CARWASH

CAR WORKSHOPS: A SERIOUS GAME APPROACH TO MANAGING WASTE CONSIDERED HAZARDOUS

Grant agreement no: 2014--1-ES01-KA202-004483

KA2-2014 – Cooperation for innovation and the exchange of good practices

Co-funded by the Erasmus+ Programme of the European Union

**BEST PRACTICE:**

“Correct hazardous waste handling”

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1. INTRODUCTION

The objective of this document is to provide guidance to employees and owners/manager of car workshops with regards to the correct handling and management of hazardous waste.

Here you can find basic concepts and tips for handling hazardous wastes and as such avoid the risk of an accident that could contaminate the environment.

Practically all waste of a car workshop can be considered hazardous, reason for which these types of waste must be handled with special care when it comes to their management, storage and transport. This document provides some tips and tracks on how to do this in a safe and correct manner.

2. BASIC CONCEPTS

Hazardous waste: Waste having one or more of the hazardous characteristics listed below (including their packaging or containers):

- H1- Explosive
- H2- Oxidant
- H3- Highly flammable or combustible
- H4- Irritant
- H5- Harmful
- H6- Toxic
- H7- Carcinogenic
- H8- Corrosive
- H9- Infectious
- H10- Reproductive toxicant
- H11- Mutagenic
- H12- Waste which releases toxic or very toxic gases when in contact with air, water or acid
- H13- Sensitizing
- H14- Toxic for the environment
- H15- Waste capable, after disposal of yielding another substance by any means, for example a leachate, which possesses any of the characteristics listed above.

EWC code: The EWC is a list of waste types, established by the European Commission Decision 2000/532/EC1, which categorizes wastes based on a combination of what they are made off, and the process or activity that produces them. It provides a standard framework for the comparison of waste data (statistics) across all member states.

The EWC is divided into 20 chapters, most of which are industry-based, although some are based on materials and processes. Individual waste types are assigned a six-digit code: the first two digits specify the chapter, the next two specify the subchapter, and the last two are specific to the waste type.

Hazardous (special) waste is signified by entries where the six-digit EWC code is marked by an asterisk (*). Hazardous waste entries can also have a non-hazardous ‘mirror entry’. These will appear consecutively in the list, but one will be marked with an asterisk (*), normally with reference to ‘containing hazardous substances’, for example:

17 05 03* Soil and stones containing hazardous substances
17 05 04 Soil and stones other than those mentioned in 17 05 03
Hazardous Waste Manager: The person or public/private entity, accredited for collecting, transporting, valueing and disposing of waste.

3. CONTENT: BASIC NOTIONS IN HANDLING HAZARDOUS WASTE IN A CAR WORKSHOP.

3.1 General recommendations

- It is prohibited to abandon, spill or dispose waste in an uncontrolled manner.

- Is the obligation of the one producing the waste to assist the public administration in the surveillance and control of waste-producing activities and inform immediately in case of disappearance, loss, or spill of waste.

- All waste generated by repairing a vehicle have to be separated by its state; danger and characteristic to avoid difficult treatment and risk.

- The car workshop must have a specific area for storage of hazardous waste. This area must not contain elements that can cause additional risks (electrical panels, compressors, electric pumps...etc.)

- All waste must be packed in hermetically closed tanks to avoid spilling, leaking or evaporation, with a bowl for any spilling on the floor next to it.

- The tank must have solid and resistant closures, must be in good condition and have no defect in its structure.

- The underground tanks must have a detection system and a spill contention systems, with a double-skinned structure.

- In the storage area, the roof or upper deck must avoid rain producing an increase of volume or carry-over effect of the waste and also to prevent solar irradiation.

- The storage area floor must be impermeable, preferably made of cement, resistant to the physic-chemical properties of the stored waste. There should be no connection between the sewage network and the rainwater system. The storage area must be placed away from these water systems.

- The storage area must have a ventilation system.

- The waste should not be stored in an open enclosure without roof, especially when it concerns waste in dust state, so as to avoid its dispersion.

- The tanks for hazardous waste must be hermetic, and the material of the tanks must not react with the waste it contains.

- All storage tanks should have a bowl for spilling or other have a another type containment system to avoid spilling on the floor, this specially true for tanks containing liquid wastes. The capacity of the containment system must be at least equivalent to 10% volume of storage tank. These systems must be impermeable and resistant to physic-chemical properties of the waste.

- Some effective containment system are:

  ✔ Fixed retention bowls: Bowl or other fixed recipient, intended to contain accidental spills occurring with storage tanks.
Mobile retention bowls: Portable recipient of retention, its material is compatible with the products it will contain and do not require civil works for installation. The same operation as fixed retention bowls.

Airtight manhole: System with impermeable floor, manhole in slope with a kerb of sufficient tall. The manhole will drive the spilled waste to hemetic manhole for its collection.

Airtight perimetral grating: The impermeable floor drives the spill to the hermetic grating and retains it.

- It is necessary have absorbent material for cleaning hazardous wastes spills
- The waste storage area must be clean and tidy to avoids unnecessary risks. The storage area must be spacious allowing for manoeuvres with machinery if necessary.

The hazardous waste storage tanks must fulfil with security norms and they must be labelled in the correct way, with an legible label and the following minimum content:

- The code and description of the waste according to the list established by Decision 2014/955 / EU.
- The code and the description of the hazardous characteristics in accordance with national legislation.
- Name, address and telephone number of the hazardous waste producer.
- Storage starts date of the waste.
- The nature of the risks posed by waste, indicated by the pictograms described in Regulation (EC) No 1272/2008.

- The labels must be correctly affixed, with legible letter, and in a visible place.
- The label can be obtained through the authorized hazardous waste manager or the Risk and Labour Prevention Service.
- If the storage area or tanks have old labels, these must be eliminated and replaced by a new label to avoid confusion in the origin or content of the waste in the tank.
- The characteristics recommended for the label are:
  - Size: Minimum 10x 10 cm
  - Material: Laminate
  - Moorings: Flexible adhesive material
  - Colour: White background, and black letters
  - Pictograms: According to the legislation
- The operations for transporting and disposing of hazardous wastes must be done, ALWAYS by an authorized hazardous waste manager.
- The time maximum of storage recommended for hazardous waste is 6 month.
- The maximum time of storage for non hazardous wastes is of 2 years for waste that will be recovered and and 1 year for waste that will be destroyed.

- It is necessary to keep: notifications, notes, bills, and registers with regards to the hazardous waste for at least 5 years.

4. **REMEMBER:**

All the storage tanks for hazardous waste must be labelled according to legislation. The codes of the most frequent hazardous waste in the car workshop are

13 02 08* other engine, gear and lubricating oils

16 06 01* lead batteries

15 01 10* packaging containing residues of or contaminated by dangerous substances

15 02 02* absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

14 06 03* other solvents and solvent mixtures

14 06 02* other halogenated solvents and solvent mixtures

16 01 14* antifreeze fluids containing dangerous substances

16 01 07* oil filters

16 01 13* brake fluids

16 01 11* brake pads containing asbestos

08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

13 05 01* solids from grit chambers and oil/water separators

13 05 07* oily water from oil/water separators

16 05 04* gases in pressure containers (including halons) containing dangerous substances

13 07 01* fuel oil and diesel

13 07 02* petrol

13 07 03* other fuels (including mixtures)