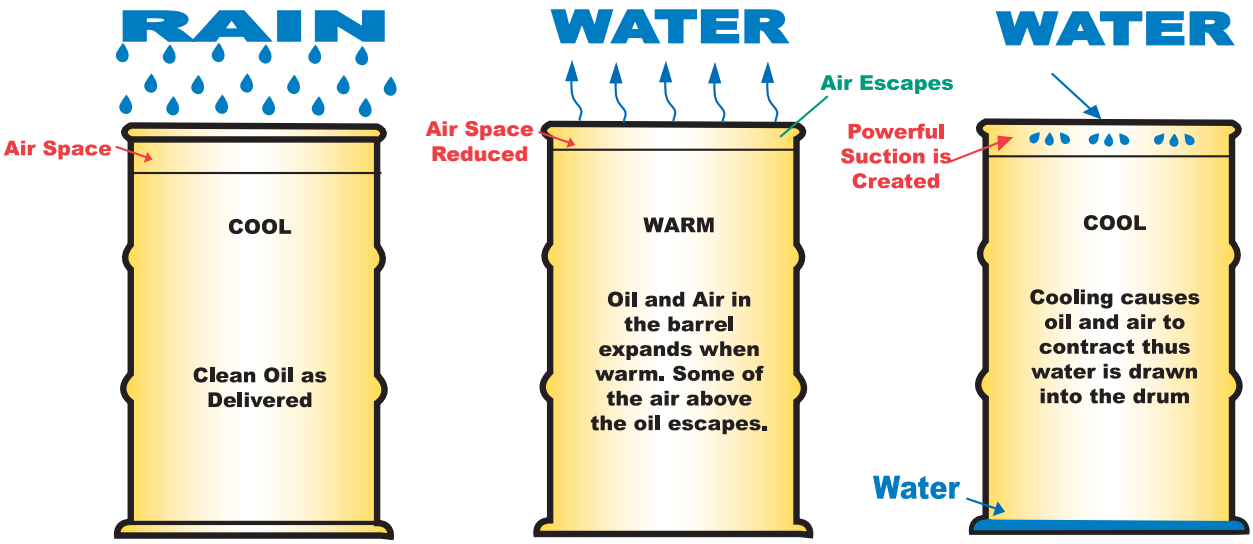
1. Water will enter the drum around the bungs and contaminate the product if drums are left standing on end. Water collects on the top of the drum and is pulled in (this is referred to as breathing) due to the rising and falling of the ambient temperature even though the bung is sealed.
2. Extreme heat and cold can alter physical properties in some lubricant products. Quarts and pails also have a tendency to breathe.
3. Drum markings and/or identification may fade and become unreadable making the product unusable, or resulting in product misapplication.
4. Dirt and rust can accumulate inside the chime of the drum and contaminate the product when opened.
5. Rust can develop inside the drum if water leaks in and contamination occurs.

When lubricants in drums are stored outside, the following procedures are recommended:

1. Drums should be covered with a tarpaulin or some type of shelter to protect them from the weather and water collecting on the drum.
2. If they cannot be covered, drums should be laid on their sides with the bungs horizontal so that standing water is avoided and the breathing of moisture is reduced. If drums have to be stored standing on end, drum covers must be used.
3. Regardless of position, drums should be stored on racks or blocks several inches above the ground to prevent moisture damage.
4. Maintain good housekeeping; keep storage area free of debris and standing water.

When lubricants in drums are stored inside, the following procedures are recommended:

1. Inside storage areas should be clean, dry, and orderly. Regular cleaning schedules should be set up and maintained.
2. Products should be arranged and/or located strategically for efficient movement in or out of the warehouse.
3. Lubricants, because of their high flash points, are class III B combustible products (flash points above 200º F). However, insurance, fire and OSHA regulations should be adhered to. Warning signs should be posted to alert people to the presence of combustible materials.
4. Small packages (i.e. quarts, 35# pails, 5 gallon cans, etc.) must be stored inside out of the weather.



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Handling of Lubricants

The handling of lubricants refers to those operations involving receiving and movement to and from storage. Lubricant containers should be examined at the time of delivery to make sure that all caps, seals, bung covers, etc., are in place and that each product has a legible label or stencil indicating the name of the product.

Drums should be unloaded from trucks or rail cars using a skid, hydraulic lift gate or lift truck to prevent damage and injury. Lubricants packed on a pallet can be unloaded and transported directly to storage using a forklift truck. Drums and/or pails should never be dropped to the ground. This may cause burst seams, cause leakage, and could lead to product contamination.

Bulk Lubricants

Bulk delivery of lubricants can offer many advantages. Some of the benefits are:

1. Reduced Handling Time and Costs
Bulk oil eliminates the high cost of handling drums, use less manpower and less lifting equipment. Consider the number of times full and empty drums are handled around a plant.

2. Reduced Contamination Hazard
When using drums, you risk contamination every time you change the transfer pump from an empty drum to a full one. Storage tanks eliminate pump changes and other types of contamination errors that might occur.

3. Better Inventory Control
Some drums require a deposit, but others are non-returnable. Keeping track of drum deposits is often an accounting headache. Bulk oil eliminates this costly paperwork.

4. Reduced Storage
Central storage tanks take up less than half the space required by conventional drums. This valuable space is freed for other uses.

5. Reduced Waste
Bulk oil handling eliminates the wasted oil that is left in the drums. The estimated waste is approximately 10 per cent of the original contents.

Before receiving a bulk delivery, tanks should be cleaned and flushed, if necessary, for the new product and checked to make sure that there is enough room to receive the product. When dispensed into smaller package sizes, care should be taken to prevent cross contamination. Dedicated lines and pumps must be used for certain products. However, if this is not possible, lines and pumps should be flushed clean before dispensing products with different characteristics.

Sampling and Testing

Lubricating oils are sampled and/or analyzed for the following reasons:

1. To provide customer service.
2. To determine if the product is still suitable for continued use.
3. To confirm product quality.
4. To check for product contamination.
5. To determine if a product is on specification prior to shipping.

In providing customer service, analysis can assist in establishing oil drain intervals. Products in service for any length of time should be examined periodically to determine if they are still suitable for use. Analysis of lubricants prior to shipment confirms product quality and insures that products have not been contaminated.

The proper taking of samples for analysis is important. The sample should be *representative* and in a *clean* container. Samples from tank cars and/or trucks should be taken from the middle. If a bottom sample is required, a small amount of product should be drained off prior to collecting the sample. Samples from drums and tanks should also be obtained from the middle portion. When sampling a product with visible contaminants, make sure some of the contaminant is collected with the sample and that a clean, dry container is used.

Always Use Proper Handling Procedures