REACH:
EU REACH and Waste Framework Directive
SCIP Database

A SiliconExpert White Paper
EU REACH and Waste Framework Directive

SCIP Database

REACH

Overview:
On June 1, 2007, the EU and member states of the European Economic Area imposed new regulations for the Registration, Evaluation, Authorization, and Restriction of Chemical substances, commonly referred to as REACH. Any company that manufactures, imports, or distributes products in Europe, must comply with REACH legislation.

REACH process:
1. Registration
2. Evaluation
3. Authorization
4. Restriction

ECHA New Article Definition:
Article is an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition.

September 10, 2015, (Case C-106/14), Articles incorporated as components of a complex product must be notified to the European Chemicals Agency when they contain a substance of very high concern in a concentration above 0.1% (w/w)

The cost of non-compliance is difficult to calculate but can be significant. Fines and penalties vary by country, and by the level of offense. But fees represent only a small portion of the price for compliance failure— hidden costs can take a toll. For instance, non-compliance can result in litigation, public relations issues, lost market share, and overall business disruption. In addition, companies that must remove a product from the market face lost sales and revenues.
Waste Framework Directive “WFD”

Overview:

The aim of the WFD was to lay the basis to turn the EU into a recycling society. The Waste Framework Directive sets out measures addressing the adverse impacts of the generation and management of waste on the environment and human health, and for improving the efficient use of resources which are crucial for the transition to a circular economy.


✓ Reinforce the waste hierarchy
✓ Facilitate recovery through decontamination
✓ New Article 9 on waste prevention objectives/measures, including a new ECHA database “SCIP Database”
✓ Extended producer responsibility – modulation of fees

It is part of the EU’s waste legislation package, contributing to the EU's circular economy policy.

Strengthens the need for good supply chain communication as foreseen under REACH, where companies must communicate in the supply chain and notify ECHA about Candidate List substances in articles through SCIP database.
Example from ECHA guideline
Moving up the waste hierarchy

Art. 9(2) of the revised Waste Framework Directive (WFD) target to:

- To establish and maintain a database for information down in the supply chain on substances in articles
- To provide access to the database to “waste treatment operators”, and to consumers (upon request)
- To enable submission of information by EU suppliers of articles
- To make information available to potential users

- Using less material in design and manufacture.
- Keeping products for longer; reuse.
- Using less hazardous material
- Checking, cleaning, repairing, refurbishing, whole items or spare parts
- Turning waste into a new substance or product.
- Includes composting if it meets quality protocols
- Includes anaerobic digestion, incineration with energy recovery, gasification, and pyrolysis which produce energy (fuels, heat, and power) and materials from waste; some backfilling
- Landfill and incineration without energy recovery
SCIP Database

Overview:
By the end of 2019, The European Chemicals Agency (ECHA) established a new database on the presence of hazardous chemicals in articles that contain as be known “Candidate List substances” for waste treatment operators and consumers.

SCIP is the database for information on Substances of Concern In articles as such or in complex objects (Products) established under the Waste Framework Directive (WFD).

Companies must start submitting the following from 5 January 2021 onwards:

- Information that allows the article to be identified
- The name, concentration range and location of the SVHC in the article
- Possibly other information on the safe use of the article

The SCIP database has three main objectives:

1. Decrease the generation of waste containing hazardous substances by supporting the substitution of substances of concern in articles placed on the EU market.
2. Make information available to further improve waste treatment operations.
3. Allow authorities to monitor the use of substances of concern in articles and initiate appropriate actions over the whole lifecycle of articles, including at their waste stage.

Obligation

The SCIP database complements the existing communication and notification obligations for Candidate List substances in articles under REACH.

The obligation to submit a SCIP notification covers all articles placed on the EU market containing a substance of very high concern on the Candidate List in a concentration above 0.1 % w/w.
The following suppliers of articles need to provide information to ECHA:

- EU producers and assemblers,
- EU importers,
- EU distributors of articles and other actors in the supply chain placing articles on the market.

**Note:** Retailers and other supply chain actors supplying articles directly and exclusively to consumers are not covered by the obligation to provide information to the SCIP database.

**SCIP Timeline:**

- **End of 2019**
  - Initiating of establishing the new SCIP database.

- **Feb 2020**
  - SCIP prototype released V0

- **Apr 2020**
  - IUCLID Desktop will release

- **Oct 2020**
  - SCIP v1 release (open to receive data)

- **5 Jan 2021**
  - Duty for suppliers of articles to submit information to the database kicks in
SCIP data requirements

On September 9, 2019, the European Chemicals Agency (ECHA) published new information requirements for articles with high-interest material (SVHCs) which will be published in a forthcoming database that will be referred to as the SCIP database.

**Mandatory**

- Article Name
- Primary article identifier *
- Primary article identifier value
- Article category *
- Production in EU *
- Safe use *
- Safe use instruction
- Linked Article
- Number of Units
- Candidate list version *
- Candidate list substance
- Concentration range

**Optional**

- Other Name *
- Other Article Identifier *
- Height
- Length
- Width
- Diameter
- Density
- Weight
- Volume
- Color *
- Disassembling instructions *
- Additional Material Characteristics
- Candidate list substance no longer present

**Mandatory / Optional**

- Material Category *
- Additional material characteristics *
- Mixture Category (EUPCS) *

- * refers to Pick List values
- Candidate list version will not be mandatory in Version 1 of SCIP database
The main data required for SCIP database notification

- Company Name
- Code Country
- Street Postal
- Phone
- Email URL etc.....

- Article Name
- Primary Article Identifier
- Other Article Identifier
- Article Category
- Production in EU
- Picture
- Characteristic type
- Safe use Instruction
- Disassembly Instruction
- Complex Object
- Number of Units etc....

- Candidate List Version
- Candidate List Entry (substance/Group)
- EC Number
- CAS Number
- Concentration Level (Range)
- Material/Mixture Category
Overview of the SCIP Notification Process

1. Dossier Preparation
2. Dossier Submission
3. Submission Report

SCIP Database: Information Flow

- Duty Holders
- Prepare Data in Bulk (Offline)
- Prepare Data (Offline)
- Sign up & Authenticate
- Submit Data Online
- Submit Data Manually
- Validate Submitted Data
- Provide Data Externally
- ECHA SCIP
- Aggregate & Store Data
- SCIP D8
- ECHA Submission portal
- System-to-System
- Consumers and Other Interested parties
- Waste Operators
SCIP Tools for notification

**Preparation Ways**

*Downloaded SW and not available now*

“April 2020”

*Online creating dossiers V0 and available now for Testing and V1 will available in October*

*Uses an alternative SCIP data collection process using the standard API directly to the ECHA Submission portal.*

And then submit all prepared dossiers to **ECHA Submission portal (ECHA Cloud Service)**

*an online tool to submit SCIP notifications according to the harmonized format.*
SiliconExpert Example

Requirements of SCIP dossier for our Example Machine washer “Complex object”
Dataset Phase

Dossier Phase
DOSSIER: Washer

UUID: 17d6-1a90a4-c2016-1001-1000-3f9e31
Dossier UUID: 17d6-1a90a4-c2016-1001-1000-3f9e31
Author:
Date: 2020-03-04T11:50:51+02:00
Remarks: Complex

Dossier header

Name
SCIP article notification

Version
scip 1.0

Name (given by user)
Washer

Dossier subject

Dossier subject
Washer

Submitting legal entity

Dossier creation date/time
Wed, 4 Mar 2020, 11:50:51+0200

Dossier submission remarks
Complex

Used in category
Submission Portal

Submission status: Succeeded

Dossier type: SCIP notification
Submission number: 615819
Submitted IUCLID version: 6.4

Submitted by: Name

SCIP Information
- SCIP number: 615819
- Article name: Washer
- JAN (Japanese Article Number): 123456789
- Dossier name: Washer
- Dossier UUID: 5199e31
- File name: 5199e31.162
- Notification type: Initial

Submission events
- 04/03/2020 11:51: Dossier submitted
- 04/03/2020 11:51: Dossier passed validation checks

Article Information
- Washer
  - JAN (Japanese Article Number): 123456789
- Motherboard
  - EAN (European Article Number): 654987
- Capacitor
  - Catalogue number: 123
  - EC: 215-290-6, CAS: 1319-46-6, Trilead bis(carbonate) dihydroxide
- Motor
  - Part number: XHHHXXX
- O-Ring
  - EAN (European Article Number): 5833225544777
  - EC: 205-017-9, CAS: 131-18-0, Dipentyl phthalate (DPP)
Some Abbreviations and Definitions from ECHA

**Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
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<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>CAS</td>
<td>Chemical Abstracts Service</td>
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<tr>
<td>EC</td>
<td>European Commission</td>
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<td>WFD</td>
<td>Waste Framework Directive</td>
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<tr>
<td>IUCLID</td>
<td>International Uniform Chemical Information Database</td>
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<tr>
<td>Art.</td>
<td>Article</td>
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<tr>
<td>SVHC</td>
<td>Substance of Very High Concern</td>
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<tr>
<td>SCIP</td>
<td>Substances of Concern In articles as such or in complex objects (Products)</td>
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<tr>
<td>EuPCS</td>
<td>European Product Categorization System</td>
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<td>RIP</td>
<td>REACH Implementation Project</td>
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<tr>
<td>EAN</td>
<td>European Article Number</td>
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<tr>
<td>JAN</td>
<td>Japanese Article Number</td>
</tr>
<tr>
<td>GTIN</td>
<td>Global Trade Item Number</td>
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<tr>
<td>GPC</td>
<td>Universal Product Code</td>
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<tr>
<td>UDI</td>
<td>Unique Device Identification</td>
</tr>
<tr>
<td>ISBN</td>
<td>International Standard Book Number</td>
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<tr>
<td>O5A</td>
<td>Once An Article, Always An Article</td>
</tr>
<tr>
<td>CL</td>
<td>Candidate List</td>
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<tr>
<td>PL</td>
<td>Pick List</td>
</tr>
<tr>
<td>LE</td>
<td>Legal Entity</td>
</tr>
<tr>
<td>RSL</td>
<td>Restricted Substance List</td>
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## Definitions

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<th><strong>Definitions</strong></th>
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<td><strong>Article</strong></td>
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<td><strong>Complex Object</strong></td>
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<td><strong>Mixture</strong></td>
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<td><strong>Substance</strong></td>
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<td><strong>IUCLID</strong></td>
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<td><strong>System-to-System Service</strong></td>
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<td><strong>ECHA Submission portal</strong></td>
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<tr>
<td><strong>Article category</strong></td>
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<tr>
<td><strong>Primary Article Identifier</strong></td>
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<td><strong>Candidate List substance</strong></td>
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<td><strong>Candidate List version</strong></td>
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<td><strong>Material category</strong></td>
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<td><strong>Mixture category</strong></td>
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<td>---------------------</td>
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<tr>
<td><strong>Dossier</strong></td>
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<tr>
<td><strong>Dataset</strong></td>
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**Summary**

On **July 11, 2018**, The European Chemicals Agency (ECHA) announced and decided that it will establish a new database on the presence of hazardous chemicals in articles that contain as be known “Candidate List substances” for waste treatment operators and consumers and by the **end of 2019**, (ECHA) initiated to establish it.

The scope of the database focuses on articles as such or in complex objects containing Candidate List substances in a concentration above 0.1% w/w. Therefore, the substance entity refers to a Candidate List substance.

Products which are Not articles or complex objects, e.g. a mixture, are specifically Excluded from the scope of the database

On **September 2019** ECHA Published the required information and features for submitting on SCIP database

ECHA established (IT) tools IUCLID >> “International Uniform Chemical Information Database” to allow any EU suppliers of articles to submit the required information to ECHA and make a prototype of database ready for testing, without any formal obligation by suppliers.
For IT tools

ECHA made available the test submission tools for preparing and submitting information to the SCIP database.

The submissions to the SCIP database can be prepared in the most suitable way, depending on your specific business needs and your IT systems:

- Online in IUCLID Cloud; available now
- Offline in IUCLID; will be available on April
- Using an IUCLID-compatible dedicated format for SCIP submissions in your company’s own system "System-to-System Service"

- **February 2020**, ECHA released the test prototype V0 of SCIP database
- **October 2020**, ECHA will release the first prototype V1 of SCIP database and will remove all data that submitted before

In **July 2020**, the deadline for states to enact the requirement for entry into the WFD database into law.

**Finally, On 5 Jan 2021**, the duty for suppliers of articles to submit information to the database kicks in

**References**

https://echa.europa.eu/scip-prototype
https://echa.europa.eu/documents/10162/28213971/scip_information_requirements_en.pdf/9715c4b1-d5fb-b2de-bfb0-c216ee6a785d