



The European voice of the
adhesive and **sealant industry**



Exchange Network on Exposure Scenarios (ENES 10)

(15 -16 November 2016, Helsinki)

Divina Gómez



Table of contents

- FEICA in brief
- Communication on safe use (formulator's view)
- Use Maps development
- Use Maps benefits
- Next steps



Association of the **European Adhesive and Sealant Industry**



FEICA **represents close to 800 adhesives and sealants producers in Europe**, through its

- National Association Members in 16 countries
- 21 Direct Company Members
- 7 Affiliate Company Members

(<http://www.feica.eu>)



Communication on safe use of chemicals

- The Exposure Scenario (**ES**) **concept relates to substances only**
 - Formulators deal with mixtures
- REACH does not prescribe **how to transmit the 'ES' information in mixture SDS**
 - Formulators have to analyse the SDS/ES received from their substances' suppliers
 - check against the use conditions (own sites and customers)
 - derive one set of safe use conditions for the mixture
 - communicate 'understandable safe use' to end-users via SDS

- Challenges for formulators:
 - 'ES' received are **difficult to analyse** (different formats and content)
 - 'ES' received **do not reflect reality** and are difficult to match
 - OCs/RMMs are not relevant or unrealistic
 - at present no advise on scaling options is given

Practical solutions for mixtures are needed!



Why did FEICA start to work on the ‘use packages’?

- **Better information on uses** (reality-based)
- **Standardised tools and templates** that
 - provide good basis for consistent risk assessments (robust data on uses)
 - facilitate the *compliance-check for formulators*
 - allow IT-exchangeability/compatibility
 - deliver *consistent and understandable information to end-users*

Working on these solutions via CSR/ES Roadmap (2013-2018) and ENES

✓ Initial feasibility study (2012) and [case study presented at ENES3](#)



How was the work organised?

Initial FEICA 'ES project'

- Goal:
 - ✓ Cover **majority of the typical adhesive/sealant applications** (80 – 90% of cases; not all)
- Scope:
 - ✓ **Workers**: Industrial & Professional applications (SWEDs)
 - ✓ **Consumers** (SCEDs)
 - ✓ **Environment** (SPERCs)
- Internal work structured in separate '**subprojects**' according to these specific uses
 - ✓ FEICA 'use packages'
- Need to combine these different elements in a common '**driving pack**'
 - ✓ FEICA Use Map

How was the work for the 'use packages' split?

Workers

- Main markets and main issues faced with the 'ES'
- Harmonised templates for upstream and downstream communication
- Explanatory document

Consumers

- Harmonised template for SCEDs
- Guidance on how to use SCEDs

Environment

- New developments for SPERCs
(Guidance, factsheets, background document)

➤ Projects for human health **run in tandem** with the new developments for environment



How to connect all these elements?

➤ Use Map concept as a ‘combining pack’

Development:

- First *use descriptors* compiled in 2009, to help M/I understand the use conditions of adhesives/sealants
- First ‘*use mapping*’ developed jointly with other DU sectors as the **Use Reporting (UseR) template**
 - low acceptance in previous registrations
- UseR template used as basis for current USE MAP, but **with improvements**

What has now been improved?

Former UseR

Number	Code	Short ES title	Short description of process or activity	use descriptors						Life Cycle Stage(s)						Exposure Modifier					RMM		SPERC (later)					
				Sector of use (SU)	Process Category (PROC)	Product category (PC)	Product Sub-category	Article Category (AC)	Article Sub-category	Environmental Release Category (ERC)	Manufacture	Formulation	end use			Service Life	duration and frequency (exposure time)	Outdoor	Indoor		respiratory protection	concentration of substance in the mixture (w/w)(optional)*		Eye protection (goggles)	protection of hands (gloves)			
1																												
2																												

Improved use maps also **provide detailed DESCRIPTIONS of use**

- ✓ better understanding of the *overall use*
- ✓ use complete with the different process categories (PROCs)
 - use can include one or multiple PROCs

Improved use maps **further REFINE EXPOSURE DATA**

- ✓ OCs/RMMs are given per PROC
- ✓ Exposure data covered in *specific templates* according to the contributing activity type:
 - worker (SWED)
 - consumer (SCED)
 - environment (SPERC)

Improved Use Map

- High level descriptions of Exposure Scenarios (simplified overview of uses and conditions)
- Use identification plus detailed description of USES
- Link to the exposure assessment inputs (references)
 - ✓ details of OCs, RMMs are described in the related input-templates (SWEDs, SCEDs, SPERCs)

Improved Use Map – simplification		
USE Descriptions	EXPOSURE INPUTS	
	Human Health	Environment
Joint sealants	Workers SWED code xxx	SPERC code xxx
Joint sealants	Consumers SCED code xxx	SPERC code xxx

FEICA Use Map example

Improved Use Map provides an **overview of sectors' use scenarios** arranged by life cycle stage

Use identification and general description				Link activities to exposure assessment inputs				Optional information	
Use code	Life Cycle Stage	Use name	Further description of use	Contributing activity (CA) type	CA name	CA Descriptor	Exposure assessment input code for this CA	Typical application examples	Typical adhesive technology
FEICA_IS_001	Use at industrial sites	Automated industrial application of adhesives by roller or brushing application, indoor	<p>In the first step the containers are opened and put under the feeding pump. Empty containers are closed and either recycled or handled as waste according to local waste regulations. The contact time is short and exposure may occur only occasionally. The containers are either located on a dedicated place inside the ventilated cabin or outside in a ventilated place for fast and easy exchange.</p> <p>Surface coating with adhesives in industrial environment is operated in a closed ventilated cabin with exhaust ventilation. This includes also the necessary flash-off time of the coated parts before bonding. The feeding of the adhesive runs automatically out of the drums or large containers in a closed system. The application is done with automated machines like roller coater, pouring or automatic scraper. The workers' exposure is only occasionally and below 1 hour, during the changing of drums or containers.</p>	worker	Changing of containers, drums or buckets for industrial application equipment	PROC 8b	FEICA SWED IS_8b_i-a	Lamination processes with roller coater; Bead extrusion with automatic systems	Solvent and water based adhesives
					Use of adhesives by roller and brushing application with machine equipment indoor,	PROC 10	FEICA SWED IS_10_i-c		
				environment	Industrial use of solvents in water-borne adhesives / sealants	ERC 4 for volatile substances	FEICA SPERC 4.1c		
					Industrial use of solvents in adhesives/sealants		FEICA SPERC 4.2b		
					Industrial use of substances other than solvents in adhesives/sealants	ERC 5 for non-volatile substances	FEICA SPERC 5.1a		
					Industrial use of substances other than solvents in water borne adhesives/sealants		FEICA SPERC 5.1c		



FEICA use map package: main features

Relation SWEDs – Use Map

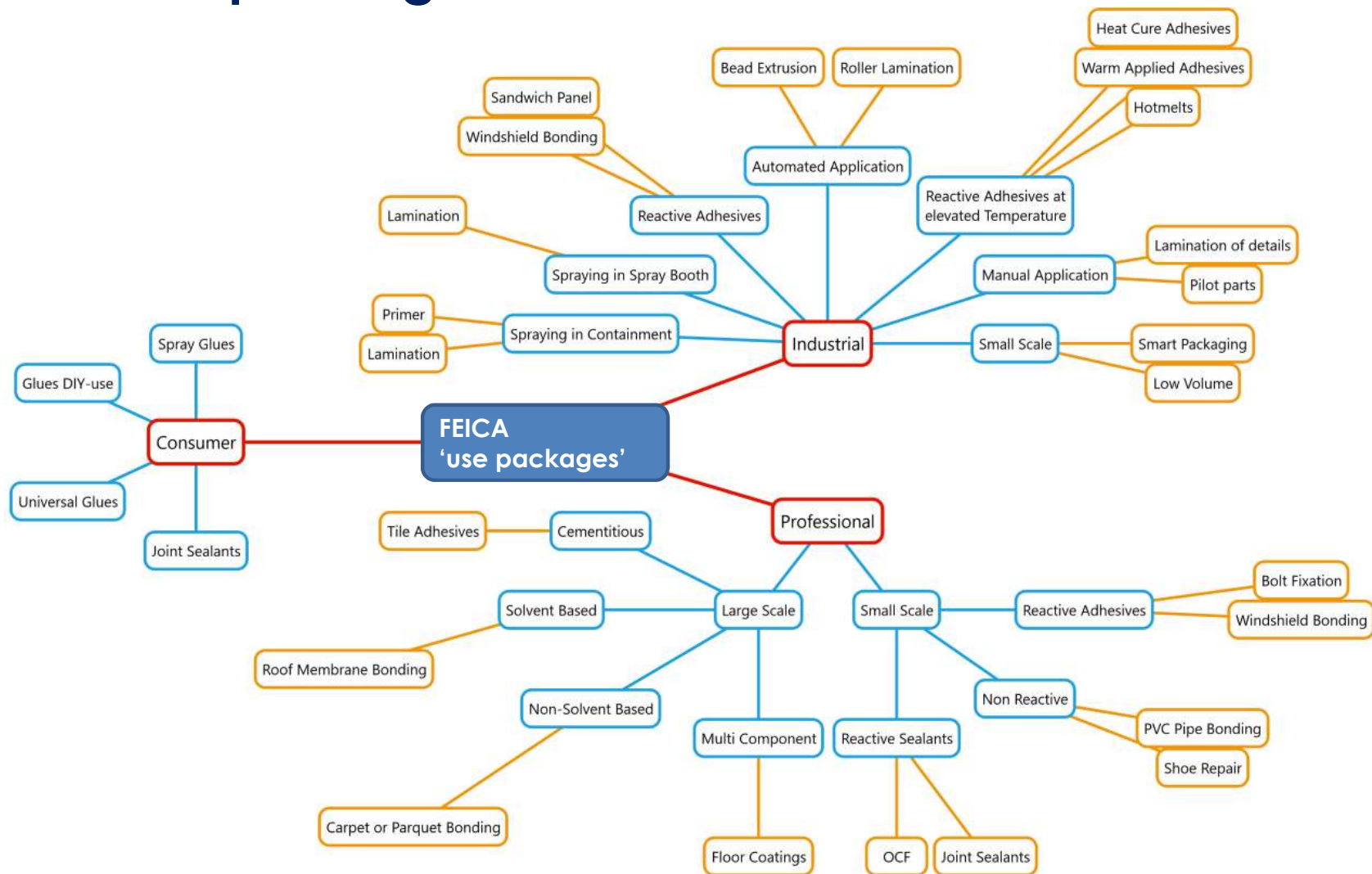
- FEICA developed **one-to-multiple SWEDs per use**
 - for different activities (e.g. mixing and application) separate SWEDs and related SUMIs available
 - initially done per use, but approach changed with the development of the use map template
- FEICA **use map covers the overall use** (combination of the CAs is included)

Example: *Automated industrial application of adhesives by roller or brushing application (indoor)*

➤ **one USE** (FEICA-IS-001) and **two SWEDs** for the Human Health CAs (PROC 8b, 10)

Use	CA type	CA name	CA descriptor	Expos. assessment input code for this CA
FEICA-IS-001	worker	Changing of containers, drums or buckets for industrial application equipment	PROC 8b	FEICA SWED IS_8b_i-a
	worker	Use of adhesives by roller and brushing application with machine equipment, indoor	PROC 10	FEICA SWED IS_10_i-c

FEICA use packages: overview



Main experiences during development

- **Technical work** requires practical knowledge and broad expertise from member companies
- **Availability** of experienced resources competed with other relevant legislations/deadlines to follow (e.g. CLP)
- Voluntary activity without a clear '**success**' path (i.e. uptake by registrants)
- Comprehensive **coordination** needed at different levels:
 - 'internal work' to ensure representation
 - discussions with the other use map developers (DUCC) to ensure harmonisation
 - both coordinated in tandem with the CSR/ES roadmap discussions
- Several **changes** in the approach during development



Messages for new developers

- Development work for concept and format is now finalized
 - ✓ **Harmonised templates are available** for use
- Populating the templates will be easier and will require
 - ✓ **less time and effort** (examples and guidelines available)
- Expertise and broad representation is still required

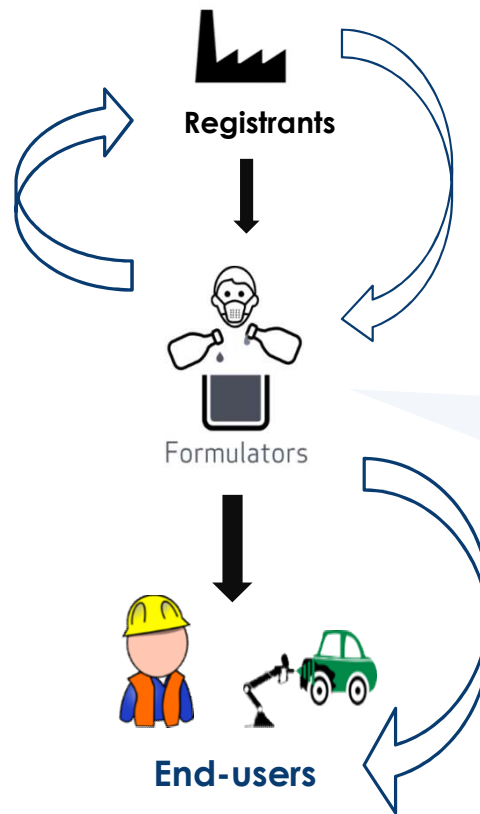


Improved supply chain communication

1. Harmonised templates to provide info on USE CONDITIONS

Use Map packages

Use Case	Use Case Name	Use Case Description	Use Case Category	Use Case Status	Use Case Priority	Use Case Owner	Use Case Contact	Use Case Start Date	Use Case End Date	Use Case Progress	Use Case Comments
SWED	SCED	SpERC									



Realistic !

Safety Data Sheet + Exposure Scenarios **SWED 1***

↕

2. Easy to cross-check

🔍 📄 use covered

SUMI 1*

3. Harmonised Template to provide SAFETY ADVICE



Benefits of improved use maps

- Provide **consistent and realistic data**
 - ✓ less individual communication with suppliers needed
 - ✓ easy compliance-check for formulators
- **Facilitates the communication** and understanding of uses between M/I and DUs
- **Integrate all 'exposure elements'** (SpERCs, SCEDs, SWEDs) and provide 'realistic' RMMs/OCs
- **Harmonise** the 'exposure scenarios information'
- (Will) facilitate the **electronic transfer** of data, reducing manual work and minimizing errors



Use 'packages': Where to find them?

-  **website:** <https://echa.europa.eu/csr-es-roadmap/use-maps/use-maps-library>

Use maps

Concept Templates and submission **Use maps library**

This library provides the available use maps and exposure assessment input (sector-specific worker exposure descriptions (SWEDs), specific environmental release categories (SPERCs) and specific consumer exposure determinants (SCEDs)) files submitted by sector organisations.

These use maps have been prepared by sector organisations representing downstream users as part of the CSR/ES Roadmap initiative to improve the quality of the information in the REACH chemical safety report.

This information on use and exposure is being made available to support registrants in preparing their chemical safety assessments (CSAs), by providing realistic information on use and conditions of use agreed at sector level. Registrants are encouraged to be aware of the availability of use maps for the sectors they supply and use this information to prepare their CSAs.

The table below gives an overview of the sectors that have submitted information in the library.

To support registrants in selecting relevant use maps an indication of the type of substances and of the type of products covered by each sector is provided.

Clicking on a sector opens a new page where further information can be found and files can be downloaded. As a first step, registrants are invited to open the use map (if available) and check in the 'other documents' section whether the sector has published some specific guidance for its use map.

Sectors can request for their information to be updated. The content and the date of the latest updates are displayed in each sector section. Details on what has been updated are described in the history table at the beginning of each file.

This library is filled in with information submitted by the sectors. During the interim period until the library is filled the overview table of the sector association activities published by CEFIC can help to find out the availability of previous use maps information (table last updated: January 2016). You can find the link to this table in the related links box.

**> FEICA
Adhesive and sealant industry**

Related links

- > Downstream users
- > CSR/ES roadmap
- > How to improve your dossier
- > Overview table of associations activities (January 2016)
- > Joint statement of Cefic, DUCC and ECHA on use maps

Disclaimer

The information has been compiled by industry sector organisations. The fact that this information is accessible via this ECHA webpage should not be taken as an endorsement of any kind by ECHA. If you access another site through one of these links, you are subject to the conditions of use of that site. ECHA accepts no liability on the content of information contained therein.

For further information on the use of third party links and of third party material, see ECHA's Legal Notice

- Sectors association's websites

Featured topics



SAFE USE OF MIXTURES (REACH)

Updated 17 October 2016

New FEICA Use Maps

<http://www.feica.eu/our-priorities/key-projects/reach.aspx>



Next steps for FEICA use packages

SPERCs:

- update based on the latest developments: new factsheets and background document
- update CHESAR files for new version

SCEDs:

- integrate consumer uses in the Use Map
- create CHESAR files

SWEDs and Use Map:

- Work on development of ESCom phrases and 'ES' short titles
- Further work for implementation in registrants' dossiers

SUMIs:

- Finalise and publish
- Translations

Thank You

Questions?



Back-up slides



Abbreviations

M/I: Manufacturer/Importer

DU: Downstream User

DUCC: Downstream Users of Chemicals Co-ordination Group

CSR/ES: Chemical Safety Report/Exposure Scenario

OCs: Operational Conditions

RMMs: Risk Management Measures

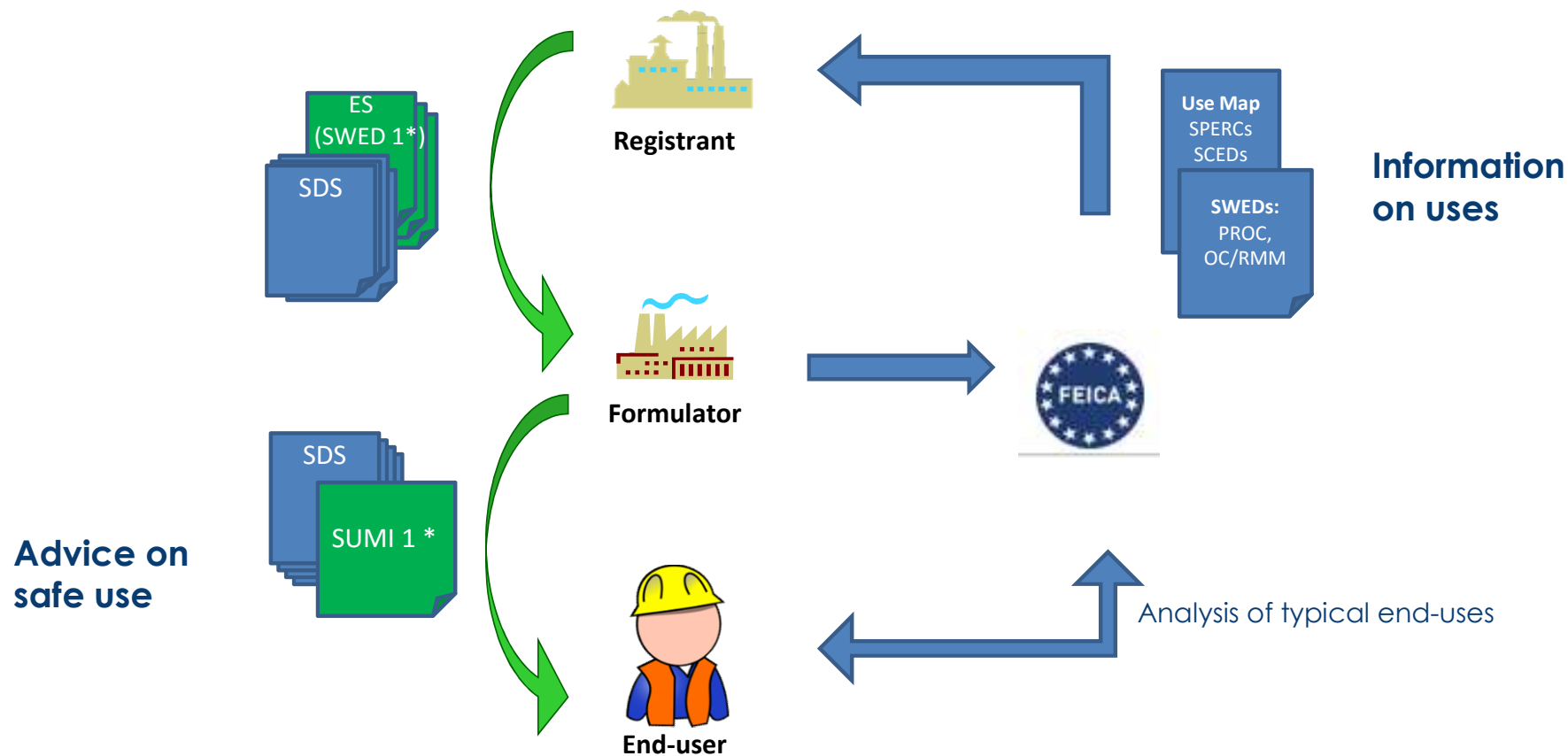
SCEDs: (sector) Specific Consumers Exposure Determinants

SpERCs: (sector) Specific Environmental Release Categories

SWEDs: Sector-specific Worker Exposure Descriptions

SUMIs: Safe Use of Mixtures Information

Improving communication on safe use of mixtures



Improved Use Map (package)

- Format: 4 harmonised templates

Use Map: USE DESCRIPTION

Use maps template - Last updated: February 2016

Use identification and general description											Link activities to exposure assessment inputs				Additional information (optional)			
Use code	Link to entry in previous use maps	Life Cycle Stage code	Life Cycle Stage code	Use name	ESCom standard phrase code(s) for use name	Further description of use	Sectors of use (SU)	Product categories (PC)	Article categories (AC)	ES short title for communication	This use leads to subsequent service life (Y/N)	Reference to subsequent service life use and relevant substances (if Y in previous column)	Contributing activity (CA) type	CA name	ESCom standard phrase code(s) for CA name	CA descriptor	Exposure assessment type code for this CA	Generic composition by technical functions; maximum concentration per technical function; tonnage information; other
sector_M_001_v1		Manufacture	M									Workers						
												Workers						
												Environment						

Link to Exposure Inputs: USE CONDITIONS

SPERC Template (Environment)

FS Section ^a	Expected types of information ^a	Explanation of contents ^a	CSR ^b	eSDS ^b
Title of SPERC ^a	Title of SPERC^a	Indicates the contributing activity / applicability domain of the SPERC ^a	Y ^c	Y ^c
SPERC code ^a	SPERC Code^a	This field may include sub-SPERC codes ^a	Y ^c	Y ^c
Scope ^a	Substance types / functions / properties included or excluded: ^a	"	Y ^c	N ^c
	Specification of product types covered, if relevant and not already contained in the title: ^a	"	Y ^c	N ^c
	Description of activities/processes: ^a	Describes processes and application technologies of the substances/products ^a	Y ^c	N ^c
	Inclusion / No inclusion in matrix: ^a	Discriminates substances that will be physically and/or chemically bound into or onto a matrix after during use ^a	Y ^c	N ^c
	Process Steps leading to emissions^a	"	"	"

Workers

Row No.	Field name	Explanations/Help text	Field content	SWED 1 Information for communication
SWED TEMPLATE				
SWED Template v1: February 2016				
1	SWED title*	Section 1 provides information on the scope of the SWED	Free text	Free text
1.1	SWED title*	Title for the SWED indicating activities/products addressed	Free text	Free text
1.2	SWED code*	Alphabetical code assigned to the SWED. This is the same as column 3 in Use Map template. Format is <sector>_<SWED>_<CS or PC>_<prior release>_<alternatives using harmonised abbreviations>	Free text	Free text
1.3	Short description of process/activity covered*	Explanation of the activities covered by the SWED (supplements the SWED title)	Free text	Free text/Standard phrase
1.4.1	Short description of the applicability domain (in terms of substance properties)	When relevant and when known, identify any boundaries with respect to substance properties (e.g. hazard characteristics, volatility band, OEL bands). The intention is to help registrants identify the appropriate SWEDs for their substance.	Free text	Free text
1.4.2	Short description of factors during use that may influence selection of working tool	When relevant and when known, identify any considerations during use that may influence exposure estimation (e.g. generation of aerosols). The intention is to help registrants identify the appropriate estimation method for their substance, and the method code to be recommended here. It generally provide contextual information and details here and at relevant points in this form to help the registrant choose the appropriate model parameters.	Free text	Free text
1.5	Relevant SLM(s) for end-user communication	One SLM reference if there is an available SLM for communication to end-users, corresponding to the activity(ies) and sets of conditions of use described in the SWED.	SLM reference(s)	SLM reference(s)
	Relevant contribution	Describe the CA covered by this SWED in the two rows below. Insert extra rows rows for any additional CA included in the SWED. and		

SCED Template (Consumers)

Exposure Determinants or Descriptors ^a	Value ^a and [ESCom phrase Code] ^a
SCED characteristics^a	"
Name of the SCEDs^a	Title from each association ^a
PC/AC descriptor^a	PC/AC number ^a
SCED code^a	<sector><SCED><PC/AC Code><number><letter><version> ^a
Code of other related SCED^a	n.a./<sector><SCED><PC/AC Code><number><letter><version> ^a
Author^a	Association name ^a
Source of SCED^a	Association website where the SCED can be found ^a
Physical form of the products^a	Choose an item: ^a
User characteristics^a	"
Adult/child assumed^a	Product used by adult (defaults based upon adult exposure factors) ^a

