

Lessons Learned from the End-of-Life Vehicle (ELV) Directive and Applicability to WEEE and RoHS

MDSMapSM

**Producer Responsibility and
Product Stewardship Services for Industry**

Strategic Environmental Management Limited
122-126 Kilburn High Road
London NW6 4HY
United Kingdom

Tetra Tech, Inc. - Industrial Division
710 Avis Drive
Ann Arbor, Michigan 48108

ELV Background

- Came into force in 2000
- Required member states to enact into law by 2002
- Required that as of July 1, 2003, new vehicles placed on the market be free of lead, mercury, cadmium and hexavalent chromium (exemption allowed in Annex II)
- Requires end-of-life vehicles to be recycled to minimum of 85 percent by 2005 and 95 percent by 2015



Scope of Problem Faced by Vehicle Manufacturers (VM)

- Collecting on chemical content of each vehicle manufactured
- Estimated 50,000 parts per vehicle
- Hundreds of vehicle models each with several variations
- Thousands of materials used to manufacture parts
- Industry highly dynamic; parts



Prior to ELV

- Some auto manufacturers collected chemical content data against their own internal restricted substance lists (GM: GMW3059 and Ford: Restricted Substance Management Standard) resulting in the following drawbacks:
 - Suppliers were only required to report on parts containing restricted substances
 - Suppliers did not effectively analyze the chemical makeup of supplied parts and materials
 - Much of the data was low quality, if given at all



VMs Response to ELV

- VMs realized need to know about materials and substances are in their automobiles
- VMs began collecting data regarding the material and chemical make up of the parts in their vehicles
- Several VMs formed the IMDS Steering Committee to standardize a method for collecting data regarding parts' material and chemical makeup
- Committee hires EDS to create an internet-based data collection system named the International Material Data System (IMDS)



Sample MDS Screen

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer

Ingredients
Cylinder Head Unit Assembly 569194 / 0.01

Search Edit MDS Ingredients

Expand Collapse Filter

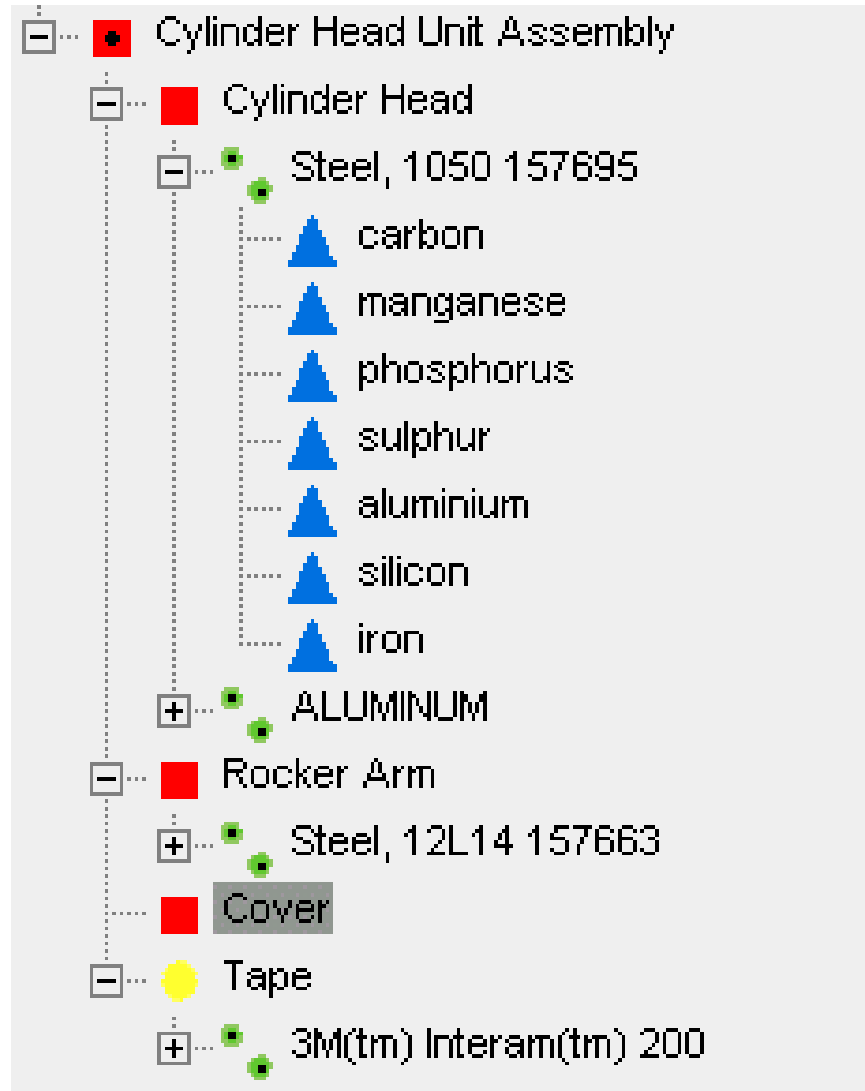
+ [Red] + [Yellow] + [Green] + [Blue] + [Orange] -

Type	Component
Description	Cover
Part/Item No. (Author)	
Measured Weight per Item	0 g
Tolerance	+/- 0 [%]
Calculated Weight per Item	0 [g]
Deviation	0 [%]
Quantity	0 Items

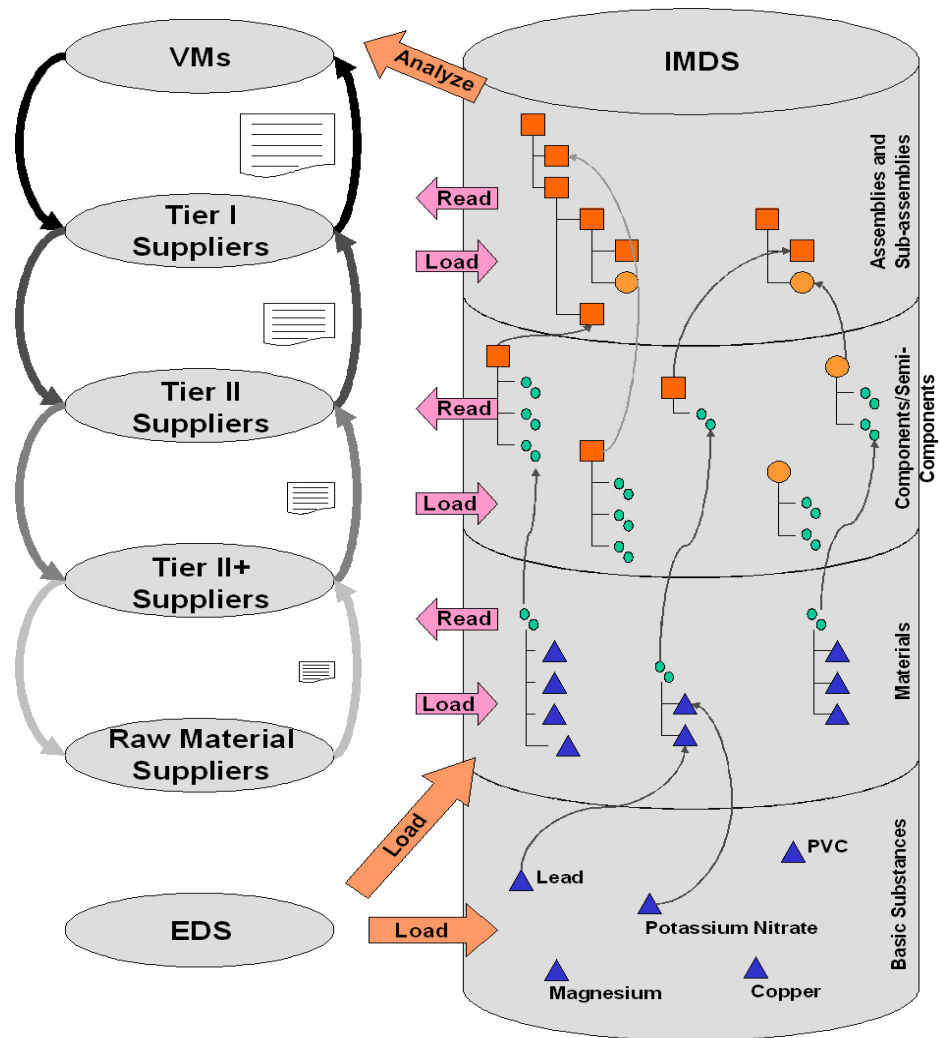
--> Module Save Next



Ingredients



IMDS Data Collection/Flow Concept



Advantages of IMDS

- **Standardized Report Method and Format** - suppliers learned one system could be used to report to many clients
- **Worldwide Accessibility** - internet availability allowed access to all suppliers regardless of location (Pac-Rim, Europe, etc.)
- **Complete Reporting and Accountability** - requiring suppliers to account for every part and material (as well as most chemicals) forced them to fully investigate the material and chemical make up of parts
- **Library Building** - information input for one customer can be utilized for reporting to another



Disadvantages of IMDS

- **Time Consuming** - Data for complex parts or companies producing numerous products may be too slow to be practical
- **Difficult** - IMDS is not an intuitive system requiring some training by most users
- **Limited Functionality** - no drag and drop ability, limited copy functionality
- **Automation Function Not Available** – initially, only the interface for the information upload was available
- required users to buy or build another database



Other Problems Encountered

- Multiple reporting requirements
- No standardized List of Reportable Substances
- Little consideration given to proprietary concerns
- Communication of requirements not consistent throughout organizations (e.g., purchasing, engineering, and environmental)



Other Problems Encountered

- Reporting format developed by OEMs with little input from suppliers
- ELV / IMDS reporting was not incorporated into quality / parts approval process initially
- Reporting requirements varied widely year to year



Current Status of ELV Data Collection

- Ongoing for over three years
- Most companies still find only 60 to 80 percent of supply base is responsive (after extreme pressure is applied)
- Tier 1s forced to create hybrid reporting requirements meeting all OEMs individual requirements
- Auto industry moving towards common list of reportable substances (ILRS)
- Problems still encountered with accounting for entire assemblies (part weights, finished materials, etc.)



Recommendations from ELV World

- Identify an industry standardized format for collection and exchange of data
- Communicate the need, requirements, and potential risks up and down the supply chain
- Identify a common list of reportable substances
- Implement a phased approach
- Be cautious of self declaration



Further Information Available

- ***EPR Matters*** newsletter - to subscribe please email info@mdsmap.com
- MDSMap Website: www.mdsmap.com
- IMDS Website: www.mdsystem.com



Questions or Comments

Contact Information:

Chris Harden

MDSMap - Tetra Tech, Inc. - Industrial Division

710 Avis Drive

Ann Arbor, MI 48108

734.213.5088

734.741.0621 (fax)

email: harden@mdsmap.com

