

AUTOMOTIVE END-OF-LIFE VEHICLE (ELV) SERVICES

Intertek provides global testing and consulting services to support compliance with the ELV Directive 2000/53/EC for automotive and related industries.



Overview

Motor vehicles which have come to the end of their life and are no longer suitable for use generate millions of tonnes of waste. The ELV directive is aimed at increasing the recyclable content of vehicles manufactured or sold in the European Union. European Union legislation stipulates how new vehicles should be designed and how this waste should be collected and treated in order to minimise the impact on the environment, ensure the better reuse of the materials, and to improve energy conservation. The legislation applies to passenger vehicles and small trucks, excluding large trucks, vintage vehicles and special use vehicles.

Preventative Measures

- Vehicle and equipment manufacturers must consider the dismantling, reuse and recovery process of the vehicles when designing and producing their products. They have to ensure that new vehicles are:
 - Reusable and/or recyclable to a minimum of 85% by weight per vehicle
 - Reusable and/or recoverable to a minimum of 95% by weight per vehicle
- Vehicle and equipment manufacturers must avoid the use of hazardous substances such as lead, mercury, cadmium and hexavalent chromium in automotive products.

ELV Compliance Limits

Intertek's automotive ELV compliance testing services include trace level detection for the presence of lead, mercury, chromium-VI, cadmium and other trace chemicals.

- Lead limits 0.1 % (1,000 ppm)
- Mercury limits 0.1 % (1,000 ppm)
- Chromium VI limits 0.1 % (1,000 ppm)
- Cadmium limits 0.01 (100 ppm)

Limits are applied to homogeneous

materials, provided that these substances are not intentionally introduced. This means, deliberately utilised in the formulation of a material or component where its continued use is desired for the final product to provide a specific characteristic, appearance or quality.

Manufacturers, Importers, Distributors and Owners

- Manufacturers, importers and distributors must develop and utilise systems to collect ELVs and, where technically feasible, reuse parts from repaired passenger cars.
- Owners of ELVs (delivering for waste treatment) receive a certificate of destruction. This is necessary to de-register the vehicle.
- Producers incur all, or a significant portion of the costs involved in the delivery of a vehicle to a waste treatment centre. The owner of the vehicle realizes no expense, with the exception of rare cases, where the engine is missing or the ELV is full of waste.

REACH and ELV

There are similarities and differences between the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulation and the ELV Directive. The lead limit under REACH SVHC is 0.1% w/w, however, manufacturers can still produce products with lead exceeding 0.1% w/w if they can benefit from the exemption under Annex II in the ELV Directive. Producers or importers have the responsibility to:

1. Communicate information on substances in articles under article 33
2. Notify the European Chemical Agency under article 7

ELV Exemptions

Under Annex II of the ELV Directive, some applications are permitted to use lead, mercury, chromium-VI, or cadmium above the allowed limits.

- **Lead:** Using lead as an alloying element:
 - Steel for machining purposes and galvanised steel containing up to 0.35% lead by weight
 - Copper alloy containing up to 4% lead by weight
 - Others
- **Hexavalent Chromium:** Using hexavalent chromium as an anti-corrosion agent in the carbon steel cooling systems in absorption refrigerators for motor caravans up to 0.75% by weight, except where the use of other cooling technologies is practicable (i.e. available on the market for the application in motor caravans) and does not lead to negative environmental, health and/or consumer safety impacts.
- **Mercury:**
 - Using mercury in discharge lamps for headlight applications in vehicles and spare parts before 1 July 2012
 - Others
- **Cadmium:** Using cadmium in batteries for spare parts in electrical vehicles that are put on the market before 31 December 2008

The Intertek Advantage

Intertek's leading state-of-the-art testing and global compliance strategies provides companies with efficient and effective solutions for the End-of-Life Vehicle Directive.

Our services include:

- ELV Consulting
- ELV Technical File Documentation Support
- ELV Bill of Material (BoM) Assessments
- ELV Compliance Assurance
- Trace level detection for the presence of hazardous substances
- ELV Education and Training

