

**Identified Industrial Generic Exposure Scenarios (GESs) of Acetophenone (ACP)**

GES No.	Subsector	Main SU	Description	PROC	ERC	Acetophenone (ACP)
EC No.						202-708-7
CAS No.						98-86-2
1	Manufacture, Processing and Distribution of substances and mixtures	All Industrial Uses (SU3)	Manufacture, Processing (see examples below <sup>1</sup> ), Formulation and Distribution of the substance or mixtures. Includes recycling/ recovery, material transfers, storage, maintenance and loading (including marine vessel/barge, road/rail car and bulk container), sampling and associated laboratory activities	PROC1, PROC2, PROC3, PROC4, PROC5, PROC6, PROC8a, PROC8b, PROC9, PROC10, PROC14, PROC15	ERC1, ERC2, ERC4, ERC6a  ERCs are to be checked with the ECT tool	x
6	Polymer manufacturing	All Industrial Uses (SU3)	Manufacturing of formulated polymers including material transfers, additives handling (e.g. pigments, stabilisers, fillers, plasticisers, etc.), moulding, curing and forming activities, material re-works, storage and associated maintenance.	PROC1, PROC2, PROC3, PROC4, PROC5, PROC6, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15	ERC6d  ERCs are to be checked with the ECT tool	x
7	Polymer processing	All Industrial Uses (SU3)	Processing of formulated polymers including material transfers, additives handling (e.g. pigments, stabilisers, fillers, plasticisers, etc.), moulding, curing and forming activities, material re-works, storage and associated maintenance.	PROC1, PROC2, PROC3, PROC4, PROC5, PROC6, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15	ERC6d  ERCs are to be checked with the ECT tool	x
9	Use in Cleaning Agents	All Industrial Uses (SU3)	Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. Exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand), related equipment cleaning and maintenance.	PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC19	ERC4  ERCs are to be checked with the ECT tool	ERC2

<sup>1</sup> Examples for processing: use as intermediate,  
use as monomer etc.  
use as solvent,  
use for the manufacturing of resins

<sup>2</sup> Polymer Examples: FRP, UV, VE

Please note also: PC's and AC's are only for consumer.  
For checking ERC's please use the respective environmental calculation tool (ECT) ECT Acetone or ECT Phenol or ECT Cumene or ECT AMS or ECT ACP

Identified Industrial PROCs

PROC No.	Acetophenone (ACP)
EC No.	202-708-7
CAS No.	98-86-2
PROC1	x
PROC2	x
PROC3	x
PROC4	x
PROC5	x
PROC6	x
PROC7	x
PROC8a	x
PROC8b	x
PROC9	x
PROC10 (2 uses)	x
PROC13	x
PROC14	x
PROC15	x
PROC19	x
<b>Sum</b>	<b>15</b>

Generic Exposure Scenario:				
Substance specific information		Reference Values		
Substance	Acetophenone	DNEL worker - inhalation (long term)	7	ppm
CASnr	98-86-2	DNEL worker - inhalation (short term)		ppm
Substance volatility:	0.45 hPA	DNEL worker - dermal (long term)	9	mg/kg/day
TRA volatility range	low			
physical property	liquid			
Section 1	Exposure Scenario Title			
Exposure Scenario	Main sector of Use: SU3 = All Industrial Uses			
Processes, tasks, activities covered	All Industrial Processes relevant for Acetophenone and Acetophenone containing products.			
Life Cycle Stage / Sector of Use	SU3 = All Industrial Uses			
Applicable Use Descriptors (PROC or PC)	PROC1, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15, PROC19			
Applicable Use Descriptors (ERC or SpERC)	ERCs and local conditions are to be checked with the Excel tool ECT Acetophenone			
Default Operational Conditions				
Product characteristics				
Acute Hazard	R phrases: 22-Harmful if swallowed, 36-Irritating to eyes			
General measures	<p style="color: red;">Do not ingest. If swallowed then seek immediate medical assistance. [E14]</p> <p style="color: red;">Use suitable eye protection [PPE26]</p>			
concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently) [G13].			
physical form of product	Liquid, vapour pressure 0.5 - 10 kPa [OC4].			
frequency and duration of use	Covers daily exposures up to 8 hours (unless stated differently) [G2]			
other Operational Conditions of use	Assumes a good basic standard of occupational hygiene is implemented [G1]. ;			

<b>Section 2</b>	<b>Operational conditions and risk management measures</b>
<b>Section 2.1</b>	<b>Control of environmental exposure</b>
Product characteristics	substance is a unique structure, ketone, biodegradable
Amounts used	Annual site tonnage (tonnes/year): please use the Excel-Tool "ECT Acetophenone" to calculate your maximum tonnage/year
Frequency and duration of use	Emission Days (days/year): 360d/y
Other Operational Conditions of use affecting environmental exposure	Indoor/Outdoor use
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Common practices vary across sites thus conservative process release estimates used. Typical technical measures are closed systems or scrubbers or charcoal adsorbers. Typical onsite offgas treatment technology provides removal efficiency of 90 %
Organisation measures to prevent/limit release from site	Common practices vary across sites thus conservative process release estimates used. Please use the Excel-Tool "ECT Acetophenone" to check your conditions.
Conditions and measures related to municipal sewage treatment plant	Please use the Excel-Tool "ECT Acetophenone" to check your conditions.
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable regulations
Conditions and measures related to external recovery of waste	External treatment and disposal of waste should comply with applicable regulations
Other environmental control measures additional to above	
<b>Section 2.2</b>	<b>Control of worker exposure</b>
	see chapter RMMs
<b>Section 3</b>	<b>Exposure Estimation</b>
<b>3.1. Health</b>	<a href="#">GES Worker Chemical Safety Assessment (CSA) Template</a>
	<a href="http://cefic.org/templates/shwPublications.asp?HID=750">http://cefic.org/templates/shwPublications.asp?HID=750</a>
<b>3.2. Environment</b>	<a href="#">ECT Acetophenone</a>
	<a href="http://www.reachcentrum.eu/EN/consortium-management/consortia-under-reach/phenol-derivatives-reach-consortium.aspx">http://www.reachcentrum.eu/EN/consortium-management/consortia-under-reach/phenol-derivatives-reach-consortium.aspx</a>
<b>Section 4</b>	<b>Guidance to check compliance with the Exposure Scenario</b>
<b>4.1. Health</b>	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.</i>
<b>4.2. Environment</b>	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.</i>

Generic Exposure Scenario: <b>Industrial Processes relevant for Acetophenone and Acetophenone containing products</b>					Risk Management Measures (RMMs)	
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	advised under REACh	
1	PROC 1 - Use in closed process, no likelihood of exposure	Industrial - SU3	General exposures (closed systems) [CS15].	(closed systems) [CS107].; Process sampling [CS2]. ; ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Sample via a closed loop or other system to avoid exposure [E8].
2	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Industrial - SU3	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]; with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	Sample via a closed loop or other system to avoid exposure [E8].Ensure material transfers are under containment or extract ventilation [E66].
3	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Industrial - SU3	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Sample via a closed loop or other system to avoid exposure [E8].Avoid carrying out operation for more than 4 hours [OC12]Wear suitable gloves tested to EN374 [PPE15].
4	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Sample via a closed loop or other system to avoid exposure [E8].Ensure material transfers are under containment or extract ventilation [E66].
5	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Sample via a closed loop or other system to avoid exposure [E8].Avoid carrying out operation for more than 1 hour [OC11]
6	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Sample via a closed loop or other system to avoid exposure [E8].; Limit the substance content in the product to 5% [OC17].Avoid carrying out activities involving exposure for more than 4 hours [28].
7	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66].
8	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Avoid carrying out activities involving exposure for more than 1 hour [27].Wear suitable gloves tested to EN374 [PPE15].
9	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 5% [OC17].Avoid carrying out activities involving exposure for more than 4 hours [28].Wear suitable gloves tested to EN374 [PPE15].
10	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66].
11	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear suitable gloves tested to EN374 [PPE15].

Generic Exposure Scenario: <u>Industrial Processes relevant for Acetophenone and Acetophenone containing products</u>					Risk Management Measures (RMMs)	
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	advised under REACh	
12	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear suitable gloves tested to EN374 [PPE15].
13	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 25% [OC18].Avoid carrying out activities involving exposure for more than 1 hour [27].Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training [PPE16].
14	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66].
15	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]		occasional exposure @ temp < 125 °C = medium volatility	Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17].
16	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]		occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 25% [OC18].Avoid carrying out activities involving exposure for more than 1 hour [27].Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17].
17	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66]. Avoid carrying out activities involving exposure for more than 1 hour [27].
18	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66]. Avoid carrying out activities involving exposure for more than 1 hour [27].
19	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 1% [OC16].Avoid carrying out activities involving exposure for more than 1 hour [27].Wear suitable gloves tested to EN374 [PPE15].
20	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66].
21	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22].	occasional exposure @ temp < 125 °C = medium volatility	Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training [PPE16].
22	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22].	occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 25% [OC18].Avoid carrying out activities involving exposure for more than 1 hour [27].Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training [PPE16].

Generic Exposure Scenario: <b>Industrial Processes relevant for Acetophenone and Acetophenone containing products</b>					Risk Management Measures (RMMs)	
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	advised under REACH	
23	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66].
24	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear suitable gloves tested to EN374 [PPE15].
25	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 25% [OC18].Avoid carrying out activities involving exposure for more than 1 hour [27].Wear suitable gloves tested to EN374 [PPE15].
26	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66].
27	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	equipment prewashed/ rinsed automatically	Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear suitable gloves tested to EN374 [PPE15].
28	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	equipment prewashed/ rinsed automatically	Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear suitable gloves tested to EN374 [PPE15].
29	PROC 10 - Roller application or brushing	Industrial - SU3	Rolling, Brushing [CS51].		occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66]. Avoid carrying out activities involving exposure for more than 4 hours [28].Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training [PPE16].
30	PROC 10 - Roller application or brushing	Industrial - SU3	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 5% [OC17].Drain or remove substance from equipment prior to break-in or maintenance [E81].Avoid carrying out activities involving exposure for more than 1 hour [27].
31	PROC 10 - Roller application or brushing	Industrial - SU3	Equipment cleaning and maintenance [CS39].		equipment prewashed/ rinsed automatically	Limit the substance content in the product to 1% [OC16].Avoid carrying out activities involving exposure for more than 4 hours [28].Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training [PPE16].
32	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66].
33	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].		occasional exposure @ temp < 125 °C = medium volatility	Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training [PPE16].

Generic Exposure Scenario: <b>Industrial Processes relevant for Acetophenone and Acetophenone containing products</b>					Risk Management Measures (RMMs)	
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	advised under REACH	
34	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].		occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 5% [OC17].Avoid carrying out activities involving exposure for more than 1 hour [27].
35	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation or articles by tableting, compression, extrusion or pelletisation [CS100]	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66].
36	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation or articles by tableting, compression, extrusion or pelletisation [CS100]		occasional exposure @ temp < 125 °C = medium volatility	Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear suitable gloves tested to EN374 [PPE15].
37	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation or articles by tableting, compression, extrusion or pelletisation [CS100]		occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 25% [OC18].Avoid carrying out activities involving exposure for more than 1 hour [27].Wear suitable gloves tested to EN374 [PPE15].
38	PROC 15 - Use of laboratory reagents in small scale laboratories	Industrial - SU3	Laboratory activities [CS36].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	Ensure material transfers are under containment or extract ventilation [E66].
39	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Industrial - SU3	Hand application - fingerpaints, pastels, adhesives [CS72]		occasional exposure @ temp < 125 °C = medium volatility	Limit the substance content in the product to 25% [OC18].Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17].

Generic Exposure Scenario: Industrial Processes relevant for Acetophenone and Acetophenone containing products					Inhalation Exposure								
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Exposure - (ppm) - no modifiers	TRA LEV : efficiency (%)	Dilution ventilation effectiveness (%)	TRA concentration factor	TRA duration factor	TRA RPE factor	Extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (inhalation)	Predicted Exposure - (ppm) - modified
1	PROC 1 - Use in closed process, no likelihood of exposure	Industrial - SU3	General exposures (closed systems) [CS15].	(closed systems) [CS107].; Process sampling [CS2]. ; ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.010						occasional exposure @ temp < 125 °C = medium volatility	0.01
2	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Industrial - SU3	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]; with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	10.00	90.00					occasional exposure @ temp < 125 °C = medium volatility	1
3	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Industrial - SU3	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	10.00			1-4 hours			occasional exposure @ temp < 125 °C = medium volatility	6
4	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	25.00	90.000					occasional exposure @ temp < 125 °C = medium volatility	2.5
5	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	25.00			15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	5
6	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	25.00		1-5%	1-4 hours			occasional exposure @ temp < 125 °C = medium volatility	3
7	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	20.00	90.00					occasional exposure @ temp < 125 °C = medium volatility	2
8	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	20.00			15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	4
9	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	20.00		1-5%	1-4 hours			occasional exposure @ temp < 125 °C = medium volatility	2.4
10	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	50.00	90.00					occasional exposure @ temp < 125 °C = medium volatility	5
11	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	50.00			1-4 hours	half mask		occasional exposure @ temp < 125 °C = medium volatility	3
12	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	50.00			<15 min			occasional exposure @ temp < 125 °C = medium volatility	5
13	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	50.00		5-25%	15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	6

Generic Exposure Scenario: Industrial Processes relevant for Acetophenone and Acetophenone containing products					Inhalation Exposure								
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Exposure - (ppm) - no modifiers	TRA LEV : efficiency (%)	Dilution ventilation effectiveness (%)	TRA concentration factor	TRA duration factor	TRA RPE factor	Extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (inhalation)	Predicted Exposure - (ppm) - modified
14	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	50.00	90.00					occasional exposure @ temp < 125 °C = medium volatility	5
15	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]		occasional exposure @ temp < 125 °C = medium volatility	50.00			<15 min			occasional exposure @ temp < 125 °C = medium volatility	5
16	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]		occasional exposure @ temp < 125 °C = medium volatility	50.00		5-25%	15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	6
17	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	250.00	90.00		1-4 hours	half mask		occasional exposure @ temp < 125 °C = medium volatility	1.5
18	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	250.00	90.00		15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	5
19	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	250.00		<1%	15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	5
20	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	50.00	90.00					occasional exposure @ temp < 125 °C = medium volatility	5
21	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22].	occasional exposure @ temp < 125 °C = medium volatility	50.00			<15 min			occasional exposure @ temp < 125 °C = medium volatility	5
22	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22].	occasional exposure @ temp < 125 °C = medium volatility	50.00		5-25%	15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	6
23	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	50.00	97.00					occasional exposure @ temp < 125 °C = medium volatility	1.5
24	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	50.00			<15 min			occasional exposure @ temp < 125 °C = medium volatility	5
25	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	50.00		5-25%	15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	6
26	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	50.00	90.00					occasional exposure @ temp < 125 °C = medium volatility	5

Generic Exposure Scenario: Industrial Processes relevant for Acetophenone and Acetophenone containing products					Inhalation Exposure								
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Exposure - (ppm) - no modifiers	TRA LEV : efficiency (%)	Dilution ventilation effectiveness (%)	TRA concentration factor	TRA duration factor	TRA RPE factor	Extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (inhalation)	Predicted Exposure - (ppm) - modified
27	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	equipment prewashed/ rinsed automatically	50.00			<15 min			occasional exposure @ temp < 125 °C = medium volatility	5
28	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	equipment prewashed/ rinsed automatically	50.00		5-25%	15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	6
29	PROC 10 - Roller application or brushing	Industrial - SU3	Rolling, Brushing [CS51].		occasional exposure @ temp < 125 °C = medium volatility	50.00	90.00		1-4 hours			equipment prewashed/ rinsed automatically	3
30	PROC 10 - Roller application or brushing	Industrial - SU3	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	50.00		1-5%	15 min-1 hour			equipment prewashed/ rinsed automatically	2
31	PROC 10 - Roller application or brushing	Industrial - SU3	Equipment cleaning and maintenance [CS39].		equipment prewashed/ rinsed automatically	50.00		<1%	1-4 hours			equipment prewashed/ rinsed automatically	3
32	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	50.00	90.00					occasional exposure @ temp < 125 °C = medium volatility	5
33	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].		occasional exposure @ temp < 125 °C = medium volatility	50.00			<15 min			occasional exposure @ temp < 125 °C = medium volatility	5
34	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].		occasional exposure @ temp < 125 °C = medium volatility	50.00		1-5%	15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	2
35	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation of articles by tableting, compression, extrusion or pelletisation [CS100]	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	50.00	90.00					occasional exposure @ temp < 125 °C = medium volatility	5
36	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation of articles by tableting, compression, extrusion or pelletisation [CS100]		occasional exposure @ temp < 125 °C = medium volatility	50.00			<15 min			occasional exposure @ temp < 125 °C = medium volatility	5
37	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation of articles by tableting, compression, extrusion or pelletisation [CS100]		occasional exposure @ temp < 125 °C = medium volatility	50.00		5-25%	15 min-1 hour			occasional exposure @ temp < 125 °C = medium volatility	6
38	PROC 15 - Use of laboratory reagents in small scale laboratories	Industrial - SU3	Laboratory activities [CS36].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	10.00	90.000					occasional exposure @ temp < 125 °C = medium volatility	1
39	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Industrial - SU3	Hand application - fingerpaints, pastels, adhesives [CS72]		occasional exposure @ temp < 125 °C = medium volatility	50.00		5-25%	<15 min			occasional exposure @ temp < 125 °C = medium volatility	3

Generic Exposure Scenario: Industrial Processes relevant for Acetophenone and Acetophenone containing products						Dermal Exposure						
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs		TRA Predicted Dermal exposure (mg/kg/d) - no modifiers	TRA Dermal exposure LEV reduction factor	TRA concentration factor	PPE factor	extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (dermal)	Predicted Dermal Exposure (mg/kg/d) - modified
1	PROC 1 - Use in closed process, no likelihood of exposure	Industrial - SU3	General exposures (closed systems) [CS15].	(closed systems) [CS107].; Process sampling [CS2]. ; ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.340						0.34
2	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Industrial - SU3	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; ; elevated temperature [111]; with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	1.37	0.10					0.14
3	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Industrial - SU3	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	1.37			gloves			0.27
4	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.34	0.100					0.03
5	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.34						0.34
6	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.34						0.34
7	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	6.86	0.10					0.69
8	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	6.86			gloves			1.37
9	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	6.86			gloves			1.37
10	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	13.71	0.01					0.07
11	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	13.71			gloves-basic training			1.37
12	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	13.71			gloves-basic training			1.37

Generic Exposure Scenario: Industrial Processes relevant for Acetophenone and Acetophenone containing products					Dermal Exposure						
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Dermal exposure (mg/kg/d) - no modifiers	TRA Dermal exposure LEV reduction factor	TRA concentration factor	PPE factor	extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (dermal)	Predicted Dermal Exposure (mg/kg/d) - modified
13	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	13.71		5-25%	gloves-basic training		0.82
14	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	27.43	0.05				1.37
15	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]		occasional exposure @ temp < 125 °C = medium volatility	27.43			gloves-specific training		1.37
16	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]		occasional exposure @ temp < 125 °C = medium volatility	27.43		5-25%	gloves-specific training		0.82
17	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	13.71	0.05				0.69
18	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	13.71	0.05				0.69
19	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	13.71		<1%	gloves		0.27
20	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	13.71	0.01				0.14
21	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22].	occasional exposure @ temp < 125 °C = medium volatility	13.71			gloves-basic training		1.37
22	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22].	occasional exposure @ temp < 125 °C = medium volatility	13.71		5-25%	gloves-basic training		0.82
23	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	6.86	0.10				0.69
24	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	6.86			gloves		1.37

Generic Exposure Scenario: Industrial Processes relevant for Acetophenone and Acetophenone containing products					Dermal Exposure						
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Dermal exposure (mg/kg/d) - no modifiers	TRA Dermal exposure LEV reduction factor	TRA concentration factor	PPE factor	extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (dermal)	Predicted Dermal Exposure (mg/kg/d) - modified
25	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	6.86		5-25%	gloves		0.82
26	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	6.86	0.10				0.69
27	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	equipment prewashed/ rinsed automatically	6.86			gloves		1.37
28	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	equipment prewashed/ rinsed automatically	6.86		5-25%	gloves		0.82
29	PROC 10 - Roller application or brushing	Industrial - SU3	Rolling, Brushing [CS51].		occasional exposure @ temp < 125 °C = medium volatility	27.43			gloves-basic training		2.74
30	PROC 10 - Roller application or brushing	Industrial - SU3	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	27.43		1-5%			5.49
31	PROC 10 - Roller application or brushing	Industrial - SU3	Equipment cleaning and maintenance [CS39].		equipment prewashed/ rinsed automatically	27.43		<1%			2.74
32	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	13.71	0.05				0.69
33	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].		occasional exposure @ temp < 125 °C = medium volatility	13.71			gloves-basic training		1.37
34	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].		occasional exposure @ temp < 125 °C = medium volatility	13.71		1-5%			2.74
35	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation or articles by tableting, compression, extrusion or pelletisation [CS100]	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	3.43	0.10				0.34
36	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation or articles by tableting, compression, extrusion or pelletisation [CS100]		occasional exposure @ temp < 125 °C = medium volatility	3.43			gloves		0.69

Generic Exposure Scenario: Industrial Processes relevant for Acetophenone and Acetophenone containing products					Dermal Exposure						
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Dermal exposure (mg/kg/d) - no modifiers	TRA Dermal exposure LEV reduction factor	TRA concentration factor	PPE factor	extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (dermal)	Predicted Dermal Exposure (mg/kg/d) - modified
37	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation or articles by tableting, compression, extrusion or pelletisation [CS100]		occasional exposure @ temp < 125 °C = medium volatility	3.43		5-25%	gloves		0.41
38	PROC 15 - Use of laboratory reagents in small scale laboratories	Industrial - SU3	Laboratory activities [CS36].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	0.34	0.100				0.03
39	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Industrial - SU3	Hand application - fingerpaints, pastels, adhesives [CS72]		occasional exposure @ temp < 125 °C = medium volatility	141.43		5-25%	gloves-specific training		4.24

Generic Exposure Scenario: <b>Industrial Processes relevant for Acetophenone and Acetophenone containing products</b>					Risk Characterization			
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	RCR (inhalation)	RCR (dermal)	RCR (all routes)	
1	PROC 1 - Use in closed process, no likelihood of exposure	Industrial - SU3	General exposures (closed systems) [CS15].	(closed systems) [CS107].; Process sampling [CS2]. ; ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.002	0.04	0.04
2	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Industrial - SU3	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]; with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	0.15	0.01	0.17
3	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Industrial - SU3	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.91	0.03	0.94
4	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.38	0.004	0.38
5	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.04	0.79
6	PROC 3 - Use in closed batch process (synthesis or formulation)	Industrial - SU3	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.45	0.04	0.49
7	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.30	0.07	0.38
8	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.61	0.15	0.75
9	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Industrial - SU3	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.36	0.15	0.51
10	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.01	0.76
11	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	0.45	0.15	0.60

Generic Exposure Scenario: <b>Industrial Processes relevant for Acetophenone and Acetophenone containing products</b>					Risk Characterization			
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	RCR (inhalation)	RCR (dermal)	RCR (all routes)	
12	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.15	0.90
13	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Industrial - SU3	Mixing operations (open systems) [CS30].	Batch process [CS55]. ; Process sampling [CS2]. ;	occasional exposure @ temp < 125 °C = medium volatility	0.91	0.09	1.00
14	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.15	0.90
15	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]		occasional exposure @ temp < 125 °C = medium volatility	0.76	0.15	0.90
16	PROC 6 -Calendering operations	Industrial - SU3	Calendering (including Banburys) [CS64]		occasional exposure @ temp < 125 °C = medium volatility	0.91	0.09	1.00
17	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	0.23	0.07	0.30
18	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.07	0.83
19	PROC 7 -Industrial spraying	Industrial - SU3	Spraying/fogging by machine application [CS25].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.03	0.79
20	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.01	0.77
21	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22].	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.15	0.90
22	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22].	occasional exposure @ temp < 125 °C = medium volatility	0.91	0.09	1.00

Generic Exposure Scenario: <b>Industrial Processes relevant for Acetophenone and Acetophenone containing products</b>					Risk Characterization			
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	RCR (inhalation)	RCR (dermal)	RCR (all routes)	
23	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	0.23	0.07	0.30
24	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.15	0.90
25	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Industrial - SU3	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	occasional exposure @ temp < 125 °C = medium volatility	0.91	0.09	1.00
26	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.07	0.83
27	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	equipment prewashed/ rinsed automatically	0.76	0.15	0.90
28	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Industrial - SU3	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; elevated temperature [111]	equipment prewashed/ rinsed automatically	0.91	0.09	1.00
29	PROC 10 - Roller application or brushing	Industrial - SU3	Rolling, Brushing [CS51].		occasional exposure @ temp < 125 °C = medium volatility	0.45	0.29	0.75
30	PROC 10 - Roller application or brushing	Industrial - SU3	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	0.30	0.58	0.89
31	PROC 10 - Roller application or brushing	Industrial - SU3	Equipment cleaning and maintenance [CS39].		equipment prewashed/ rinsed automatically	0.45	0.29	0.75
32	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.07	0.83
33	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].		occasional exposure @ temp < 125 °C = medium volatility	0.76	0.15	0.90

Generic Exposure Scenario: <b>Industrial Processes relevant for Acetophenone and Acetophenone containing products</b>					Risk Characterization			
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	RCR (inhalation)	RCR (dermal)	RCR (all routes)	
34	PROC 13 -Treatment of articles by dipping and pouring	Industrial - SU3	Dipping, immersion and pouring [CS4].		occasional exposure @ temp < 125 °C = medium volatility	0.30	0.29	0.59
35	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation or articles by tableting, compression, extrusion or pelletisation [CS100]	with local exhaust ventilation [109]	occasional exposure @ temp < 125 °C = medium volatility	0.76	0.04	0.79
36	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation or articles by tableting, compression, extrusion or pelletisation [CS100]		occasional exposure @ temp < 125 °C = medium volatility	0.76	0.07	0.83
37	PROC 14 - Production of preparations or articles by tableting, compression, extrusion, pelletisation	Industrial - SU3	Production or preparation or articles by tableting, compression, extrusion or pelletisation [CS100]		occasional exposure @ temp < 125 °C = medium volatility	0.91	0.04	0.95
38	PROC 15 - Use of laboratory reagents in small scale laboratories	Industrial - SU3	Laboratory activities [CS36].	with local exhaust ventilation [CS109]	occasional exposure @ temp < 125 °C = medium volatility	0.15	0.004	0.16
39	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Industrial - SU3	Hand application - fingerpaints, pastels, adhesives [CS72]		occasional exposure @ temp < 125 °C = medium volatility	0.45	0.45	0.91

**Identified Professional Generic Exposure Scenarios (GESs) of Acetophenone (ACP)**

GES No.	Subsector	Main SU	Description	PROC	ERC	Acetophenone (ACP)
						202-708-7
						98-86-2
1	Use in laboratories	All Professional Uses (SU22)	Use of small quantities within laboratory settings, including material transfers and equipment cleaning	PROC10, PROC15	ERC8a ERCs are to be checked with the ECT tool	x
7	Use in Cleaning Agents	All Professional Uses (SU22)	Covers the use as a component of cleaning products including pouring/unloading from drums or containers; and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping automated and by hand).	PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC19	ERC8a ERCs are to be checked with the ECT tool	x

Please note also: PC's and AC's are only for consumer.  
 For checking ERC's please use the respective environmental calculation tool (ECT) ECT Acetone or ECT Phenol or ECT Cumene or ECT AMS or ECT ACP

Identified Professional PROCs

PROC No.	Acetophenone (ACP)
EC No.	202-708-7
CAS No.	98-86-2
PROC1	x
PROC2	x
PROC3	x
PROC4	x
PROC5	x
PROC8a	x
PROC8b	x
PROC9	x
PROC10 (2 uses)	x
PROC11	x
PROC13	x
PROC15	x
PROC19	x
<b>Sum</b>	<b>13</b>

Generic Exposure Scenario:				
Substance specific information		Reference Values		
Substance	Acetophenone	DNEL worker - inhalation (long term)	7	ppm
CASnr	98-86-2	DNEL worker - inhalation (short term)		ppm
Substance volatility:	0.45 hPA	DNEL worker - dermal (long term)	9	mg/kg/day
TRA volatility range	medium			
physical property	liquid			
Section 1	Exposure Scenario Title			
Exposure Scenario	Main sector of Use: SU22 = All Professional Uses			
Processes, tasks, activities covered	All Professional Processes relevant for Acetophenone and Acetophenone containing products.			
Life Cycle Stage / Sector of Use	SU22 = All Professional Uses			
Applicable Use Descriptors (PROC or PC)	PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15, PROC19			
Applicable Use Descriptors (ERC or SpERC)	ERCs and local conditions are to be checked with the Excel tool ECT Phenol			
Default Operational Conditions				
Product characteristics				
Acute Hazard	R phrases: 22-Harmful if swallowed, 36-Irritating to eyes			
General measures	<p style="color: red;">Do not ingest. If swallowed then seek immediate medical assistance. [E14]</p> <p style="color: red;">Use suitable eye protection [PPE26]</p>			
concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently) [G13].			
physical form of product	Liquid, vapour pressure 0.5 - 10 kPa [OC4].			
frequency and duration of use	Covers daily exposures up to 8 hours (unless stated differently) [G2]			
other Operational Conditions of use	Assumes a good basic standard of occupational hygiene is implemented [G1]. ;			

<b>Section 2</b>	<b>Operational conditions and risk management measures</b>
<b>Section 2.1</b>	<b>Control of environmental exposure</b>
Product characteristics	substance is a unique structure, ketone, biodegradable
Amounts used	Annual site tonnage (tonnes/year): please use the Excel-Tool "ECT Acetophenone" to calculate your maximum tonnage/year
Frequency and duration of use	Emission Days (days/year): 360d/y
Other Operational Conditions of use affecting environmental exposure	Indoor/Outdoor use
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Common practices vary across sites thus conservative process release estimates used. Typical technical measures are closed systems or scrubbers or charcoal adsorbers. Typical onsite offgas treatment technology provides removal efficiency of 90 %
Organisation measures to prevent/limit release from site	Common practices vary across sites thus conservative process release estimates used. Please use the Excel-Tool "ECT Acetophenone" to check your conditions.
Conditions and measures related to municipal sewage treatment plant	Please use the Excel-Tool "ECT Acetophenone" to check your conditions.
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable regulations
Conditions and measures related to external recovery of waste	External treatment and disposal of waste should comply with applicable regulations
Other environmental control measures additional to above	
<b>Section 2.2</b>	<b>Control of worker exposure</b>
	see chapter RMMs
<b>Section 3</b>	<b>Exposure Estimation</b>
<b>3.1. Health</b>	<a href="#">GES Worker Chemical Safety Assessment (CSA) Template</a>
	<a href="http://cefic.org/templates/shwPublications.asp?HID=750">http://cefic.org/templates/shwPublications.asp?HID=750</a>
<b>3.2. Environment</b>	<a href="#">ECT Acetophenone</a>
	<a href="http://www.reachcentrum.eu/EN/consortium-management/consortia-under-reach/phenol-derivatives-reach-consortium.aspx">http://www.reachcentrum.eu/EN/consortium-management/consortia-under-reach/phenol-derivatives-reach-consortium.aspx</a>
<b>Section 4</b>	<b>Guidance to check compliance with the Exposure Scenario</b>
<b>4.1. Health</b>	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.</i>
<b>4.2. Environment</b>	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.</i>

Generic Exposure Scenario: <u>Professional Processes relevant for Acetophenone and Acetophenone containing products</u>					Risk Management Measures (RMMs)
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	advised under REACh
1	PROC 1 - Use in closed process, no likelihood of exposure	Professional - SU22	General exposures (closed systems) [CS15].	(closed systems) [CS107]; Process sampling [CS2]. ; ; elevated temperature [111]	Sample via a closed loop or other system to avoid exposure [E8].
2	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Professional - SU22	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]; with local exhaust ventilation [109]	Sample via a closed loop or other system to avoid exposure [E8]. Ensure material transfers are under containment or extract ventilation [E66].
3	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Professional - SU22	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]	Sample via a closed loop or other system to avoid exposure [E8]. Avoid carrying out activities involving exposure for more than 1 hour [27].
4	PROC 3 - Use in closed batch process (synthesis or formulation)	Professional - SU22	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	Sample via a closed loop or other system to avoid exposure [E8]. Ensure material transfers are under containment or extract ventilation [E66].
5	PROC 3 - Use in closed batch process (synthesis or formulation)	Professional - SU22	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	Sample via a closed loop or other system to avoid exposure [E8]. Avoid carrying out activities involving exposure for more than 1 hour [27].
6	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Professional - SU22	Process sampling [CS2]. ; (open systems) [CS108]	with local exhaust ventilation [109]; elevated temperature [111]	Ensure material transfers are under containment or extract ventilation [E66]. Avoid carrying out activities involving exposure for more than 4 hours [28].
7	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Professional - SU22	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	Limit the substance content in the product to 5% [OC17]. Avoid carrying out activities involving exposure for more than 1 hour [27].
8	PROC 5 - Mixing or blending in batch processes (multistage and/or significant contact)	Professional - SU22	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	Ensure material transfers are under containment or extract ventilation [E66]. Avoid carrying out activities involving exposure for more than 1 hour [27].
9	PROC 5 - Mixing or blending in batch processes (multistage and/or significant contact)	Professional - SU22	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [CS111]	Limit the substance content in the product to 5% [OC17]. Avoid carrying out activities involving exposure for more than 1 hour [27].
10	PROC 8a - Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Professional - SU22	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	Ensure material transfers are under containment or extract ventilation [E66]. Avoid carrying out activities involving exposure for more than 1 hour [27].
11	PROC 8b - Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Professional - SU22	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	

Generic Exposure Scenario: <b>Professional Processes relevant for Acetophenone and Acetophenone containing products</b>					Risk Management Measures (RMMs)
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	advised under REACH
12	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Professional - SU22	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	Avoid carrying out activities involving exposure for more than 1 hour [27].
13	PROC 10 - Roller application or brushing	Professional - SU22	Rolling, Brushing [CS51].	Or: Equipment cleaning and maintenance [CS39].	Limit the substance content in the product to 5% [OC17].Avoid carrying out activities involving exposure for more than 1 hour [27].Wear suitable gloves tested to EN374 [PPE15].
14	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility Limit the substance content in the product to 5% [OC17].Drain or remove substance from equipment prior to break-in or maintenance [E81].Avoid carrying out activities involving exposure for more than 1 hour [27].Wear suitable gloves tested to EN374 [PPE15].
15	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility Limit the substance content in the product to 25% [OC18].Drain or remove substance from equipment prior to break-in or maintenance [E81].Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear <u>chemically resistant gloves (tested to EN374) in combination with intensive</u>
16	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility Limit the substance content in the product to 25% [OC18].Drain or remove substance from equipment prior to break-in or maintenance [E81].Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear <u>chemically resistant gloves (tested to EN374) in combination with intensive</u>
17	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].	with local exhaust ventilation [CS109]	Limit the substance content in the product to 25% [OC18].Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear suitable gloves tested to EN374 [PPE15].
18	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].		Limit the substance content in the product to 1% [OC16].Ensure operation is undertaken outdoors [E69]. Avoid carrying out activities involving exposure for more than 15 minutes [OC26].Wear suitable gloves tested to EN374 [PPE15].
19	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].		Limit the substance content in the product to 25% [OC18].Ensure operation is undertaken outdoors [E69]. Avoid carrying out activities involving exposure for more than 1 hour [27].Wear chemically resistant gloves (tested to EN374) in <u>combination with specific activity training [PPE17]. ;</u>
20	PROC 13 -Treatment of articles by dipping and pouring	Professional - SU22	Dipping, immersion and pouring [CS4].	with local exhaust ventilation [CS109]	Limit the substance content in the product to 25% [OC18].Ensure material transfers are under containment or extract ventilation [E66]. Avoid carrying out activities involving exposure for more than 1 hour [27].
21	PROC 15 - Use of laboratory reagents in small scale laboratories	Professional - SU22	Laboratory activities [CS36].	with local exhaust ventilation [CS109]	Ensure material transfers are under containment or extract ventilation [E66].
22	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Professional - SU22	Hand application - fingerpaints, pastels, adhesives [CS72]		Limit the substance content in the product to 5% [OC17].Avoid carrying out activities involving exposure for more than 1 hour [27].Wear suitable gloves tested to EN374 [PPE15].

Generic Exposure Scenario: <u>Professional Processes relevant for Acetophenone and Acetophenone containing products</u>					Risk Management Measures (RMMs)
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	advised under REACH
23	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Professional - SU22	Hand application - fingerpaints, pastels, adhesives [CS72]		Limit the substance content in the product to 1% [OC16]. Avoid carrying out activities involving exposure for more than 4 hours [28]. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17].

Generic Exposure Scenario: Professional Processes relevant for Acetophenone and Acetophenone containing products					Inhalation Exposure								
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Exposure - (ppm) - no modifiers	TRA LEV : efficiency (%)	Dilution ventilation effectiveness (%)	TRA concentration factor	TRA duration factor	TRA RPE factor	Extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (inhalation)	Predicted Exposure - (ppm) - modified
1	PROC 1 - Use in closed process, no likelihood of exposure	Professional - SU22	General exposures (closed systems) [CS15].	(closed systems) [CS107].; Process sampling [CS2]. ; ; elevated temperature [111]	0.010								0.01
2	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Professional - SU22	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]; with local exhaust ventilation [109]	20.00	80.00							4
3	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Professional - SU22	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]	20.00				15 min-1 hour				4
4	PROC 3 - Use in closed batch process (synthesis or formulation)	Professional - SU22	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	25.00	80.000							5
5	PROC 3 - Use in closed batch process (synthesis or formulation)	Professional - SU22	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	25.00				15 min-1 hour				5
6	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Professional - SU22	Process sampling [CS2]. ; (open systems) [CS108]	with local exhaust ventilation [109]; elevated temperature [111]	50.00	80.00			1-4 hours				6
7	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Professional - SU22	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	50.00			1-5%	15 min-1 hour				2
8	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Professional - SU22	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	100.00	80.00			15 min-1 hour				4
9	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Professional - SU22	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [CS111]	100.00			1-5%	15 min-1 hour				4
10	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Professional - SU22	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	100.00	80.00			15 min-1 hour				4
11	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Professional - SU22	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	50.00	90.00							5
12	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Professional - SU22	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	100.00	80.00			15 min-1 hour				4
13	PROC 10 - Roller application or brushing	Professional - SU22	Rolling, Brushing [CS51].	Or: Equipment cleaning and maintenance [CS39].	100.00			1-5%	15 min-1 hour				4

Generic Exposure Scenario: Professional Processes relevant for Acetophenone and Acetophenone containing products					Inhalation Exposure								
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Exposure - (ppm) - no modifiers	TRA LEV : efficiency (%)	Dilution ventilation effectiveness (%)	TRA concentration factor	TRA duration factor	TRA RPE factor	Extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (inhalation)	Predicted Exposure - (ppm) - modified
14	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	100.00			1-5%	15 min-1 hour		occasional exposure @ temp < 125 °C = medium volatility	4
15	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	100.00			5-25%	1-4 hours	half mask	occasional exposure @ temp < 125 °C = medium volatility	3.6
16	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	100.00			5-25%	<15 min		occasional exposure @ temp < 125 °C = medium volatility	6
17	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].	with local exhaust ventilation [CS109]		500.00	80.00		5-25%	<15 min			6
18	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].			500.00			<1%	<15 min			5
19	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].			500.00		30.00	5-25%	15 min-1 hour	half mask		4.2
20	PROC 13 -Treatment of articles by dipping and pouring	Professional - SU22	Dipping, immersion and pouring [CS4].	with local exhaust ventilation [CS109]		100.00	80.00		5-25%	15 min-1 hour			2.4
21	PROC 15 - Use of laboratory reagents in small scale laboratories	Professional - SU22	Laboratory activities [CS36].	with local exhaust ventilation [CS109]		10.00	80.000						2
22	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Professional - SU22	Hand application - fingerpaints, pastels, adhesives [CS72]			100.00			1-5%	15 min-1 hour			4
23	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Professional - SU22	Hand application - fingerpaints, pastels, adhesives [CS72]			100.00			<1%	1-4 hours			6

Generic Exposure Scenario: Professional Processes relevant for Acetophenone and Acetophenone containing products					Dermal Exposure						
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Dermal exposure (mg/kg/d) - no modifiers	TRA Dermal exposure LEV reduction factor	TRA concentration factor	PPE factor	extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (dermal)	Predicted Dermal Exposure (mg/kg/d) - modified
1	PROC 1 - Use in closed process, no likelihood of exposure	Professional - SU22	General exposures (closed systems) [CS15].	(closed systems) [CS107].; Process sampling [CS2]. ; ; elevated temperature [111]	0.340						0.34
2	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Professional - SU22	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]; with local exhaust ventilation [109]	1.37	0.10					0.14
3	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Professional - SU22	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]	1.37						1.37
4	PROC 3 - Use in closed batch process (synthesis or formulation)	Professional - SU22	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	0.34	0.100					0.03
5	PROC 3 - Use in closed batch process (synthesis or formulation)	Professional - SU22	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	0.34						0.34
6	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Professional - SU22	Process sampling [CS2]. ; (open systems) [CS108]	with local exhaust ventilation [109]; elevated temperature [111]	6.86	0.10					0.69
7	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Professional - SU22	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	6.86		1-5%				1.37
8	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Professional - SU22	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	13.71	0.01					0.07
9	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Professional - SU22	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [CS111]	13.71		1-5%				2.74
10	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Professional - SU22	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	13.71	0.01					0.14
11	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Professional - SU22	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	6.86	0.10					0.69
12	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Professional - SU22	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	6.86	0.10					0.69
13	PROC 10 - Roller application or brushing	Professional - SU22	Rolling, Brushing [CS51].	Or: Equipment cleaning and maintenance [CS39].	27.43		1-5%	gloves			1.10

Generic Exposure Scenario: Professional Processes relevant for Acetophenone and Acetophenone containing products					Dermal Exposure						
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	TRA Predicted Dermal exposure (mg/kg/d) - no modifiers	TRA Dermal exposure LEV reduction factor	TRA concentration factor	PPE factor	extra exposure modifier: [optional]	Free text - comment to clarify additional modifier (dermal)	Predicted Dermal Exposure (mg/kg/d) - modified
14	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	27.43		1-5%	gloves		1.10
15	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	27.43			gloves-basic training		2.74
16	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	27.43			gloves-intensive controls		0.55
17	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].	with local exhaust ventilation [CS109]		107.14	0.02	5-25%	gloves		0.26
18	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].			107.14		<1%	gloves		2.14
19	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].			107.14		5-25%	gloves-specific training		3.21
20	PROC 13 -Treatment of articles by dipping and pouring	Professional - SU22	Dipping, immersion and pouring [CS4].	with local exhaust ventilation [CS109]		13.71	0.05	5-25%			0.41
21	PROC 15 - Use of laboratory reagents in small scale laboratories	Professional - SU22	Laboratory activities [CS36].	with local exhaust ventilation [CS109]		0.34	0.100				0.03
22	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Professional - SU22	Hand application - fingerpaints, pastels, adhesives [CS72]			141.43		1-5%	gloves-basic training		2.83
23	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Professional - SU22	Hand application - fingerpaints, pastels, adhesives [CS72]			141.43		<1%	gloves-specific training		0.71

Generic Exposure Scenario: Professional Processes relevant for Acetophenone and Acetophenone containing products					Risk Characterization		
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	RCR (inhalation)	RCR (dermal)	RCR (all routes)
1	PROC 1 - Use in closed process, no likelihood of exposure	Professional - SU22	General exposures (closed systems) [CS15].	(closed systems) [CS107].; Process sampling [CS2]. ; ; elevated temperature [111]	0.002	0.04	0.04
2	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Professional - SU22	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]; with local exhaust ventilation [109]	0.61	0.01	0.62
3	PROC 2 - Use in closed, continuous process with occasional controlled exposure	Professional - SU22	General exposures (closed systems) [CS15].	Continuous process [CS54]. ; Process sampling [CS2]. ; elevated temperature [111]	0.61	0.15	0.75
4	PROC 3 - Use in closed batch process (synthesis or formulation)	Professional - SU22	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	0.76	0.004	0.76
5	PROC 3 - Use in closed batch process (synthesis or formulation)	Professional - SU22	General exposures (closed systems) [CS15].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [111]	0.76	0.04	0.79
6	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Professional - SU22	Process sampling [CS2]. ; (open systems) [CS108]	with local exhaust ventilation [109]; elevated temperature [111]	0.91	0.07	0.98
7	PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises	Professional - SU22	Process sampling [CS2]. ; (open systems) [CS108]	elevated temperature [111]	0.30	0.15	0.45
8	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Professional - SU22	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; with local exhaust ventilation [109]; elevated temperature [111]	0.61	0.01	0.61
9	PROC 5 -Mixing or blending in batch processes (multistage and/or significant contact)	Professional - SU22	Mixing operations (open systems) [CS30].	Batch process [CS55]. Process sampling [CS2]. ; elevated temperature [CS111]	0.61	0.29	0.90
10	PROC 8a -Transfer of chemicals from/to vessels/ large containers at non dedicated facilities	Professional - SU22	Bulk transfers [CS14].	Non-dedicated facility [CS82]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	0.61	0.01	0.62
11	PROC 8b -Transfer of chemicals from/to vessels/ large containers at dedicated facilities	Professional - SU22	Bulk transfers [CS14].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];	0.76	0.07	0.83

Generic Exposure Scenario: Professional Processes relevant for Acetophenone and Acetophenone containing products					Risk Characterization			
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	RCR (inhalation)	RCR (dermal)	RCR (all routes)	
12	PROC 9 -Transfer of chemicals into small containers (dedicated filling line)	Professional - SU22	Small package filling [CS7].	Dedicated facility [CS81]; Transfer from/pouring from containers [CS22]. ; with local exhaust ventilation [109];		0.61	0.07	0.68
13	PROC 10 - Roller application or brushing	Professional - SU22	Rolling, Brushing [CS51].	Or: Equipment cleaning and maintenance [CS39].		0.61	0.12	0.72
14	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	0.61	0.12	0.72
15	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	0.55	0.29	0.84
16	PROC 10 - Roller application or brushing	Professional - SU22	Equipment cleaning and maintenance [CS39].		occasional exposure @ temp < 125 °C = medium volatility	0.91	0.06	0.97
17	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].	with local exhaust ventilation [CS109]		0.91	0.03	0.94
18	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].			0.76	0.23	0.99
19	PROC 11 - Non industrial spraying	Professional - SU22	Spraying/fogging by manual application [CS24].			0.64	0.34	0.98
20	PROC 13 -Treatment of articles by dipping and pouring	Professional - SU22	Dipping, immersion and pouring [CS4].	with local exhaust ventilation [CS109]		0.36	0.04	0.41
21	PROC 15 - Use of laboratory reagents in small scale laboratories	Professional - SU22	Laboratory activities [CS36].	with local exhaust ventilation [CS109]		0.30	0.004	0.31
22	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Professional - SU22	Hand application - fingerpaints, pastels, adhesives [CS72]			0.61	0.30	0.91

Generic Exposure Scenario: <u>Professional Processes relevant for Acetophenone and Acetophenone containing products</u>					Risk Characterization		
No	Use Descriptor (PROCs)	SU 3 / SU 22	Contributing Scenario	Operational Conditions & typical RMMs	RCR (inhalation)	RCR (dermal)	RCR (all routes)
23	PROC 19 - Hand-mixing with intimate contact (only PPE available)	Professional - SU22	Hand application - fingerpaints, pastels, adhesives [CS72]		0.91	0.08	0.98

## Identified Consumer Generic Exposure Scenarios (GESs) of Acetophenone

GES No.	Subsector	Main SU	Description	PC	Acetophenone (ACP)
EC No.					202-708-7
CAS No.					98-86-2
2	Use in Cleaning Agents	All Consumer Uses (SU21)	Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products.	PC3, PC4, PC9, PC24, PC32, PC 35, PC38	x + PC28, PC35 + ERC11b

### Identified Consumer - PCs & Market Sector - PCs

Acetophenone		
PC	Cleanings	PC Type
PC3	x	Consumer
PC4	x	Market Sector
PC9	x	Consumer
PC24	x	Consumer
PC28	x	Market Sector
PC32	x	Market Sector
PC35	x	Consumer
PC38	x	Market Sector

Section 1		Exposure Scenario Title
Title		<b>GES USES</b>
Sector of Use (SU code)		21
Use Descriptor (PC codes)		PC LISTS
Processes, tasks, activities covered		DESCRIPTIONS
Environmental Release Category		
Specific Environmental Release Category		
Section 2		Operational conditions and risk management measures
<i>Field for additional statements to explain scenario if required - pending better understanding from ECHA</i>		
Section 2.1		Control of consumer exposure
<b>Product characteristics</b>		
Physical form of product		liquid
Vapour pressure		45
Concentration of substance in product		Unless otherwise stated, cover concentrations up to 100% [ConsOC1]
<b>Amounts used</b>		Unless otherwise stated, covers use amounts up to 37500g [ConsOC2]; covers skin contact area up to 6600cm <sup>2</sup> [ConsOC5]
<b>Frequency and duration of use/exposure</b>		Unless otherwise stated, covers use frequency up to 4 times per day [ConsOC4]; covers exposure up to 8 hours per event [ConsOC14]
<b>Other Operational Conditions affecting exposure</b>		Unless otherwise stated assumes use at ambient temperatures [ConsOC15]; assumes use in a 20 m <sup>3</sup> room [ConsOC11]; assumes use with typical ventilation [ConsOC8].
Section 2.1.1		Product categories
PC3:Air care products--Air care, instant action (aerosol sprays)	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 4 times/day of use[ConsOC4]; for each use event, covers use amounts up to 0.1g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m <sup>3</sup> [ConsOC11]; for each use event, covers exposure up to 0.25hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC3:Air care products--Air care, continuous action (solid and liquid)	OC	Unless otherwise stated, covers concentrations up to 10% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 35.70 cm <sup>2</sup> [ConsOC5]; for each use event, covers use amounts up to 0.48g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m <sup>3</sup> [ConsOC11]; for each use event, covers exposure up to 8.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC4_n:Anti-freeze and de-icing products--Washing car window	OC	Unless otherwise stated, covers concentrations up to 1% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 0.5g [ConsOC2]; Covers use in a one car garage (34m <sup>3</sup> ) under typical ventilation [ConsOC10]; covers use in room size of 34m <sup>3</sup> [ConsOC11]; for each use event, covers exposure up to 0.02hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated

Section 2.1		Control of consumer exposure
PC4_n:Anti-freeze and de-icing products-- Pouring into radiator	OC	Unless otherwise stated, covers concentrations up to 10% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 2000g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];
	RMM	Avoid using at a product concentration greater than 1.2% [ConsRMM1];
PC4_n:Anti-freeze and de-icing products--Lock de-icer	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 214.40 cm2 [ConsOC5]; for each use event, covers use amounts up to 4g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.25hr/event[ConsOC14];
	RMM	Avoid using at a product concentration greater than 2.5% [ConsRMM1];
PC9a:Coatings and paints, fillers putties, thinners-- Waterborne latex wall paint	OC	Unless otherwise stated, covers concentrations up to 1.5% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC9a:Coatings and paints, fillers putties, thinners-- Solvent rich, high solid, water borne paint	OC	Unless otherwise stated, covers concentrations up to 27.5% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC9a:Coatings and paints, fillers putties, thinners-- Aerosol spray can	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.33hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC9a:Coatings and paints, fillers putties, thinners-- Removers (paint-, glue-, wall paper-, sealant- remover)	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 3 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 491g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC9b:Fillers, putties, plasters, modeling clay-- Fillers and putty	OC	Unless otherwise stated, covers concentrations up to 2% [ConsOC1]; covers use up to 12 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 35.73 cm2 [ConsOC5]; for each use event, covers use amounts up to 85g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 4.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC9b:Fillers, putties, plasters, modeling clay-- Plasters and floor equalizers	OC	Unless otherwise stated, covers concentrations up to 2% [ConsOC1]; covers use up to 12 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 13800g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated

<b>Section 2.1</b>		<b>Control of consumer exposure</b>
PC9b: Fillers, putties, plasters, modeling clay-- Modelling clay	OC	Unless otherwise stated, covers concentrations up to 1% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 254.40 cm <sup>2</sup> [ConsOC5]; for each use event, assumes swallowed amount of 1g [ConsOC13];
	RMM	No specific RMMs identified beyond those OCs stated
PC9c: Finger paints --Finger paints	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 254.40 cm <sup>2</sup> [ConsOC5]; for each use event, assumes swallowed amount of 1.35g [ConsOC13];
	RMM	Avoid using at a product concentration greater than 1.25% [ConsRMM1];
PC24: Lubricants, greases, and release products- Liquids	OC	Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 468.00 cm <sup>2</sup> [ConsOC5]; for each use event, covers use amounts up to 2200g [ConsOC2]; Covers use in a one car garage (34m <sup>3</sup> ) under typical ventilation [ConsOC10]; covers use in room size of 34m <sup>3</sup> [ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants, greases, and release products- Pastes	OC	Unless otherwise stated, covers concentrations up to 20% [ConsOC1]; covers use up to 10 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 468.00 cm <sup>2</sup> [ConsOC5]; for each use event, covers use amounts up to 34g [ConsOC2]; covers use in room size of m <sup>3</sup> [ConsOC11];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants, greases, and release products- Sprays	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm <sup>2</sup> [ConsOC5]; for each use event, covers use amounts up to 73g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m <sup>3</sup> [ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC35: Washing and cleaning products (including solvent based products)--Laundry and dish washing products	OC	Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm <sup>2</sup> [ConsOC5]; for each use event, covers use amounts up to 15g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m <sup>3</sup> [ConsOC11]; for each use event, covers exposure up to 0.50hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC35: Washing and cleaning products (including solvent based products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners )	OC	Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm <sup>2</sup> [ConsOC5]; for each use event, covers use amounts up to 27g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m <sup>3</sup> [ConsOC11]; for each use event, covers exposure up to 0.33hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC35: Washing and cleaning products (including solvent based products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)	OC	Unless otherwise stated, covers concentrations up to 15% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.00 cm <sup>2</sup> [ConsOC5]; for each use event, covers use amounts up to 35g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m <sup>3</sup> [ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated

<b>Section 2.1</b>		<b>Control of consumer exposure</b>
PC38_n: Welding and soldering products, flux products--NOTE, n_assessment not in TRA	OC	Unless otherwise stated, covers concentrations up to 20% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 12g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 1.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
<b>Section 3</b>		<b>Exposure Estimation ('Flexible' heading)</b>
<i>ECHA Note in draft template: Exposure estimation and risk characterisation ratios (for all routes of exposure for consumers and all compartments for environment) resulting from the conditions described under Sections 2.1 and 2.2.), and the substance properties; make reference to the exposure assessment tool applied. Note: Detail could be confusing for customers. Also may be an extensive list. Proposal to include a weblink from where these data can be retrieved (a component of GES development).</i>		
<b>3.1. Health</b>		
Health sub-headings ( <i>design as phrases</i> )		<i>Standard phrases expected. Ability to Include a web link.</i>
<b>3.2. Environment</b>		
Environment sub-headings ( <i>design as phrases</i> )		<i>Standard phrases expected. Ability to Include a web link.</i>
<b>Section 4</b>		<b>Guidance to check compliance with the Exposure Scenario ('Flexible' heading)</b>
<i>Guidance how the DU can evaluate whether he operates within the conditions set in the exposure scenario - scaling tools. Standard phrases</i>		
<b>4.1. Health</b>		
Health sub-headings ( <i>design as phrases</i> )		<i>Utilize TRA, TRA+ and/or CONSEXPO exposure model</i>
<b>4.2. Environment</b>		
Environment sub-headings ( <i>design as phrases</i> )		<i>Standard phrases</i>