Safe management of hazardous waste in WFP workshops

Informative Booklet
Effectively managing hazardous waste enables WFP to improve workplace health and safety, as well as environmental and financial management.

This booklet is a user-friendly guide for WFP’s fleet and workshop staff to safely and effectively manage hazardous waste, such as lubricants, welding gases and paints.
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BATTERIES

DOs

Operations

Ensure batteries are well maintained: clean battery terminals, maintain electrolyte level and verify the voltage with a multimeter.

Health and Safety

Use personal protective equipment (safety boots, goggles, gloves) when filling/replacing battery acid and cleaning terminals with baking soda.

Storage

Drain used batteries and store them in a well-ventilated and enclosed area, on a hard surface. Avoid stacking more than three lines of batteries, and no more than 50 batteries in the same location at a time.

Disposal

Acid must be drained, neutralized with baking soda and put in a sealed, plastic container. Neutralized acid should be transported to a hazardous waste facility. Metal and plastic parts can be recycled through an authorized contractor.
DON’Ts

Operations

Do not handle batteries or clean the terminals without gloves. Remember, batteries contain acid and baking soda is used to clean terminals. Both are toxic and corrosive.

Storage

Do not store used batteries in an area exposed to heat, without proper ventilation and without draining the acid first (batteries will corrode and leak contaminants into the environment).

Disposal

Do not donate/sell batteries to informal recyclers. They may not have the proper protective equipment or the procedures to ensure workers’ health and safety.
TYRES

DOs

Operations

Inflate tyres to the right pressure. Inflating tyres too much or too little reduces the tyre’s lifespan and generates waste.

Health and Safety

Use appropriate personal protective equipment (safety boots, goggles, gloves) when handling tyres, especially heavy duty tyres.

Storage

Store tyres on a hard surface in a well-ventilated, roofed area to prevent accumulation of rainwater and mosquito breeding.

Disposal

Tyres for disposal can be donated to construct playgrounds, retaining walls or for other local projects.
DON’Ts

Operations

Avoid washing tyres when it is not necessary. Constant contact with water erodes the tread. Ensure wastewater is collected in the sewage system, septic tank or equivalent.

Health and Safety

Do not work without adequate tools and equipment to minimize risk of injury.

Storage

Do not store tyres exposed to the sun or rain, without protection, in order to avoid cracking of new tyres and mosquito breeding.

Disposal

Never burn tyres. Uncontrolled burning of tyres releases toxic fumes which are harmful to human health and the environment.
OIL FILTERS

DOs

Operations

Ensure filters are correctly installed in line with the manufacturer’s recommendations to maximize the lifespan of each filter and minimize waste.

Health and Safety

Use appropriate personal protective equipment (safety boots, goggles, gloves) when handling filters, especially when hot-draining.

Storage and Disposal

Drain oil from filters into a container and store the filters in a labelled drum, on a hard surface. Filters should be disposed of by a licensed contractor.
DON’Ts

Storage

Do not mix metallic filters with paper or cardboard filters. Remember that metallic filters can be recycled if properly drained, and paper filters could be used as fuel in facilities such as cement factories.

Disposal

Do not throw, bury or dispose of used filters on bare soil or waterways.
SPENT OIL AND LUBRICANTS

DOs

Operations

To maximize the lifespan of lubricants, brake fluids and hydraulic fluids, always ensure you are using the right fluid, compatible with each vehicle and equipment.

Health and Safety

Always use appropriate personal protective equipment (safety boots, goggles, gloves) when handling spent oil and lubricants.

Storage and Disposal

Separate spent oil and lubricants by type. Store them in closed, labelled containers on a pallet or hard surface. Spent oil and lubricants should be disposed of by an authorized contractor or local recycler.
Lubricants should not be mixed, unless they have the same viscosity index, quality or API grade. If lubricants are mixed, they won’t work for long.

Avoid stockpiling large volumes of spent oil and lubricants, as they might become a fire hazard. Avoid handling spent oil and lubricants without protective equipment.

Do not mix spent oil and lubricants of different types in the same container and do not store spent oil and lubricants without lids and on unprotected soil.

Do not throw, bury or dispose of spent oil and lubricant drums or containers on bare soil or waterways.
**DOs**

**Operations**

To avoid exposure to asbestos while working on brake pads, use a basin with water and detergent to contain the dust.

**Health and Safety**

Use appropriate protective equipment such as a mask or a respirator to prevent dust and asbestos inhalation.

**Storage**

Used brake pads or shoes suspected of containing asbestos must be stored in labelled, closed containers (if you are not sure, treat all brake pads/shoes as if they contain asbestos).

**Disposal**

Used brake pads that contain asbestos should be disposed of as hazardous waste by a licenced contractor. If parts do not contain asbestos, they can be recycled with other scrap metals.
DON’Ts

Operations

Do not handle brake pads as if they were asbestos-free. It is not possible to distinguish if a component has asbestos just by looking at it.

Health and Safety

Do not work on brake pads without a mask (as a minimum) to avoid exposure to asbestos.

Storage and Disposal

Do not store new or used brake pads without protection or clear labelling. Remember, brake pads might contain and release asbestos fibres. Do not dispose of them on unprotected soil or waterways.
REFRIGERANTS AND WELDING GASES

DOs

Health and Safety - AC

Use appropriate tools and personal protective equipment (safety boots, goggles, gloves) when loading refrigerant gas.

Health and Safety - Welding

Use appropriate tools and personal protective equipment (full-face mask, safety boots, gloves, overalls) when welding.

Storage

Store oxygen and fuel gas cylinders separately in a well-ventilated area. Always label the cylinders and chain them or sector them so that they remain upright.

Disposal

Whenever possible, prioritize refrigerant recovery using appropriate equipment, rather than venting gas into the atmosphere. Ensure proper disposal/exchange of empty cylinders by authorized contractors.
Health and Safety

Do not weld without the proper equipment. Welding fumes are toxic and long-term exposure to the welding damages the eyes.
PAINTS AND THINNERS

DOs

Operations

When opening tins of paint, use a tool to avoid damaging the tin. This prevents waste from the paint from drying out.

Health and Safety

Use the appropriate personal protective equipment (PVC gloves, safety boots, protective overalls) with a hood and an air-purifying respirator.

Storage

New and used paint should always be labelled and closed with a lid to avoid spills and release of vapours. Fire hazards should be minimized and the area should be properly identified.

Disposal

Water-based paint residue can be left out to dry. When no hazardous waste contractor is available, oil-based paint residue can be mixed with newspaper or absorbent material, left to dry and disposed of in a sealed container.
DON’Ts

Health and Safety

Do not paint vehicles without using proper protection and in an area without good ventilation. Avoid exposure to toxic fumes.

Storage and Disposal

Do not store paints and thinners without labelling or near other flammable materials (such as fuel) or other hazardous substances (such as chemicals).
Disused fuel tanks awaiting recycling should be stored at a safe distance from potentially flammable materials and spark sources and over a protected hard surface.

Use appropriate tools and protective equipment (safety boots, goggles, gloves) when handling used drums, regardless of the drum type and what it previously contained.

When used drums are well preserved, they can be reconditioned or reused (e.g. as waste containers). Before reusing any drum, ensure it is correctly relabelled and washed, ensuring that waste water is disposed of in oil tanks or the local sewage line.
DON’Ts

Storage and Disposal

Do not store unwashed empty drums where the remnants can leak out and contaminate soil and water. Exposure to heat and rain can attract mosquitos and other pests.
OTHER LIQUIDS AND CHEMICALS

DOs

Operations

Avoid manual handling of large drums. Use forklifts, manual pallet trucks or similar devices instead.

Health and Safety

In case of a toxic chemical spill (e.g. brake fluids and coolants), use a spill kit or absorbent material to contain the spill and clean the area. Protective equipment should be worn.

Storage

Store waste chemicals in labelled closed containers, in a well-ventilated area. Always keep one designated container for each chemical. Ensure the material of the container (plastic metal, etc.) is compatible with the chemical. Verify this information in the MSDS.

Disposal

Waste chemicals and residual material used for cleaning should be properly stored and transported by an authorized disposal facility. Some chemicals, such as coolants, can be recycled with special equipment.
DON’Ts

Storage

Do not mix waste chemicals with new chemicals. Maintain a clean and tidy workshop to avoid spills and contamination.

Disposal

Do not dispose of hazardous chemicals in drains, bare soil or waterways. Remember, hazardous chemicals can be toxic to humans and harm the environment.
**ELECTRONIC WASTE**

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<th>DOs</th>
<th>DON’Ts</th>
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<tr>
<td><strong>Health and Safety</strong></td>
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<tr>
<td>![Image of protective equipment] Use appropriate protective equipment when handling electronic components from vehicles, with particular focus on switches and lightbulbs.</td>
<td>![Image of hazardous situation] Do not remove electronic parts or metals from vehicles without proper protective equipment. Avoid exposure to toxic components like mercury.</td>
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<th>Storage and Disposal</th>
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<tr>
<td>![Image of labelled container] Store e-waste in labelled containers and ensure storage does not last more than one year. Electronic parts such as switches can be reused when they are in good condition. For transporting the waste, engage an authorized contractor.</td>
<td>![Image of hazardous situation] Do not dispose of electronic waste on bare soil or waterways.</td>
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AIRBAGS

DOs

Storage

When new airbags are stored in the workshop, use an airbag cabinet or steel container that has no exposed steel, is easy to clean and can be closed and locked.

Disposal

Ensure that airbags have been deployed or deactivated before disposal in a well-ventilated area. Seek expert assistance for the removal of airbags. Deployed airbags can be disposed of with municipal waste.

DON’Ts

Operations

Never place your head or body close to the front of an undeployed airbag, especially when fitting it, or removing it from a vehicle. Never hold the trim cover facing towards you.

Storage

Never expose airbags to excess heat (over 90 degrees Celsius) due to the risk of explosion.
Use the right tools

Use the right tools and equipment when performing operations such as handling heavy-duty tyres or transporting large fuel drums, to reduce the risk of workplace accidents.

Keep order

Store spare parts in a properly ordered manner to minimize the risk of falling objects, which can cause accidents.

Batteries and acid

Use safety gloves, boots and goggles when changing/refilling battery acid and cleaning terminals. Acid is corrosive and can cause burns to skin and eyes.

While painting

Use PVC gloves, safety boots, protective overalls with hood and an air-purifying respirator when painting. Avoid exposure to toxic fumes.
Handling asbestos

Use a mask or a respirator to prevent dust and asbestos inhalation while working on brake pads and other spare parts. Avoid exposure to asbestos dust, it is highly toxic.

While welding

Use an appropriate full face mask, safety boots, gloves and overalls when welding. Protect yourself from fire risk and your eyes from the welding arc.

Safe storage of waste

Store hazardous waste (asbestos, electronic waste, spent oil, etc.) in proper containers and designated areas. Avoid exposure to toxic substances.

In case of spills

In case of a chemical or fuel spill, use a spill kit or an absorbent material to contain the spill and clean the area. Use protective equipment (safety boots, goggles, gloves) when performing the cleanup.
HEALTH AND SAFETY

Use the right tools

Do not work on vehicles without proper tools and equipment.

Keep order

Avoid an untidy and disorganized workshop to prevent trip hazards and accidents. An untidy workshop is risky and uncomfortable.

Batteries and acid

Do not handle batteries, battery acid or clean the terminals without gloves. Both acid and caustic soda are toxic and corrosive.

While painting

Do not paint vehicles without the proper protection. Avoid exposure to toxic fumes.
DON’Ts

Handling asbestos

Do not handle brake pads, clutch parts, or gaskets without protective equipment, as they may contain asbestos. It is not possible to distinguish if a component contains asbestos just by looking at it.

While welding

Do not weld without the proper equipment. Welding fumes are toxic and long-term exposure to the welding arc damages eyes.

Safe storage of waste

Do not mix hazardous waste, residues or chemicals. Keep the workshop tidy to avoid spills, exposure to toxic substances and contamination.

In case of spills

Do not throw, bury or dispose of any type of waste (solid or liquid) on bare soil or waterways.
For any questions, please contact: HQ.GLOBALFLEET@WFP.ORG