IMDS and GADSL

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Outline

• International Material Data System (IMDS) background

• IMDS Current Status and Data Utilizations

• Global Automotive Declarable Substance List (GADSL) and Its Process

• IMDS Tomorrow
Background: Typical Auto Info

- >2,000 end-item part numbers, bumper, engine, lighting, etc., in a typical vehicle
- >10,000 components, bulbs, screws, electronic modules, etc., in a typical vehicle
- >1,000 different materials used in auto industry, cast irons, polypropylene, Nylons, solders, e-coat, etc.
- >10,000 chemicals used in automotive industry, vehicles/plants, etc.
- >1,000 tier 1 suppliers for a typical OEM
- ~100,000 all tiers of suppliers in auto industry globally…
- …
• In 1998, Audi, BMW, DaimlerChrysler, Ford, Opel, Porsche, VW and Volvo contracted with EDS(HP) to develop IMDS to meet the incoming EU End of Life Vehicle Directive.
• Current OEMs joining the IMDS >30
• IMDS is a web-based system which is used to track all the materials in vehicles. IMDS went online in June of 2000 when ELV enacted.
  – Over 180,000 active users, from >70,000 companies and > 30 global car manufactures (OEMs) worldwide, have registered and are using IMDS.
  – >30,000,000 IMDS sheets have been submitted to IMDS system (Tier 2, Tier 3 submitted to Tier 1, and Tier 1 submitted to OEMs, etc.)
  – >3,000,000 datasheets were submitted to OEMs
  – Industrial substance list—Global Automotive Declarable Substance List (GADSL) was developed and used by all auto OEMs/suppliers within IMDS.
  – It covers all major continents--Asia, Europe, Americas and Africa with help centers as well.
Data Input Process Scheme

Process Scheme

1. Supplier 1
2. Supplier 2
3. Central Database
4. Supplier 3
5. Car manufacturer
6. Process Scheme
Supplier Chain information flow

IMDS provides a common method for identifying materials, substances and attributes. Suppliers proactively send material composition information.

IMDS manages aggregated data sent forward through the supply chain.
How IMDS Datasheets Used by OEMs

• Information/datasheets are downloaded from IMDS to customers’ (including OEMs) specific systems in order to:
  – Run calculations to determine the range of recoverability and recyclability percentages
  – Compile documentation to be submitted for Type Approval and substance compliance
  – Create pretreatment and dismantling manuals for each RRR type approved model
  – Phase out restricted substances
  – Assess impact and develop plan to minimize cost
How IMDS Supports to Meet Regulations

• Development of database for materials and substances is a key enabler to meet current and future environmental regulations
  – Receipt & review of IMDS information prior to PPAP enables OEMs to know the reportable and regulated substances used in our vehicles.
  – When environmental regulations change, IMDS reports provide information on parts with reportable & regulated substances. OEMs and suppliers can then work efficiently to eliminate the substances, modify the products, meet ELV->REACH-> etc.
  – Lessons learned from current parts can be used for future programs
Global Automotive Declarable Substance List  
GADSL (ILRS before 2005)

- Developed by the Global Auto Stakeholders
  - Complete supply chain involved!
  - Americas
  - Asia/Pacific
  - Europe/Africa/Middle East

- Single common list for reporting substances in IMDS within auto industry

- Voluntary, criteria driven list, to assure environmental and health regulation compliance
GADSL Governance Structure

Steering Committee
18 members

Americas
- OEMs
- Part Suppliers
- Chem/Plastic Suppliers

Europe/Africa/Middle-East
- OEMs
- Part Suppliers
- Chem/Plastic Suppliers

Asia/Pacific
- OEMs
- Part Suppliers
- Chem/Plastic Suppliers

OEMs from Korea and China will be contacted & included under Asia/Pacific regional structure.
Go to http://www.gadsl.org Contact List by July to suggest changes for following year.

Individual substance proposed → Regional evaluation per criteria → Steering Committee → Included in list
→ Not included in list → Hold Box → 4 to 6 month process → Updated GADSL
IMDS Tomorrow

• Continuous improvements on data quality and user friendliness of the system

• With upcoming regulations IMDS may require modifications to handle additional chemicals, avoid “Conflict Mineral” regions, etc.

• These will be addressed in a strategic planning project called – IMDS 2020, which was started last year

• Collaborate with/help other industries for similar processes and systems, electronic, aerospace industries, etc.