Global Trends of Chemical Risk Management

How do we ensure we can position investment as a strategic enabler of the knowledge and technology advantage for defense and security posture, while improving environmental safety and occupational health?
What is REACH?

- Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
  - EU regulation (EC/1907/2006)
  - Came into force 1 June 2007
- Complex and evolving regulation that has yet to be fully implemented
- Shift in responsibility

Pre-REACH: Public authorities must prove a chemical is unsafe.

Post-REACH: Industry must prove a chemical is safe before it may enter the market.

- REACH applies to (almost) all chemicals and chemical products, and even certain articles containing or made from chemicals that are manufactured in or imported into the EU
Significance of REACH to DoD

Acquisition and Sustainment

Commerce, international supply chain, and mission to NATO are at risk
2016 DoD REACH Strategic Plan

• Background
  – July 2010, USD[AT&L] issued a memorandum known as the “DoD REACH Strategic Plan”
  – 2014 concerns from EUCOM
  – 2014 REACH Working Group was re-established with membership from across the Services and Office of the Secretary of Defense (OSD) components
  – REACH Working Group concluded that an update of the REACH Strategic Plan was needed

• 2016 DoD REACH Strategic Plan
  – USD(AT&L) memorandum directs responsible components to take action as designated with
Developing DoD REACH Policy and Guidance

2014 DoD REACH Working Group

Sub-Group White Papers
Legal, Compliance, Foreign Military Sales, Inventory Assessment

DoD Issuance of Organization-Specific Policies
- FMS Policy Memorandum
- AT&L EI&E Hazardous Materials DoDI

2016 Revised DoD REACH Strategic Plan
DoD REACH Strategic Plan Goals

Assure Access and Use of Mission-Critical Substances

GOAL 1

Ensure Performance of Substitute Substances

GOAL 2

Forecast and Prepare for Disruptions

GOAL 3

Minimize Impacts on the FMS Program

GOAL 4
DoD Enterprise-wide Process to Identify, Assess, and Mitigate Risks

**DoD REACH STRATEGIC PLAN**

**GOAL 1**
Assure Access and Use of Mission-Critical Substances

**OBJECTIVE 1.1**
Scanning Monthly
ID REACH substances of interest to DoD

**OBJECTIVE 1.2**
Assess and Mitigate Risks
Identify mission critical products containing REACH regulated substances

**OBJECTIVE 1.3**
Risk Characterization
Conduct Phase I and II Impact Assessments for mission critical substances

**OBJECTIVE 1.4**
Develop Risk Mitigation Strategies
Develop policies and management actions

**GOAL 2**
Ensure Performance of Substitute Substances

**OBJECTIVE 2.1**
Understanding where and how substitutes are used and ESOH risks

**OBJECTIVE 2.2**
Substitutes: Leverage Private-Sector & DoD RTD&E
Develop and integrate substitutes

**OBJECTIVE 2.3**
Implementation by Components

**GOAL 3**
Forecast and Prepare for Disruptions

**OBJECTIVE 3.1**
ID supplier based changes in cost/availability and potential reformulations/substitutes.
Survey Defense Industrial Base

**OBJECTIVE 3.2**
Leverage EU MS Exemptions
Track EU MOD REACH exemption procedures and status of requests

**OBJECTIVE 3.3**
Assess and Mitigate Risks
Develop risk mitigation plans for critical substances and products

**GOAL 4**
Minimize Impacts on the FMS Program

**OBJECTIVE 4.1**
Understand REACH Impacts to FMS
Number of lost sales due to REACH requirements.

**OBJECTIVE 4.2**
Accommodate customer requests for REACH compliance data
Frequency of customer requests and outcomes

**OBJECTIVE 4.3**
Accommodate customer requests for substance substitutions
Frequency of customer requests and outcomes

**COMMUNICATION**

**IDENTIFY RISK**

**ASSESS RISK**

**MITIGATE RISK**

**COMMUNICATION**
REACH Strategic Plan Responsibilities
Enterprise wide

Department of Defense
Secretary of Defense

Office of the Secretary of Defense
Deputy Secretary of Defense, Under Secretary of Defense, Assistant Secretaries of Defense, and other specified officials

Department of the Army
Secretary of the Army
Office of the Secretary of the Army
Army Staff

Department of the Navy
Secretary of the Navy
Office of the Secretary of the Navy
Chief of Naval Operations

Department of the Air Force
Secretary of the Air Force
Office of the Secretary of the Air Force
Headquarters Air Force

Joint Chiefs of Staff
Chairman of the Joint Chiefs of Staff
Joint Staff

Office of the Inspector General of the Department of Defense

Defense Agencies (20)
- Defense Advanced Research Projects Agency
- Defense Commissary Agency
- Defense Contract Audit Agency
- Defense Contract Management Agency
- Defense Finance and Accounting Service
- Defense Health Agency
- Defense Information Systems Agency
- Defense Intelligence Agency
- Defense Legal Services Agency
- Defense Logistics Agency
- Defense Military Intelligence Agency
- Defense Security Cooperation Agency
- Defense Security Service
- Defense Threat Reduction Agency
- Joint Improvised-Threat Defeat Agency
- Missile Defense Agency
- National Geospatial-Intelligence Agency
- National Reconnaissance Office
- National Security Agency/Central Security Service
- Pentagon Force Protection Agency

DoD Field Activities (9)
- Defense Media Activity
- Defense Technical Information Center
- Defense Technology Security Administration
- DoD Education Activity
- DoD Human Resources Activity
- DoD Test Resource Management Center
- Office of Economic Adjustment
- Washington Headquarters Services

Combatant Commands (9)
- Africa Command
- Central Command
- European Command
- Naval Command
- Pacific Command
- Southern Command
- Special Operations Command
- Strategic Command
- Transportation Command

Service Leaders
DoD Component
Military Service

- Defense Agency Identified as a Combat Support Agency (CSA)

As of 9/2/2015

• OUSD Acquisition, Technology and Logistics
• OASD Energy, Installations, and Environment
• OASD Logistics & Materiel Readiness
• OASD Research & Engineering (R&E) Enterprise
• ODASD Manufacturing and Industrial Base Policy

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Lead and Supporting DoD Organizations

Acquisition and Sustainment

1. Assure Access and Use of Mission Critical Substances
   - Obj. 1.1: Identify REACH substance of interest to DoD
   - Obj. 1.2: Identify mission critical products
   - Obj. 1.3: Conduct Phase I and II Impact Assessment
   - Obj. 1.4: Develop risk management actions and policy

2. Ensure Performance of Substitute Substitutes
   - Obj. 2.1: Identify and understand where & how substitutes are used
   - Obj. 2.2: Develop and integrate substitutes

3. Forecast and Prepare for Disruptions
   - Obj. 3.1: Identify changes in cost, availability, & reformulation of - based products
   - Obj. 3.2: Identify and track status of EU MOD exemption requests
   - Obj. 3.3: Develop risk mitigation plans for critical

4. Minimize Impacts on the FMS Program
   - Obj. 4.1: Identify impacts from REACH
   - Obj. 4.2: Anticipate/respond to customer requests for REACH compliance data
   - Obj. 4.3: Anticipate/respond to customer requests for substitutes

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• The Strategic Plan goals and detailed objectives all boil-down to a simple set of actions: Avoid DoD supply chain and mission impacts by:
  – Monitoring evolving REACH regulations
  – Tracking industry’s response to REACH requirements
  – Understanding how and where DoD uses REACH-regulated chemicals in Europe and worldwide
  – Implementing risk mitigation actions, when necessary – including the substitution of targeted chemicals
  – Communicating across the DoD enterprise, with EU partners, and industry to reduce REACH-related uncertainty
  – Monitoring FMS for potential impacts

• EUCOM is not alone: Strategic Plan mobilizes DoD enterprise to assess and manage risks to help EUCOM avoid impacts
REACH Risk Management Challenge

Thousands of REACH registered substances...

...Hundreds of restrictions...

...Dozens of substances potentially targeted for phase-out...

...All constituents in tens of thousands of products...

...Some of them potentially ***mission critical*** for weapon system operations and maintenance...

...With regulatory status changing annually.

How to effectively manage so many potential risks?
# Process to Identify DoD Uses of REACH Chemicals

## Ensure Access and Use of Mission-Critical Substances

**GOAL 1**

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<th>Assess Risks</th>
<th>Risk Characterization</th>
<th>Risk Management Strategies</th>
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<td><strong>Objective 1.1</strong>&lt;br&gt;ID REACH Substances of Interest to DoD</td>
<td><strong>Objective 1.2</strong>&lt;br&gt;ID Mission-Critical Products Containing REACH-Regulated Substances</td>
<td><strong>Objective 1.3</strong>&lt;br&gt;Conduct Phase I &amp; II Impact Assessments for Mission-Critical Substances</td>
<td><strong>Objective 1.4</strong>&lt;br&gt;Develop Policies and Management Strategies</td>
</tr>
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**Authorization List (Annex XIV) & Restriction List (Annex XVII)**

- **Not of Interest to DoD:**
  - “For supply to general public” (toluene in adhesives and spray paint)
  - Chemical not relevant to DoD (fragrances)
  - Regulated use not relevant to DoD (use of lead in certain jewelry articles)

- **Regulated but not mission-critical**
  - Mission-critical, but Low Risk

- **Risk Management Strategies for Regulated Mission-Critical Substances**
  - Policy
  - Acquisition Strategy
  - RDT&E for Alternatives
  - ...

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Objective 1.1 - Scanning

- 2017 Assessment
  - Restriction List
    - Reviewed 68 entries
    - 43 entries have potential to impact DoD and require further analysis
  - Authorization List
    - Reviewed 31 entries
    - 30 entries have potential to impact DoD and require further analysis
- Currently updating the 2017 Assessment
  - Reviewing 3 additions to the Restricted List and 12 additions to the Authorization List
- U.S. regulations (e.g., TSCA) place added regulatory burden on some REACH chemicals
Objectives 1.2, 1.3 and 1.4

Data-Driven Methodology

Data mine DoD and service materiel management and ESOH systems to convert thousands of potential problems . . .

. . . . into a list of top-priority chemicals with actual usage at installations in Europe . . .

. . . . then use a SME review to narrow the focus to the smaller set of chemicals that may need risk mitigation

Mission critical, high risk

Trichloroethylene  Nonylphenol
Phthalate  Ammonium  Diglyme
Disocyanate  Sulphates  Dichromate
PbSO  Cyclohexane
Diisobutyl  Lead  Cadmium
Sodium Dichloromethane  DEGME
Strontium  Di-isononyl ether
Nickel  DEGBE  compounds
Dibutyl  Toluene  MDI nitrate
Methoxyethoxy)ethanol  Chromate  C6H4(OH)C9H
Methylene diphenyl  DIBP
Bis(2-methoxyethyl butoxyethoxy)ethanol

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How do we ensure we can sustain the warfighter’s mission critical chemicals and move them freely throughout the world while improving environmental safety and occupational health? Mission critical chemicals such as those in ammunition, torpedoes, breaks, corrosion resistant paint, or firefighting foam.
Discussion

- DASD Environment will conduct annual reviews to evaluate implementation, determine effectiveness of objectives, and update/revise the plan accordingly.
- Recognize that we have similar goals: to work together with our DIBs and international partners to protect human health and the environment while protecting national security.

![Image of cartoon illustrating how standards proliferate](how-standards-proliferate.png)