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# SAFETY DATA SHEET

**Methanol** 

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

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Signal Word(s)	Danger					
	GHS02	GHS06	GHS08			
		a the second sec		>		
Hazard Pictogram(s)	$\wedge$					
Product Name	According to Regulation Methanol.	(EC) No. 1272/	2008 (CLP)			
2.2 Label elements		(EO) No. 4070				
	Acute Tox. 3 :Toxic in co Acute Tox. 3 :Toxic if inh STOT SE 1 :Causes dan	aled.				
<b>2.1 Classification of the substance or</b> Regulation (EC) No. 1272/2008 (CLP)	mixture Flam. Liq. 2 :Highly flam Acute Tox. 3 :Toxic if swa		d vapour.			
SECTION 2: HAZARDS IDEN	ITIFICATION					
For Spill, Leak, Fire, Exposure or Accident, Call CHEMTREC Day or Night	accepted)		00 5970 and +1-703-527-3887 (c	ollect calls		
National Poisons Information Service (Birmingham Centre)	+44 (0) 111	1 800 404 00	20			
1.4 Emergency telephone number	. 4.4 (0) 111					
Website	www.muntajatbv.com	<u></u>				
Telephone E-mail	+31(0)70 219 7000 REACH@muntajatbv.cor	m				
	2595 BR, La Haye Pays Bas					
Company Identification Address	MUNTAJAT B.V. Prinses Margrietplantsoe	en 78-A				
Only representative of a non-Community	manufacturer					
Telephone E-mail	(+) 974-4477 3400 info@gafac.com.ga					
	PO Box 22700, Doha, State of Qatar.					
Company Identification Address	Qatar Fuel Additives Cor Mesaieed Industrial City,					
1.3 Details of the supplier of the safety	v data sheet					
Uses Advised Against	<ul> <li>Use as a fuel in profe</li> <li>Industrial use in clear None known.</li> </ul>		3			
Identified Use(s)	<ul><li>Formulation and (re)p</li><li>Use as a fuel in indust</li></ul>	backing of subs	tances and mixtures			
1.2 Relevant identified uses of the sub			nainst			
EC No. REACH Registration No.	200-659-6 01-2119433307-44-0254					
Chemical Formula CAS No.	CH₄O 67-56-1					
	Methyl alcohol					
1.1 Product identifier Product Name Chemical Name Chemical Formula	CH₄O					

BAAC	Methanol
Hazard Statement(s)	H225: Highly flammable liquid and vapour. H301: Toxic if swallowed. H311: Toxic in contact with skin. H331: Toxic if inhaled. H370: Causes damage to organs.
Precautionary Statement(s)	<ul> <li>P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>P260: Do not breathe vapour.</li> <li>P280: Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.</li> <li>P308+P311: IF exposed or concerned: Call a POISON CENTER/doctor.</li> <li>P370+P378: In case of fire: Use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide to extinguish.</li> </ul>
2.3 Other hazards	None known.

#### 2.4 Additional Information

For full text of H/P Statements see section 16.

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS No.	EC No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Methanol	67-56-1	200-659-6 01-2119433307-44-XXXX	≥99	Flam. Liq. 2 H225 Acute Tox. 3 H301 Acute Tox. 3 H311 Acute Tox. 3 H331 STOT SE 1 H370	GHS02 GHS06 GHS08
methyl acetate	79-20-9	201-185-2 01-2119459211-47-XXXX	<0.015	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336	GHS02 GHS07
acetic acid	64-19-7	200-580-7 01-2119475328-30-XXXX	<0.005	Flam. Liq. 3 H226 Skin Corr. 1A H314	GHS02 GHS05
Acetone	67-64-1	200-662-2 01-2119471330-49-XXXX	<0.003	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336	GHS02 GHS07
Ethanol	64-17-5	200-578-6 01-2119457610-43-XXXX	<0.005	Flam. Liq. 2 H225	GHS02
butanone	78-93-3	201-159-0 01-2119457290-43-XXXX	<0.001	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336	GHS02 GHS07

#### 3.2 Mixtures

Not applicable.

SECTION 4: FIRST AID MEASURES			
4.1 Description of first aid measures			
Inhalation	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.		
Skin Contact	Take off immediately all contaminated clothing. Rinse skin with water.		
Eye Contact	Flush eyes with water for at least 15 minutes while holding eyelids open. If symptoms persist, obtain medical attention.		
Ingestion	Rinse mouth. Immediately call a POISON CENTER/doctor.		
4.2 Most important symptoms and ef	fects, both acute and delayed		
	Toxic by inhalation, in contact with skin and if swallowed. Causes damage to organs.		
4.3 Indication of any immediate medi	cal attention and special treatment needed IF exposed or concerned: Call a POISON CENTER/doctor.		
	·		
SECTION 5: FIREFIGHTING	MEASURES		

#### 5.1 Extinguishing media Suital

Suitable extinguishing media	Use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide to
	extinguish.
Unsuitable extinguishing media	Do not use water jet.

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ACCORDING TO EC-REGULA	TIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830
کیات Anno	Methanol
5.2 Special hazards arising from the	substance or mixture
	Highly flammable liquid and vapour. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide.
5.3 Advice for firefighters	
	Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Evacuate the area and keep personnel upwind. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions. Water spray should be used to cool containers.
SECTION 6: ACCIDENTAL	RELEASE MEASURES
6.1 Personal precautions, protective	equipment and emergency procedures Ensure adequate ventilation. Remove all ignition sources. Do not breathe vapour. Wear appropriate personal protective equipment, avoid direct contact. Take off immediately all contaminated clothing and wash it before reuse. Wash hands and exposed skin thoroughly after handling.
6.2 Environmental precautions	
	Do not allow to enter drains, sewers or watercourses.
6.3 Methods and material for contain	ment and cleaning up Shut off leaks if without risk. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a lidded container for disposal or recovery.
6.4 Reference to other sections	
	See Also Section 8, 13.

# **SECTION 7: HANDLING AND STORAGE**

7.1 Precautions for safe handling	
	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Use explosion- proof electrical/ventilating/lighting/equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Do not breathe vapour. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.
7.2 Conditions for safe storage, inclu	ding any incompatibilities
	Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Storage temperature	Ambient.
Storage life	Stable under normal conditions.
Incompatible materials	Strong oxidising agents.
7.3 Specific end use(s)	
	<ul> <li>Formulation and (re)packing of substances and mixtures</li> </ul>
	Line as a final in industrial actions

- Use as a fuel in industrial settings Use as a fuel in professional settings •
- Industrial use in cleaning agents •

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters8.1.1 Occupational Exposure Limits

Source

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Methanol	67-56-1	200	266	250	333	Sk
Methanol	67-56-1	200	260			IOELV, Skin
methyl acetate	79-20-9	200	616	250	770	
acetic acid	64-19-7	10	25	20	50	
acetic acid	64-19-7	10	25	20	50	IOELV
Acetone	67-64-1	500	1210	1500	3620	
Acetone	67-64-1	500	1210			IOELV
Ethanol	64-17-5	1000	1920			
outanone	78-93-3	200	600	300	899	Sk, BMGV
outanone	78-93-3	200	600	300	900	IOELV

Region

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ACCONDINC	
	Methanol
EU United Kingdom	EU Occupational Exposure Limits UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)
Remark	Notes
Sk	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.
IOELV	Indicative Occupational Exposure Limit Value
Skin	The possibility of significant uptake through the skin.

BMGV Biological monitoring guidance values are listed in Table 2.

#### 8.1.2 Biological limit value

Substances	CAS No.	Sampling	Tissues	Control	Biological	Comments
					monitoring quidance value	
					guiuance value	
butanone	78-93-3	70 µmol butan-2-one/L in urine	Post shift			

#### 8.1.3 PNECs and DNELs

DNEL / DMEL	Oral	Inhalation	Dermal	
Industry - Long Term - Local effects		130 mg/m <sup>3</sup>		
Industry - Long Term - Systemic effects		130 mg/m <sup>3</sup>	20 mg/kg bw/day	
Industry - Short term - Local effects		130 mg/m <sup>3</sup>		
Industry - Short term - Systemic effects		130 mg/m <sup>3</sup>	20 mg/kg bw/day	
Consumer - Long Term - Local effects		26 mg/m³		
Consumer - Long Term - Systemic effects	4 mg/kg bw/day	26 mg/m <sup>3</sup>	4 mg/kg bw/day	
Consumer - Short term - Local effects		26 mg/m³		
Consumer - Short term - Systemic effects	4 mg/kg bw/day	26 mg/m³	4 mg/kg bw/day	
Environment	PNEC			
Aquatic Compartment (including sediment)	Fresh water: 20.8 mg/l Intermittent release (Fresh water): 1540 mg/l			
		Sea water: 2.08 mg/l		
	Fresh water (Sediment): 77 mg/kg dw			
Sea water (Sediment): 7.7 mg/kg dw				
Terrestrial Compartment	0	Sewage Treatment Plant: 100 mg/l		
Atmospheric Compartment	Soil: 100 mg/kg dw			

#### 8.2 Exposure controls

8.2.1. Appropriate engineering controls Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Use with ventilation, local exhaust ventilation or breathing protection.

8.2.2. Personal protection equipme	int
Eye Protection	Wear protective eye glasses for protection against liquid splashes.
Skin protection	Wear suitable protective clothing and gloves. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.
Respiratory protect	tion Wear suitable respiratory protection.
Thermal hazards	Not applicable.
8.2.3. Environmental Exposure Co	ntrols Do not allow to enter drains, sewers or watercourses.

# SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic p	hysical and chemical properties
Appearance	Liquid.
	Colour : Clear, Colourl

Odour Odour threshold Liquid. Colour : Clear, Colourless. Mild, Characteristic. 100 ppm

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pH Melting point/freezing point Initial boiling point and boiling range Flash Point	5.9-6.0 -97.8°C 64.6°C 15.6°C [Open cup]
Evaporation rate	Not available.
Flammability (solid, gas) Upper/lower flammability or explosive	Not applicable. 6.7-36 Vol-%
limits	0.7-50 V01-78
Vapour pressure	12.8 kPa @ room temperature
Vapour density	1.1 (Air = 1)
Density (g/ml)	Not available.
Relative density	0.7928 @ 20°C
Solubility(ies)	Solubility (Water) : Miscible.
	Solubility (Other): Miscible with: Ethanol, Ether, Ketones, Benzene, Most organic
	solvents. Soluble in: Acetone, Chloroform.
Partition coefficient: n-octanol/water	Log Pow: -0.77
Auto-ignition temperature	464°C
Decomposition Temperature (°C)	Not available.
Viscosity	Kinematic Viscosity: 0.00737 cm <sup>2</sup> /s @ 20°C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2 Other information	

None.

#### SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	Stable under normal conditions.
10.2	Chemical Stability	Stable under normal conditions.
10.3	Possibility of hazardous reactions	No hazardous reactions known if used for its intended purpose.
10.4	Conditions to avoid	Keep away from heat, sources of ignition and direct sunlight.
10.5	Incompatible materials	Strong oxidising agents.
10.6	Hazardous decomposition produc	ts

No hazardous decomposition products known.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Acute toxicity - Ingestion	Toxic if swallowed.
	LD50 (rat): 1187 mg/kg
Acute toxicity - Skin Contact	Toxic in contact with skin.
	LD50 (rabbit): 17100 mg/kg bw
Acute toxicity - Inhalation	Toxic if inhaled.
	LC50 (rat) (6 hour(s)): 43700 mg/m <sup>3</sup>

The available experimental test data are reliable and suitable for classification purposes under Regulation (EC) No 1272/2008. Although the lethal dose of methanol is high for most experimental animals, these data are not employed for classification. The classification is only based upon the experiences in humans and classifies methanol as acutely toxic by oral, dermal and inhalative exposure and, furthermore, as capable of inducing serious irreversible effects upon single exposure by all of these routes. As a result, the substance is considered to be classified for acute toxicity category 3.

Not classified. Not classified. It is not a skin sensitiser. Not classified. There is no evidence of mutagenic potential. No evidence of carcinogenicity. No evidence of reproductive effects. None anticipated. Causes damage to organs. No data. Not classified. None anticipated.

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11.2 Other information

Not known.

# SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	
Toxicity - Aquatic invertebrates	Low toxicity to invertebrates. Acute: EC50 (Daphnia magna)(96 hour): 18260 mg/l
Toxicity - Fish	Chronic: NOEC (Daphnia magna): 208 mg/l Low toxicity to fish. Acute: LC50 (Lepomis macrochirus)(96 hour): 15400 mg/l
Toxicity - Algae	Chronic: NOEC (Pimephales promelas): 450 mg/l Low toxicity to algae. EC50 (Pseudokirchneriella subcapitata) (96 hour): 22000 mg/l
Toxicity - Sediment Compartment Toxicity - Terrestrial Compartment	Not classified. Not classified.
12.2 Persistence and degradability	Readily biodegradable. Unlikely to persist.
12.3 Bioaccumulative potential	The substance has low potential for bioaccumulation. Bioconcentration factor (BCF): <10
12.4 Mobility in soil	Miscible with water. The substance is predicted to have high mobility in soil.
12.5 Results of PBT and vPvB asses	ssment Not classified as PBT or vPvB.
12.6 Other adverse effects	Not known.
SECTION 13: DISPOSAL C	ONSIDERATIONS
13.1 Waste treatment methods	
	Dispose of this material and its container as hazardous waste. Dispose of empty containers and wastes safely. Decontaminate empty containers before recycling. Send to a licensed recycler, reclaimer or incinerator.

**13.2 Additional Information** 

Disposal should be in accordance with local, state or national legislation.

# **SECTION 14: TRANSPORT INFORMATION**

14.1 UN number UN No.	1230
<b>14.2 UN proper shipping name</b> UN proper shipping name	METHANOL
14.3 Transport hazard class(es) ADR/RID ADR/RID Class ADR Classification Code Special Provisions Limited Quantities Excepted Quantities Emergency Action Code Mixed Packing Instructions for Packages Special Packing Instructions for Packages Mixed Packing Instructions for Packages Mixed Packing Instructions for Packages Packing Instructions for Packages Package Package Package Package Package Provisions for Packages Special Provisions for Tanks Vehicle for Tank Category Tunnel Restriction Code Special Provisions for Carriage - Loading Unloading and Handling	MP19 T7 TP2 L4BH TU15 FL 2 D/E

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Special Provisions for Carriage -	S2 S19
Operation ADR HIN	336
IMDG	
IMDG Class	3
Special Provisions	279
Limited Quantities	1L
Excepted Quantities	E2
Mixed Packing Instructions for Packages Packing Instructions for Portable Tanks	P001 IBC02 T7
Special Provisions for Portable Tanks	TP2
IMDG EMS	F-E, S-D
Stowage and Handling	Category B SW2
ICAO/IĂTA	
IATA Proper Shipping Name	METHANOL
Excepted Quantities	E2
Passenger and Cargo Aircraft Limited	Y341
Quantities Packing Instructions Passenger and Cargo Aircraft Limited	1L
Quantities Max net Qty	IE
Passenger and Cargo Aircraft Packing	352
Instructions	
Passenger and Cargo Aircraft Max net	1L
Qty	
Cargo Aircraft Packing Instructions	364
Cargo Aircraft Max net Qty Special Provisions	60L A113
Emergency Response Guidebook (ERG)	
Code	UL CONTRACTOR OF CONT
Labels	
Labels	3 +6.1
	3
14.4 Packing group	
Packing group	II
14.5 Environmental hazards	
Environmental hazards	Not classified as a Marine Pollutant.
14.6 Special precautions for user	
Special precautions for user	Not known.
14.7 Transport in bulk according to A	nnex II of Marpol and the IBC Code No information available

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture European Regulations - Authorisations and/or Restrictions On Use Candidate List of Substances of Very High Concern for Not listed Authorisation REACH: ANNEX XIV list of substances subject to authorisation Not listed REACH: Annex XVII Restrictions on the manufacture, placing on Methanol (67-56-1), methyl acetate (79-20-9), Acetone (67the market and use of certain dangerous substances, mixtures 64-1), Ethanol (64-17-5), butanone (78-93-3), acetic acid (64-19-7) and articles Community Rolling Action Plan (CoRAP) Methanol (67-56-1), butanone (78-93-3) Regulation (EC) N° 850/2004 of the European Parliament and of Not listed the Council on persistent organic pollutants Regulation (EC) N° 1005/2009 on substances that deplete the Not listed ozone layer Regulation (EU) N° 649/2012 of the European Parliament and of Not listed the Council concerning the export and import of hazardous chemicals **National regulations** 

Other

Not known.

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15.2 Chemical Safety Assessment

A REACH chemical safety assessment has been carried out.

The following sections contain revi	sions or new statements:	1-16		
LEGEND				
Hazard Pictogram(s)				•
	GHS02	GHS06	GHS08	
	GHS05: GHS: Corro GHS07: GHS: Excla			
Hazard classification	Flam. Liq. 3 : Flamm Acute Tox. 3 : Acute Skin Corr. 1A : Skin Eye Irrit. 2 : Serious STOT SE 3 : Specifi	corrosion/irritation, C eye damage/irritation c target organ toxicity	3 ategory 1A	
Hazard Statement(s)	H226: Flammable lic H301: Toxic if swallo H311: Toxic in conta H314: Causes sever H319: Causes serio H331: Toxic if inhale	wed. ict with skin. e skin burns and eye us eye irritation. d. owsiness or dizziness	damage.	
Precautionary Statement(s)	sources. No smoking P233: Keep contains P240: Ground and b P241: Use explosion P242: Use non-spart P243: Take action to P260: Do not breath P264: Wash hands a P270: Do not eat, dr P271: Use only outd P280: Wear protectiv P301+P310: IF SWA P302+P352: IF ON 3 P303+P361+P353: I clothing. Rinse skin P304+P340: IF INHA breathing. P308+P311: IF expo P312: Call a POISO P330: Rinse mouth. P361+P364: Take of reuse. P370+P378: In case chemical or carbon of P403+P235: Store in P405: Store locked of	g. er tightly closed. ond container and re- p-proof electrical/venti- king tools. o prevent static discha e vapour. and exposed skin thou ink or smoke when us oors or in a well-vent ve gloves/protective of VLLOWED: Immediat SKIN: Wash with plei F ON SKIN (or hair): with water. ALED: Remove person used or concerned: CN N CENTER/doctor if y fi immediately all cont of fire: Use water sp floxide to extinguish. a well-ventilated pla up.	lating/lighting/equipment. arges. roughly after handling. sing this product. lated area. lothing/eye protection/face pr rely call a POISON CENTER/ ty of water. Take off immediately all cont on to fresh air and keep comfor call a POISON CENTER/doctor you feel unwell. caminated clothing and wash in the pray or fog, alcohol resistant for	otection. doctor. aminated ortable for or. it before pam, dry
Acronyms	Goods by Road CAS : Chemical Abs	tracts Service C) No 1272/2008 on o ures	ne International Carriage of D classification, labelling and pa	-
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ſ	ZALE: BAFAG	Methanol
		EC : European Community IATA : International Air Transport Association IBC : Internediate Bulk Container ICAO : International Civil Aviation Organization IMDG : International Maritime Dangerous Goods LTEL : Long term exposure limit PBT : Persistent, Bioaccumulative and Toxic PNEC : Predicted No Effect Concentration REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals RID : Regulations concerning the International Carriage of Dangerous Goods by Rail STEL : Short term exposure limit STOT : Specific Target Organ Toxicity UN : United Nations vPvB : very Persistent and very Bioaccumulative
	Key literature references and sources for data used to compile the SDS	Regulation (EC) No. 1272/2008 (CLP)
	Disclaimers	Information contained in this publication or as otherwise supplied to Users is believed to be accurate and in given in good faith, but it is for the Users to active themselves.

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	1.1 Formulation of preparations (ERC 2)	
	1.2 Use in closed process, no likelihood of exposure (PROC 1)	
	1.3 Use in closed, continuous process with occasional controlled exposure (PROC 2)	
	1.4 Use in closed batch process (synthesis or formulation) (PROC 3)	
	1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC 4)	
	1.6 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) (PROC5)	
	1.7 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)	
	1.8 Transfer of chemicals from / to vessel / large containers at dedicated facilities (PROC 8b)	
	1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9)	
	1.10 Use of laboratory reagents in small scale laboratories (PROC 15)	
	1.11 Exposure estimation	
	1.12 Guidance to DU to evaluate whether he works inside the boundaries set by the ES	
2.	Exposure Scenario 2: Use as a fuel in industrial settings	
	1.1 Industrial use of substances in closed systems (ERC 7)	
	1.2 Use in closed process, no likelihood of exposure (PROC 1)	
	1.3 Use in closed, continuous process with occasional controlled exposure (PROC 2)	
	1.4 Use in closed batch process (synthesis or formulation) (PROC 3)	
	1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)	
	1.6 Transfer of chemicals from / to vessel / large containers at dedicated facilities (PROC 8b)	
	1.7 Using material as fuel sources, limited exposure to unburned product to be expected (PROC 16)	
	1.8 Hand-mixing with intimate contact and only PPE available (PROC 19)	
	1.9 Exposure estimation	
	1.10 Guidance to DU to evaluate whether he works inside the boundaries set by the ES	
3.	Exposure Scenario 3: Use as a fuel in professional setting	
	1.1 Industrial use of substances in closed systems (ERC 8b)	
	1.2 Use in closed process, no likelihood of exposure (PROC 1)	
	1.3 Use in closed, continuous process with occasional controlled exposure (PROC 2)	
	1.4 Use in closed batch process (synthesis or formulation) (PROC 3)	
	1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)	
	1.6 Transfer of chemicals from / to vessel / large containers at dedicated facilities (PROC 8b)	
	1.7 Using material as fuel sources, limited exposure to unburned product to be expected (PROC 16)	
	1.8 Hand-mixing with intimate contact and only PPE available (PROC 19)	
	1.9 Exposure estimation	
	1.10 Guidance to DU to evaluate whether he works inside the boundaries set by the ES	
4.	Exposure Scenario 4: Industrial use in cleaning agent	30
	1.1 Industrial use of processing aids (ERC 8b)	
	1.2 Use in closed process, no likelihood of exposure (PROC 1)	
	1.3 Use in closed, continuous process with occasional controlled exposure (PROC 2)	
	1.4 Use in closed batch process (synthesis or formulation) (PROC 3)	
	1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)	
	1.6 Industrial spraying (PROC 7)	
	1.7 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC 8a)	
	1.8 Transfer of chemicals from / to vessel / large containers at dedicated facilities (PROC 8b)	
	1.9 Roller application or brushing (PROC 10)	
	1.10 Treatment of articles by dipping and pouring (PROC 13)	
	1.11 Exposure estimation	
	1.12 Guidance to DU to evaluate whether he works inside the boundaries set by the ES	36

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1. Exposure Scenario 1: Form SECTION 1:	ulation and (re)packing of substance and mixtures Title of exposure scenario		
	Formulation and (re)packing of substance and mixtures		
Contributing scenario controllin	Contributing scenario controlling environmental exposure		
Formulation of preparations		ERC2	
Contributing scenario controllin	ig worker exposure		
Use in closed process, no likelihoo	od of exposure	PROC1	
Use in closed, continuous process	with occasional controlled exposure	PROC2	
Use in closed batch process (synth	hesis or formulation)	PROC3	
Use in batch and other process (sy	ynthesis) where opportunity for exposure arises	PROC4	
Mixing or blending in batch proces and/or significant contact)	ses for formulation of preparations and articles (multistage	PROC5	
Transfer of chemicals from / to ves	ssel / large containers at non-dedicated facilities	PROC8a	
Transfer of chemicals from / to ves	ssel / large containers at dedicated facilities	PROC8b	
Transfer of chemicals into small co	ontainers (dedicated filling line)	PROC9	
Use of laboratory reagents in small	Il scale laboratories	PROC15	
SECTION 2:	Conditions of use		
2.1	Contributing scenario controlling environmental exposure 1.1 Formulation of preparations (ERC 2)	<del>)</del> :	
As no environmental hazard was performed	s identified no environmental-related exposure assessment ar	nd risk characterization was	
2.2	Contributing scenario controlling worker exposure: 1.2 Use in closed process, no likelihood of exposure (PROC 1	)	
Product characteristics			
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High			
Human factors not influenced by	y risk management		
Exposed skin surface, Long Term, Exposed skin surface, Short term,			
Frequency and duration of use			
	Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Technical conditions and measu	ures to control dispersion from source towards the worker		
Local exhaust ventilation: No	Local exhaust ventilation: No		
Conditions and measures related to personal protection, hygiene and health evaluation			
Respiratory protection: No Dermal protection: No			
Other given operational condition	ons affecting workers exposure		
Place of use: Indoor Domain: Industrial			
2.3	Contributing scenario controlling worker exposure: 1.3 Use in closed, continuous process with occasional controll	ed exposure (PROC 2)	
Product characteristics			
Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High			



Human factors not influenced by risk management           Exposed skin surface, Long Term, Systemic effects: 480 cm²           Exposed skin surface, Short term, Systemic effects: 480 cm²           Frequency and duration of use           Duration of activity: > 4 hour(s) (default)           Frequency and duration of use           Duration of activity: > 4 hour(s) (default)           Frequency of use: 5 days / week(s)           Technical conditions and measures to control dispersion from source towards the worker           Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]           Conditions and measures related to personal protection, hygiene and health evaluation           Respiratory protection: No           Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]           Other given operational conditions affecting workers exposure           Place of use: Indoor           Domain: Industrial           2.4         Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)           Product characteristics           Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High           Human factors not influenced by risk management           Exposed skin surface, Short term, Systemic effects: 240 cm²           Exposed skin surface, Short term, Systemic effects: 240 cm²           Exposed		
Exposed skin surface, Short term, Systemic effects: 480 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)		
Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure:         1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)		
Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm² Exposed skin surface, Short term, Systemic effects: 240 cm² Exposed		
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%] Conditions and measures related to personal protection, hygiene and health evaluation Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%] Other given operational conditions affecting workers exposure Place of use: Indoor Domain: Industrial 2.4 Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3) Product characteristics Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High Human factors not influenced by risk management Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term,		
Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Erequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)		
Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)		
Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High Human factors not influenced by risk management Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)		
Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use  Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Frequency of use: 5 days / week(s)		
Technical conditions and measures to control dispersion from source towards the worker		
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]		
Conditions and measures related to personal protection, hygiene and health evaluation		
Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]		
Other given operational conditions affecting workers exposure		
Place of use: Indoor Domain: Industrial		
2.5Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC 4)		
Product characteristics		
Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High		
Human factors not influenced by risk management		
Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup>		
Frequency and duration of use		
Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Technical conditions and measures to control dispersion from source towards the worker		
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]		

SMIC BANG	Methanol	
Conditions and measures relate	d to personal protection, hygiene and health evaluation	
Respiratory protection: No Dermal protection: Gloves APF 5	Effectiveness, Dermal: 80%]	
Other given operational condition		
Place of use: Indoor Domain: Industrial		
2.6	Contributing scenario controlling worker exposure: 1.6 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) (PROC5)	
Product characteristics		
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High		
Human factors not influenced b	y risk management	
Exposed skin surface, Long Term, Exposed skin surface, Short term,		
Frequency and duration of use		
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s		
Technical conditions and measured	ures to control dispersion from source towards the worker	
Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 90%]	
Conditions and measures relate	d to personal protection, hygiene and health evaluation	
Respiratory protection: No Dermal protection: Gloves APF 5	[Effectiveness, Dermal: 80%]	
Other given operational condition	ons affecting workers exposure	
Place of use: Indoor Domain: Industrial		
2.7	Contributing scenario controlling worker exposure: 1.7 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)	
Product characteristics		
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High		
Human factors not influenced b	y risk management	
Exposed skin surface, Long Term, Exposed skin surface, Short term,	Systemic effects: 960 cm <sup>2</sup> Systemic effects: 960 cm <sup>2</sup>	
Frequency and duration of use		
Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Technical conditions and measu	ures to control dispersion from source towards the worker	
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]		
Conditions and measures relate	d to personal protection, hygiene and health evaluation	
Respiratory protection: No Dermal protection: Gloves APF 5	Effectiveness, Dermal: 80%]	
Other given operational conditions affecting workers exposure		
Place of use: Indoor Domain: Industrial		
2.8	Contributing scenario controlling worker exposure: 1.8 Transfer of chemicals from / to vessel / large containers at dedicated facilities (PROC 8b)	

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Methanol

Product characteristics         Percentage (w/w) of substance in mixturelaritide: 100 %.         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Prequency and duration of use         Duration of activity: > 4 hour(s) (default)         Prequency and duration of use         Duration of activity: > 4 hour(s) (default)         Prequency and divisions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 95%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Demark protection: Gloves APF 5 [Effectiveness, Dermai: 80%]         Other given operational conditions affecting worker exposure:         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure:         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure:         Protocut characteristics         Percontage (w/w) of substance in mixturelaritick: 100 %         Physical form of the used product: Liquid         Duration of activity: > 4 hour(s) (d			
Physical form of the used product: Liquid Durities: High	Product characteristics		
Exposed skin surface, Long Term, Systemic effects: 980 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 980 cm <sup>2</sup> Prequency and duration of us         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 95%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Demain protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9)         Product characteristics         Percentage (wiw) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustines: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Dermai: 80%]         Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Porduct ch	Physical form of the used product: Liquid		
Exposed skin surface. Short term. Systemic effects: 980 cm <sup>2</sup> Frequency and duration of use  Frequency of use: 5 days / week(s)  Technical conditions and measures to control dispersion from source towards the worker  Local exhaust veniliation: Yes (Effectiveness, Inhalation: 95%)  Conditions and measures related to personal protection, hygiene and health evaluation  Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]  Other given operational conditions affecting workers exposure  Place d use: Indoor Domain: Industrial  2.9  Contributing scenario controlling worker exposure  Product characteristics  Percentage (wW) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustines: High  Human factors not influenced by risk management Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface and the skin ducation: 80%] Exposed skin surface Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface Ind	Human factors not influenced b	y risk management	
Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 95%]         Conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9)         Protent characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustines: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Dermal protection: Glowes APF 5 [Effectiveness, Dermal: 80%]         Stace duse; Indoor			
Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 95%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Dermail protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting worker exposure         Place of use: Indoor Domain: industrial         2.9       Contributing scenario controlling worker exposure: 1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9)         Product characteristics         Percentage (wiy) of substance in mixture/article: 100 %         Physical form of the used product: Liquid Dustiness: High         Huma factors not influenced by risk management         Exposed skin surface, Nother My Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Shot term, Systemic effects: 480 cm <sup>2</sup> Erequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Dermal: 80%]         Place of use: Indoor         Dermation of activity: > 4 hour(s) (default) Frequency of use: No         Permetage (wiy) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Duration of activity: > 4 hour(s) (default)         Pere	Frequency and duration of use		
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 95%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Date of use: Indoor         Domain: industrial         2.9       Contributing scenario controlling worker exposure: 1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9)         Product characteristics         Percentage (wiv) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustienes: High         Huma factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Erequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal prot			
Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Prysical form of the used product: Liquid Dustines: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm²         Prequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency and duration of use         Conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Percentage (w/w) of substance in mixture/article: 100 % Prysical industrial         2.9       Contributing scenario controlling worker exposure: 1.0 use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics       Product characteristics         Product oracteristic	Technical conditions and meas	ures to control dispersion from source towards the worker	
Respiratory protection: No       Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Prysical form of the used product: Liquid Dustiness: Filgh         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>3</sup> Prequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency or use: 5 days / week(s)         Conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Duration of use product: Liquid Dustiness: High         Place of use: Indoor Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laborat	Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 95%]	
Derival protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustines: High         Human factors not influenced by risk management	Conditions and measures relate	d to personal protection, hygiene and health evaluation	
Place of use: Indoor Domain: Industrial 2.9 Contributing scenario controlling worker exposure: 1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9) Product characteristics Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High Human factors not influenced by risk management Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed s		[Effectiveness, Dermal: 80%]	
Domain: Industrial         Contributing scenario controlling worker exposure:           2.9         Contributing scenario controlling worker exposure:           1.9. Transfer of chemicals into small containers (dedicated filling line) (PROC 9)           Product characteristics           Percentage (w/w) of substance in mixture/article: 100 %           Physical form of the used product: Liquid           Dustiness: High           Human factors not influenced by risk management           Exposed skin surface, Long Term, Systemic effects: 480 cm²           Exposed skin surface, Short term, Systemic effects: 480 cm²           Frequency and duration of use           Duration of activity: > 4 hour(s) (default)           Frequency of use: 5 days / week(s)           Technical conditions and measures to control dispersion from source towards the worker           Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]           Conditions and measures related to personal protection, hygiene and health evaluation           Respiratory protection: No           Demain: Industrial           2.9         Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)           Product characteristics           Percentage (w/w) of substance in mixture/article: 100 %           Physical form of the used product: Liquid Dustiness: High           Human factor	Other given operational condition	ons affecting workers exposure	
1.9 Transfer of chemicals into small containers (dedicated filling line) (PROC 9)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical from of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Duration of activity: > 4 hour(s) (default)         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical from of the used product: Liquid Dustin			
Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Prequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> <td< td=""><td>2.9</td><td></td></td<>	2.9		
Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use	Product characteristics		
Exposed skin surface, Long Term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9         Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)	Physical form of the used product		
Exposed skin surface, Short term, Systemic effects: 480 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm² Exposed skin surface, Short term, Systemic effects: 240 cm²         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)	Human factors not influenced b	y risk management	
Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)			
Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm² Exposed skin surface, Short term, Systemic effects: 240 cm²         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Erequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)	Frequency and duration of use		
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9         Contributing scenario controlling worker exposure:         1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Erequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)			
Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Prequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)	Technical conditions and meas	ures to control dispersion from source towards the worker	
Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)	Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 90%]	
Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Place of use: Indoor         Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Erequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)	Conditions and measures relate	d to personal protection, hygiene and health evaluation	
Domain: Industrial         2.9       Contributing scenario controlling worker exposure: 1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		[Effectiveness, Dermal: 80%]	
1.10 Use of laboratory reagents in small scale laboratories (PROC 15)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)			
Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)	2.9		
Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)			
Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)	Physical form of the used product: Liquid		
Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)	Ũ	y risk management	
Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)			
Frequency of use: 5 days / week(s)	Frequency and duration of use		
Technical conditions and measures to control dispersion from source towards the worker			
	Technical conditions and measure	ures to control dispersion from source towards the worker	

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Methanol

Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]

#### Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]

#### Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection: No

Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]

**SECTION 3:** 

1.11 Exposure estimation

#### 3.1. Environment

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed

#### 3.2. Worker

Contributing scenario controlling worker exposure: Use in closed process, no likelihood of exposure (PROC 1)

Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Inhalation, Systemic effects, Long Term	0.013351 mg/m <sup>3</sup>	130 mg/m³	0.000103
Inhalation, Systemic effects, Short term	0.053403 mg/m <sup>3</sup>	130 mg/m³	0.000411
Dermal, Systemic effects, Long Term	0.034286 mg/kg bw/day	20 mg/kg bw/day	0.001714
Dermal, Systemic effects, Short term	0.034286 mg/kg bw/day	20 mg/kg bw/day	0.001714
Combined routes, Systemic effects, Long Term	0.036193 mg/kg bw/day	-	0.001817
Combined routes, Systemic effects, Short term	0.041915 mg/kg bw/day	-	0.002125
Contributing scenario contro (PROC 2)	billing worker exposure: Use in clo	osed, continuous process wit	h occasional controlled exposure
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	0.274286 mg/kg bw/day	20 mg/kg bw/day	0.013174
Dermal, Systemic effects, Short term	0.274286 mg/kg bw/day	20 mg/kg bw/day	0.013174
Inhalation, Systemic effects, Long Term	3.338 mg/m <sup>3</sup>	130 mg/m³	0.025675
Inhalation, Systemic effects, Short term	13.351 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.102698
Combined routes, Systemic effects, Long Term	0.7511mg/kg bw/day	-	0.039389
Combined routes, Systemic effects, Short term	2.182 mg/kg bw/day	-	0.116413
Contributing scenario contro	olling worker exposure: Use in clo	osed batch process (synthesi	is or formulation) (PROC 3)
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857
Dermal, Systemic effects, Short term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857
Inhalation, Systemic effects, Long Term	6.675 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.051349
Inhalation, Systemic effects, Short term	26.702 mg/m <sup>3</sup>	130 mg/m³	0.205397



Dermal, Systemic effects, Long Term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Contributing scenario contro facilities (PROC 8b)	Illing worker exposure: Transfer	of chemicals from / to vessel	/ large containers at dedicated
Combined routes, Systemic effects, Short term	12.279 mg/kg bw/day	-	0.650635
Combined routes, Systemic effects, Long Term	7.511 mg/kg bw/day	-	0.393889
Inhalation, Systemic effects, Short term	66.754 mg/m³	130 mg/m <sup>3</sup>	0.513492
Inhalation, Systemic effects, Long Term	33.377 mg/m³	130 mg/m³	0.256746
Dermal, Systemic effects, Short term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Dermal, Systemic effects, Long Term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Contributing scenario contro	lling worker exposure: Transfer	of chemicals from / to vessel	/ large containers at non-
Combined routes, Systemic effects, Short term	4.65 mg/kg bw/day	-	0.239841
Combined routes, Systemic effects, Long Term	7.511 mg/kg bw/day	-	0.393889
Inhalation, Systemic effects, Short term	13.351 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.102698
Inhalation, Systemic effects, Long Term	33.377 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.256746
Dermal, Systemic effects, Short term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Dermal, Systemic effects, Long Term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Contributing scenario contro and articles (multistage and/or	olling worker exposure: Mixing of significant contact) (PROC 5)	blending in batch processes	for formulation of preparations
Combined routes, Systemic effects, Short term	9 mg/kg bw/day	-	0.479365
Combined routes, Systemic effects, Long Term	3.279 mg/kg bw/day	-	0.17127
Inhalation, Systemic effects, Short term	53.403 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.410794
Inhalation, Systemic effects, Long Term	13.351 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.102698
Long Term Dermal, Systemic effects, Short term	1.371 mg/kg bw/day	20 mg/kg bw/day	0.068571
Dermal, Systemic effects,	1.371 mg/kg bw/day	20 mg/kg bw/day	0.068571
exposure arises (PROC 4) Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Contributing scenario contro	lling worker exposure: Use in ba	atch and other process (synth	esis) where opportunity for
Combined routes, Systemic effects, Short term	3.952 mg/kg bw/day	-	0.212254
Combined routes, Systemic effects, Long Term	1.091 mg/kg bw/day	-	0.058206



Dermal, Systemic effect Short term	ts,	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Inhalation, Systemic eff Long Term	ects,	10.013 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.077024
Inhalation, Systemic eff Short term	ects,	20.026 mg/m <sup>3</sup>	130 mg/m³	0.154048
Combined routes, Syste effects, Long Term	emic	4.173 mg/kg bw/day	-	0.214167
Combined routes, Syste effects, Short term	emic	5.604 mg/kg bw/day	-	0.29119
Contributing scenario (PROC 9)	contro	lling worker exposure: Transfe	r of chemicals into small conta	iners (dedicated filling line)
Exposure route		Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effect Long Term	ts,	1.371 mg/kg bw/day	20 mg/kg bw/day	0.068571
Dermal, Systemic effect Short term	ts,	1.371 mg/kg bw/day	20 mg/kg bw/day	0.068571
Inhalation, Systemic eff Long Term	ects,	26.702 mg/m <sup>3</sup>	130 mg/m³	0.205397
Inhalation, Systemic eff Short term	ects,	53.403 mg/m³	130 mg/m³	0.410794
Combined routes, Syste effects, Long Term	emic	5.186 mg/kg bw/day	-	0.273968
Combined routes, Syste effects, Short term	emic	9 mg/kg bw/day	-	0.479365
Contributing scenario	contro	lling worker exposure: Use of la	aboratory reagents in small sc	ale laboratories (PROC 15)
Exposure route		Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effect Long Term	ts,	0.068571 mg/kg bw/day	20 mg/kg bw/day	0.003429
Dermal, Systemic effect Short term	ts,	0.068571 mg/kg bw/day	20 mg/kg bw/day	0.003429
Inhalation, Systemic eff Long Term	ects,	6.675 mg/m³	130 mg/m <sup>3</sup>	0.051349
Inhalation, Systemic eff Short term	ects,	13.351 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.102698
Combined routes, Syste effects, Long Term	emic	1.022 mg/kg bw/day	-	0.054778
Combined routes, Syste effects, Short term	emic	1.976 mg/kg bw/day	-	0.106127
SECTION 4:	1.12 G	uidance to DU to evaluate whe	ther he works inside the bou	Indaries set by the ES
4.1 Health				

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

#### 4.2 Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling could be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use, additional RMMs or a site-specific chemical safety assessment is required.

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2. Exposure Scenario 2: Use a SECTION 1:	as a fuel in industrial settings Title of exposure scenario	
	Use as a fuel in industrial settings	
Contributing scenario controllir	ng environmental exposure	
Industrial use of substances in clo		ERC7
Contributing scenario controllir	•	
Use in closed process, no likelihoo		PROC1
· ·	s with occasional controlled exposure	PROC2
Use in closed batch process (synt		PROC3
	ssel / large containers at non-dedicated facilities	PROC8a
	ssel / large containers at roll-dedicated facilities	PROC8b
	<b>.</b>	
<b>č</b>	hited exposure to unburned product to be expected	PROC16
Hand-mixing with intimate contact	,	PROC19
SECTION 2:	Conditions of use	
2.1	Contributing scenario controlling environmental exposure 1.1 Industrial use of substances in closed systems (ERC 7)	:
As no environmental hazard was performed	s identified no environmental-related exposure assessment an	d risk characterization was
2.2	Contributing scenario controlling worker exposure: 1.2 Use in closed process, no likelihood of exposure (PROC 1)	l de la companya de l
Product characteristics		
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High		
Human factors not influenced b	y risk management	
Exposed skin surface, Long Term Exposed skin surface, Short term,	, Systemic effects: 240 cm² Systemic effects: 240 cm²	
Frequency and duration of use		
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s		
Technical conditions and measured	ures to control dispersion from source towards the worker	
Local exhaust ventilation: No		
Conditions and measures relate	ed to personal protection, hygiene and health evaluation	
Respiratory protection: No Dermal protection: No		
Other given operational condition	ons affecting workers exposure	
Place of use: Indoor Domain: Industrial		
2.3	Contributing scenario controlling worker exposure: 1.3 Use in closed, continuous process with occasional controlle	ed exposure (PROC 2)
Product characteristics		
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High		
Human factors not influenced b	y risk management	
Exposed skin surface, Long Term Exposed skin surface, Short term,	, Systemic effects: 480 cm <sup>2</sup>	



UAFAC	Methanol			
Frequency and duration of use				
Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)				
Technical conditions and meas	Technical conditions and measures to control dispersion from source towards the worker			
Local exhaust ventilation: Yes [Eff	iectiveness, Inhalation: 90%]			
Conditions and measures relate	ed to personal protection, hygiene and health evaluation			
Respiratory protection: No Dermal protection: Gloves APF 5	[Effectiveness, Dermal: 80%]			
Other given operational condition	ons affecting workers exposure			
Place of use: Indoor Domain: Industrial				
2.4	Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)			
Product characteristics				
Percentage (w/w) of substance in Physical form of the used product Dustiness: High				
Human factors not influenced b	y risk management			
Exposed skin surface, Long Term Exposed skin surface, Short term,				
Frequency and duration of use				
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s				
Technical conditions and meas	ures to control dispersion from source towards the worker			
Local exhaust ventilation: Yes [Eff	fectiveness, Inhalation: 90%]			
Conditions and measures related to personal protection, hygiene and health evaluation				
Respiratory protection: No Dermal protection: Gloves APF 5	[Effectiveness, Dermal: 80%]			
Other given operational conditions affecting workers exposure				
Place of use: Indoor Domain: Industrial				
2.5	Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)			
Product characteristics				
Percentage (w/w) of substance in Physical form of the used product Dustiness: High				
Human factors not influenced b	y risk management			
Exposed skin surface, Long Term Exposed skin surface, Short term,				
Frequency and duration of use				
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s				
Technical conditions and meas	ures to control dispersion from source towards the worker			
Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 90%]			
Conditions and measures related to personal protection, hygiene and health evaluation				
Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]				

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Other given operational conditi	ons affecting workers exposure
Place of use: Indoor Domain: Industrial	
2.6	Contributing scenario controlling worker exposure: 1.6 Transfer of chemicals from / to vessel / large containers at dedicated facilities (PROC 8b)
Product characteristics	
Percentage (w/w) of substance in Physical form of the used product Dustiness: High	
Human factors not influenced b	by risk management
Exposed skin surface, Long Term Exposed skin surface, Short term	
Frequency and duration of use	
Duration of activity: > 4 hour(s) (d Frequency of use: 5 days / week(	
Technical conditions and meas	ures to control dispersion from source towards the worker
Local exhaust ventilation: Yes [Ef	fectiveness, Inhalation: 95%]
Conditions and measures relate	ed to personal protection, hygiene and health evaluation
Respiratory protection: No Dermal protection: Gloves APF 5	[Effectiveness, Dermal: 80%]
Other given operational conditi	ons affecting workers exposure
Place of use: Indoor Domain: Industrial	
2.7	Contributing scenario controlling worker exposure: 1.7 Using material as fuel sources, limited exposure to unburned product to be expected (PROC 16)
Product characteristics	
Percentage (w/w) of substance in Physical form of the used product Dustiness: High	
Human factors not influenced b	by risk management
Exposed skin surface, Long Term Exposed skin surface, Short term	
Frequency and duration of use	
Duration of activity: > 4 hour(s) (d Frequency of use: 5 days / week(	
Technical conditions and meas	ures to control dispersion from source towards the worker
Local exhaust ventilation: No	
Conditions and measures relate	ed to personal protection, hygiene and health evaluation
Respiratory protection: No Dermal protection: Gloves APF 5	[Effectiveness, Dermal: 80%]
Place of use: Indoor Domain: Industrial	
2.8	Contributing scenario controlling worker exposure: 1.8 Hand-mixing with intimate contact and only PPE available (PROC 19)
Product characteristics	
Percentage (w/w) of substance in Physical form of the used product Dustiness: High	
	by risk management

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	erm, Systemic effects: 1980 cm <sup>2</sup> rm, Systemic effects: 1980 cm <sup>2</sup>		
Frequency and duration of u	se		
Duration of activity: 1 - 4 hour( Frequency of use: 5 days / we			
Technical conditions and me	easures to control dispersion	from source towards the wor	ker
Local exhaust ventilation: No			
Conditions and measures re	lated to personal protection, h	ygiene and health evaluation	l
Respiratory protection: No Dermal protection: Gloves API	- 5 [Effectiveness, Dermal: 80%]	]	
SECTION 3:	1.9 Exposure estimati	on	
3.1. Environment			
As no environmental hazard w performed	as identified no environmental-re	elated exposure assessment ar	nd risk characterization was
3.2. Worker			
Contributing scenario contro	olling worker exposure: Use in	closed process, no likelihood c	of exposure (PROC 1)
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Inhalation, Systemic effects, Long Term	0.013351 mg/m³	130 mg/m <sup>3</sup>	0.000103
Inhalation, Systemic effects, Short term	0.053403 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.000411
Dermal, Systemic effects, Long Term	0.034286 mg/kg bw/day	20 mg/kg bw/day	0.001714
Dermal, Systemic effects, Short term	0.034286 mg/kg bw/day	20 mg/kg bw/day	0.001714
Combined routes, Systemic effects, Long Term	0.036193 mg/kg bw/day	-	0.001817
Combined routes, Systemic effects, Short term	0.041915 mg/kg bw/day	-	0.002125
Contributing scenario contro (PROC 2)	Illing worker exposure: Use in	closed, continuous process with	h occasional controlled exposure
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	0.274286 mg/kg bw/day	20 mg/kg bw/day	0.013714
Dermal, Systemic effects, Short term	0.274286 mg/kg bw/day	20 mg/kg bw/day	0.013714
Inhalation, Systemic effects, Long Term	3.338 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.025675
Inhalation, Systemic effects, Short term	13.351 mg/m³	130 mg/m <sup>3</sup>	0.102698
Combined routes, Systemic effects, Long Term	0.7511mg/kg bw/day	-	0.039389
Combined routes, Systemic effects, Short term	2.182 mg/kg bw/day	-	0.116413
Contributing scenario contro	Illing worker exposure: Use in	closed batch process (synthesi	s or formulation) (PROC 3)
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857
Dermal, Systemic effects, Short term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857



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Inhalation, Systemic effects, Long Term	6.675 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.051349
Inhalation, Systemic effects, Short term	26.702 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.205397
Combined routes, Systemic effects, Long Term	1.091 mg/kg bw/day	-	0.058206
Combined routes, Systemic effects, Short term	3.952 mg/kg bw/day	-	0.212254
Contributing scenario contro dedicated facilities (PROC 8a)	olling worker exposure: Transfer	of chemicals from / to vesse	/ large containers at non-
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Dermal, Systemic effects, Short term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Inhalation, Systemic effects, Long Term	33.377 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.256746
Inhalation, Systemic effects, Short term	66.754 mg/m³	130 mg/m <sup>3</sup>	0.513492
Combined routes, Systemic effects, Long Term	7.511 mg/kg bw/day	-	0.393889
Combined routes, Systemic effects, Short term	12.279 mg/kg bw/day	-	0.650635
Contributing scenario contro facilities (PROC 8b)	olling worker exposure: Transfer	of chemicals from / to vesse	/ large containers at dedicated
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Dermal, Systemic effects, Short term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Inhalation, Systemic effects, Long Term	10.013 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.077024
Inhalation, Systemic effects, Short term	20.026 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.154048
Combined routes, Systemic effects, Long Term	4.173 mg/kg bw/day	-	0.214167
Combined routes, Systemic effects, Short term	5.604 mg/kg bw/day	-	0.29119
Contributing scenario contro to be expected (PROC 16)	olling worker exposure: Using ma	aterial as fuel sources, limited	d exposure to unburned product
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	0.068571 mg/kg bw/day	20 mg/kg bw/day	0.003429
Dermal, Systemic effects, Short term	0.041143 mg/kg bw/day	20 mg/kg bw/day	0.002057
Inhalation, Systemic effects,	33.377 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.256746
Long Term Inhalation, Systemic effects,	80.105 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.61619
Inhalation, Systemic effects, Short term Combined routes, Systemic effects, Long Term	80.105 mg/m <sup>3</sup> 4.837 mg/kg bw/day	130 mg/m³ -	0.61619
Long Term Inhalation, Systemic effects, Short term Combined routes, Systemic		130 mg/m³ - -	



Exposure route		Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effe Long Term	cts,	1.697 mg/kg bw/day	20 mg/kg bw/day	0.084857
Dermal, Systemic effe Short term	cts,	1.697 mg/kg bw/day	20 mg/kg bw/day	0.084857
Inhalation, Systemic e Long Term	ffects,	20.062 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.154048
Inhalation, Systemic e Short term	ffects,	66.754 mg/m³	130 mg/m <sup>3</sup>	0.513492
Combined routes, Sys effects, Long Term	temic	4.588 mg/kg bw/day	-	0.238905
Combined routes, Sys effects, Short term	temic	11.233 mg/kg bw/day	-	0.598349
SECTION 4:	1.10 G	1.10 Guidance to DU to evaluate whether he works inside the boundaries set by the ES		
4.1 Health				
Where other Risk Mar managed to at least e	0	•	tions are adopted, then users sh	ould ensure that risks are

#### 4.2 Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling could be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use, additional RMMs or a site-specific chemical safety assessment is required.

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Contributing scenario controllin Wide dispersive indoor use of rea	Use as a fuel in professional setting	
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_		
'	ctive substances in open systems	ERC8b
Nide dispersive outdoor use of re	active substances in open systems	ERC8e
Contributing scenario controllir		
Jse in closed process, no likeliho		PROC1
•	s with occasional controlled exposure	PROC2
Jse in closed batch process (synt	•	PROC3
	ssel / large containers at non-dedicated facilities	PROC8a
	ssel / large containers at dedicated facilities	PROC8b
	nited exposure to unburned product to be expected	PROC16
Hand-mixing with intimate contact		PROC19
SECTION 2:	Conditions of use	
2.1	Contributing scenario controlling environmental exposure:	
. 1	Industrial use of substances in closed systems (ERC 8b) Wide dispersive outdoor use of reactive substances in oper	
As no environmental hazard was	s identified no environmental-related exposure assessment and	d risk characterization was
2.2	Contributing scenario controlling worker exposure: 1.2 Use in closed process, no likelihood of exposure (PROC 1)	
Product characteristics		
Percentage (w/w) of substance in Physical form of the used product Dustiness: High		
Human factors not influenced b	y risk management	
Exposed skin surface, Long Term Exposed skin surface, Short term,	, Systemic effects: 240 cm <sup>2</sup> , Systemic effects: 240 cm <sup>2</sup>	
Frequency and duration of use		
Duration of activity: > 4 hour(s) (duration of activity: > 4 hour(s) (duration of upon f days)		
Frequency of use: 5 days / week( Fechnical conditions and meas	s) ures to control dispersion from source towards the worker	
_ocal exhaust ventilation: No		
	ed to personal protection, hygiene and health evaluation	
Respiratory protection: No Dermal protection: No		
•	ons affecting workers exposure	
Place of use: Indoor	<u> </u>	
Domain: Professional		
2.3	Contributing scenario controlling worker exposure: 1.3 Use in closed, continuous process with occasional controlle	d exposure (PROC 2)
Product characteristics	•	
Percentage (w/w) of substance in Physical form of the used product Dustiness: High		
Human factors not influenced b	y risk management	



Duration of activity: > 4 hour(s) (default)         Prequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 80%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Demail protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Protessional         Product characteristics         Product draracteristics         Respiratory protection: No         Product draracteristics         Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Frequency of use: S days / week(s)         Technical conditions and measures to control dispersion from source towa	<b>X</b>	
Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)           Technical conditions and measures to control dispersion from source towards the worker           Locale achaust ventilation: Yes [Effectiveness, Inhalation: 80%]           Conditions and measures related to personal protection, hygiene and health evaluation           Respiratory protection: No Damma protection: Gloves APF 5 [Effectiveness, Dermal: 80%]           Other given operational conditions affecting workers exposure           Place of use: Indoor           Domain: Protection: No           Density: Protection: No           Proceed use: Indoor           Dotate characteristics           Product characteristics           Product characteristics           Product characteristics           Product characteristics           Product activity: > 4 hour(s) (default)           Frequency and duration of use           Duration of activity: > 4 hour(s) (default)           Frequency and measures related to personal protection, hygiene and health evaluation           Bensi protection: No           Demain protection: No		
Frequency of use: 5 days / wiesk(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 80%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Demail protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC.3)         Product characteristics         Percentage (wiv) of substance in mixture/anticle: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / weak(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No	Frequency and duration of use	
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 80%]           Conditions and measures related to personal protection, hygiene and health evaluation           Respiratory protection: No           Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]           Other given operational conditions affecting workers exposure           Place of use: Indoor           Domain: Professional           2.4         Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)           Product characteristics         Percentage (w/v) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High           Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Duration of activity: > 4 hour(s) (default) Prequency and duration of use         Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Duration of activity: > 4 hour(s) (default) Prequency and duration or use         Contributing scenario from source towards the worker           Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation           Respiratory protection: No         Effectiveness, Dermal: 80%]         Cohtributing scenario controlling worker exposure: 1,5 Transfer o		
Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Perentage (wiv) of substance in mixture/article: 100 % Projecting form of the used product: Liquid Dustines: High         Human factors not Influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface (short wirk) (default) Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures to control dispersion from source towards the valuation         Respiratory protection: No Bermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting worker exposure: (PROCCB)         Product characteristics         Product characteristics         Product characteristics         Product char	Technical conditions and measured	ures to control dispersion from source towards the worker
Respiratory protection: No       Dermal protection: Gives APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure       Pipes of use: Indoor         Domain: Professional       Contributing scenario controlling worker exposure: <ul> <li>1.4 Use in closed batch process (synthesis or formulation) (PROC 3)</li> </ul> Product characteristics       Percentage (wiv) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustness: High         Human factors not influenced by risk management       Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Prequency and duration of use       Duration of activity: > 4 hour(s) (default)       Prequency or set (s)         Terquency or surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Duration of activity: > 4 hour(s) (default)       Prequency and duration: of use       Prequency and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]       Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No       Dermal protection: Riove APF 5 [Effectiveness, Dermal: 80%]       Other given operational conditions affecting worker exposure:	Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 80%]
Derminal profection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.4       Contributing scenario controlling worker exposure: <ul> <li>1.4 Use in closed batch process (synthesis or formulation) (PROC 3)</li> </ul> Product characteristics       Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid       Dustiness: High         Human factors not influenced by risk management       Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Conditions and measures to control dispersion from source towards the worker       Eccal exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation       Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]       Other given operational conditions affecting worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facili	Conditions and measures relate	d to personal protection, hygiene and health evaluation
Place of use: Indoor         Domain: Professional         2.4       Contributing scenario controlling worker exposure: <ul> <li>1.4 Use in closed batch process (synthesis or formulation) (PROC 3)</li> </ul> Product characteristics       Percentage (wiv) of substance in mixture/article: 100 %         Physical form of the used product: Liquid       Dustiness: High         Human factors not influenced by risk management       Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>3</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>3</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>3</sup> Frequency and duration of use       Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)       Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]       Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No       Dermal: 80%]       Other given operational conditions affecting workers exposure         Place of use: Indoor       Domain: Professional       2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROCBa)         Product characteristics       Procecaa       Procecaa         Product characteristics       Prepreparage (wiv) of substance in	Respiratory protection: No Dermal protection: Gloves APF 5	Effectiveness, Dermal: 80%]
Domain: Professional           2.4         Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)           Product characteristics         Percentage (ww) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High           Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>3</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>3</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>3</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default). Frequency of use: 5 days / week(s)         Frequency and surface, Short term, Systemic effects: 960 cm <sup>3</sup> Conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]           Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No           Dermai protection: No         Dermai protection: Gloves APF 5 [Effectiveness, Dermai: 80%]           Other given operational conditions affecting workers exposure         Place of use: Indoor           Dermai protection: No         Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Product characteristics         Procentage (ww) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness High           Human factors not influenced by risk management         <	Other given operational condition	ons affecting workers exposure
1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventiliation: Yes [Effectiveness, Dermal: 80%]         Onditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)         Product characteristics       Percentage (w/w) of substance in mixture/article: 5 %         Physical form of the used product: Liquid       Dustanes: High         Human factors not infl	Place of use: Indoor Domain: Professional	
Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High Human factors not influenced by risk management Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 960 cm <sup>2</sup> Frequency and duration of use Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s) Technical conditions and measures to control dispersion from source towards the worker Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%] Conditions and measures related to personal protection, hygiene and health evaluation Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%] Other given operational conditions affecting workers exposure Place of use: Indoor Domain: Professional 2.5 Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROCBa) Product characteristics Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High Human factors not influenced by risk management Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface	2.4	
Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 960 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor Domain: Professional         2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC&a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustines: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Shot term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Shot term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Shot term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Shot term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Shot term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Shot term, Systemic effect	Product characteristics	
Exposed skin surface, Long Term, Systemic effects: 960 cm²         Exposed skin surface, Short term, Systemic effects: 960 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC6a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Erequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and meas		
Exposed skin surface, Short term, Systemic effects: 960 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Derration of activity: > 4 hour(s) (default)         Primal protection: Ro         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROCBa)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 %         Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Short term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²     <	Human factors not influenced b	y risk management
Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.5       Contributing scenario controlling worker exposure: (.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Prequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: No		
Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: No	Frequency and duration of use	
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%] Conditions and measures related to personal protection, hygiene and health evaluation Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%] Other given operational conditions affecting workers exposure Place of use: Indoor Domain: Professional 2.5 Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a) Product characteristics Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High Human factors not influenced by risk management Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s) Technical conditions and measures to control dispersion from source towards the worker Local exhaust ventilation: No		
Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Sort term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: No	Technical conditions and measured	ures to control dispersion from source towards the worker
Respiratory protection: No       Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Professional         2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effectshort term, Systemic effectshort term, Syste	Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 90%]
Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor Domain: Professional         2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: No	Conditions and measures relate	d to personal protection, hygiene and health evaluation
Place of use: Indoor         Domain: Professional         2.5       Contributing scenario controlling worker exposure:         1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 %         Physical form of the used product: Liquid       Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Erequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: No	Respiratory protection: No Dermal protection: Gloves APF 5	Effectiveness, Dermal: 80%]
Domain: Professional         2.5       Contributing scenario controlling worker exposure: 1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: No	Other given operational condition	ons affecting workers exposure
1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC8a)         Product characteristics         Percentage (w/w) of substance in mixture/article: 5 %         Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: No	Place of use: Indoor Domain: Professional	
Percentage (w/w) of substance in mixture/article: 5 % Physical form of the used product: Liquid Dustiness: High Human factors not influenced by risk management Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s) Technical conditions and measures to control dispersion from source towards the worker Local exhaust ventilation: No	2.5	1.5 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities
Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 480 cm²         Exposed skin surface, Short term, Systemic effects: 480 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: No	Product characteristics	
Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s) Technical conditions and measures to control dispersion from source towards the worker Local exhaust ventilation: No		
Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use  Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)  Technical conditions and measures to control dispersion from source towards the worker  Local exhaust ventilation: No	Human factors not influenced b	y risk management
Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s) Technical conditions and measures to control dispersion from source towards the worker Local exhaust ventilation: No		
Frequency of use: 5 days / week(s) Technical conditions and measures to control dispersion from source towards the worker Local exhaust ventilation: No	Frequency and duration of use	
Local exhaust ventilation: No		
	Technical conditions and measu	ures to control dispersion from source towards the worker
Conditions and measures related to personal protection, hygiene and health evaluation	Local exhaust ventilation: No	
	Conditions and measures relate	d to personal protection, hygiene and health evaluation

	Methanol
Respiratory protection: No Dermal protection: Gloves APF 5	[Effectiveness, Dermal: 80%]
Other given operational condition	ons affecting workers exposure
Place of use: Indoor Domain: Professional	
2.6	Contributing scenario controlling worker exposure: 1.6 Transfer of chemicals from / to vessel / large containers at dedicated facilities (PROC 8b)
Product characteristics	
Percentage (w/w) of substance in Physical form of the used product Dustiness: High	
Human factors not influenced b	y risk management
Exposed skin surface, Long Term Exposed skin surface, Short term,	
Frequency and duration of use	
Duration of activity: > 4 hour(s) (d Frequency of use: 5 days / week(s	
Technical conditions and meas	ures to control dispersion from source towards the worker
Local exhaust ventilation: No	
Conditions and measures relate	ed to personal protection, hygiene and health evaluation
Respiratory protection: No Dermal protection: Gloves APF 5	[Effectiveness, Dermal: 80%]
Other given operational condition	ons affecting workers exposure
Place of use: Indoor Domain: Professional	
2.7	Contributing scenario controlling worker exposure: 1.7 Using material as fuel sources, limited exposure to unburned product to be expected (PROC 16)
Product characteristics	
Percentage (w/w) of substance in Physical form of the used product Dustiness: High	
Human factors not influenced b	y risk management
Exposed skin surface, Long Term Exposed skin surface, Short term,	
Frequency and duration of use	
Duration of activity: > 4 hour(s) (d Frequency of use: 5 days / week(s	
Technical conditions and meas	ures to control dispersion from source towards the worker
Local exhaust ventilation: No	
Conditions and measures relate	ed to personal protection, hygiene and health evaluation
Respiratory protection: No Dermal protection: Gloves APF 5	[Effectiveness, Dermal: 80%]
Other given operational condition	ons affecting workers exposure
Place of use: Indoor Domain: Professional	
2.8	Contributing scenario controlling worker exposure: 1.8 Hand-mixing with intimate contact and only PPE available (PROC 19)



			mothanol
Percentage (w/w) of substance Physical form of the used prode Dustiness: High			
Human factors not influence	d by risk management		
	rm, Systemic effects: 1980 cm <sup>2</sup> rm, Systemic effects: 1980 cm <sup>2</sup>		
Frequency and duration of us	se		
Duration of activity: 1 - 4 hour(s Frequency of use: 5 days / wee			
Technical conditions and me	asures to control dispersion fi	rom source towards the work	er
Local exhaust ventilation: No			
Conditions and measures rel	ated to personal protection, hy	ygiene and health evaluation	
Respiratory protection: No Dermal protection: Gloves APF	5 [Effectiveness, Dermal: 80%]		
Other given operational conc	litions affecting workers expos	sure	
Place of use: Indoor Domain: Professional			
SECTION 3:	1.9 Exposure estimation	on	
3.1. Environment			
As no environmental hazard wa performed	as identified no environmental-re	lated exposure assessment and	d risk characterization was
3.2. Worker			
Contributing scenario contro	Illing worker exposure: Use in o	closed process, no likelihood of	exposure (PROC 1)
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Inhalation, Systemic effects, Long Term	0.0133508 mg/m <sup>3</sup>	130 mg/m³	0.001027
Inhalation, Systemic effects, Short term	0.534032 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.004108
Dermal, Systemic effects, Long Term	0.034286 mg/kg bw/day	20 mg/kg bw/day	0.001714
Dermal, Systemic effects, Short term	0.034286 mg/kg bw/day	20 mg/kg bw/day	0.001714
Combined routes, Systemic effects, Long Term	0.053358 mg/kg bw/day	-	0.002741
Combined routes, Systemic effects, Short term	0.110576 mg/kg bw/day	-	0.005822
Contributing scenario controlling worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC 2)			
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	0.274286 mg/kg bw/day	20 mg/kg bw/day	0.013174
Dermal, Systemic effects, Short term	0.274286 mg/kg bw/day	20 mg/kg bw/day	0.013174
Inhalation, Systemic effects, Long Term	13.351 mg/m <sup>3</sup>	130 mg/m³	0.102698
Inhalation, Systemic effects, Short term	53.403 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.410794
Combined routes, Systemic effects, Long Term	2.182 mg/kg bw/day	-	0.116413
Combined routes, Systemic effects, Short term	7.903 mg/kg bw/day	-	0.424508



Contributing scenario contro	Illing worker exposure: Use in c	losed batch process (synthesis	or formulation) (PROC 3)	
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)	
Dermal, Systemic effects, Long Term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857	
Dermal, Systemic effects, Short term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857	
Inhalation, Systemic effects, Long Term	26.702 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.205397	
Inhalation, Systemic effects, Short term	106.806 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.821587	
Combined routes, Systemic effects, Long Term	3.952 mg/kg bw/day	-	0.212254	
Combined routes, Systemic effects, Short term	15.395 mg/kg bw/day	-	0.828444	
Contributing scenario contro dedicated facilities (PROC 8a)	Illing worker exposure: Transfer	of chemicals from / to vessel / I	arge containers at non-	
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)	
Dermal, Systemic effects, Long Term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857	
Dermal, Systemic effects, Short term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857	
Inhalation, Systemic effects, Long Term	33.377 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.256746	
Inhalation, Systemic effects, Short term	66.754 mg/m³	130 mg/m <sup>3</sup>	0.513492	
Combined routes, Systemic effects, Long Term	4.905 mg/kg bw/day	-	0.263603	
Combined routes, Systemic effects, Short term	9.673 mg/kg bw/day	-	0.520349	
<b>Contributing scenario contro</b> facilities (PROC 8b)	Iling worker exposure: Transfer	of chemicals from / to vessel / I	arge containers at dedicated	
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)	
Dermal, Systemic effects, Long Term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857	
Dermal, Systemic effects, Short term	0.137143 mg/kg bw/day	20 mg/kg bw/day	0.006857	
Inhalation, Systemic effects, Long Term	16.688 mg/m³	130 mg/m <sup>3</sup>	0.128373	
Inhalation, Systemic effects, Short term	33.377 mg/m³	130 mg/m <sup>3</sup>	0.256746	
Combined routes, Systemic effects, Long Term	2.521 mg/kg bw/day	-	0.13523	
Combined routes, Systemic effects, Short term	4.905 mg/kg bw/day	-	0.263603	
<b>Contributing scenario contro</b> to be expected (PROC 16)	Illing worker exposure: Using m	aterial as fuel sources, limited e	xposure to unburned product	
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)	
Dermal, Systemic effects, Long Term	0.068571 mg/kg bw/day	20 mg/kg bw/day	0.003429	
Dermal, Systemic effects, Short term	0.041143 mg/kg bw/day	20 mg/kg bw/day	0.002057	
Inhalation, Systemic effects, Long Term	66.754 mg/m³	130 mg/m <sup>3</sup>	0.513492	



Inhalation, Systemic effer Short term	cts, 112.147 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.862667
Combined routes, Syster effects, Long Term	nic 9.605 mg/kg bw/day	-	0.516921
Combined routes, Syster effects, Short term	nic 16.062 mg/kg bw/day	-	0.864724
Contributing scenario	controlling worker exposure: Ha	nd-mixing with intimate contact and	d only PPE available (PROC 19)
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects Long Term	s, 1.697 mg/kg bw/day	20 mg/kg bw/day	0.084857
Dermal, Systemic effects Short term	s, 1.697 mg/kg bw/day	20 mg/kg bw/day	0.084857
Inhalation, Systemic effe	cts, 40.052 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.308095
Inhalation, Systemic effe	cts, 13.351 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.102698
Combined routes, Syster effects, Long Term	mic 7.419 mg/kg bw/day	-	0.392952
Combined routes, Syster effects, Short term	mic 3.604 mg/kg bw/day	-	0.187556
SECTION 4: 1	1.10 Guidance to DU to evaluate	whether he works inside the bo	undaries set by the ES
4.1 Health			
Where other Risk Managed to at least equ	gement Measures/Operational Cor ivalent levels.	nditions are adopted, then users sh	ould ensure that risks are

#### 4.2 Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling could be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use, additional RMMs or a site-specific chemical safety assessment is required.

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4. Exposure Scenario 4: Indus SECTION 1:	strial use in cleaning agent Title of exposure scenario	
SECTION 1:		
	Industrial use in cleaning agent	
Contributing scenario controllin	g environmental exposure	
Industrial use of processing aids		ERC4
Contributing scenario controllin	g worker exposure	
Use in closed process, no likelihoo	od of exposure	PROC1
Use in closed, continuous process	with occasional controlled exposure	PROC2
Use in closed batch process (synthetic structure)	nesis or formulation)	PROC3
Use in batch and other process (sy	nthesis) where opportunity for exposure arises	PROC4
Industrial spraying		PROC7
Transfer of chemicals from / to ves	sel / large containers at non-dedicated facilities	PROC8a
Transfer of chemicals from / to ves	ssel / large containers at dedicated facilities	PROC8b
Roller application or brushing		PROC10
Treatment of articles by dipping an	d pouring	PROC13
SECTION 2:	Conditions of use	
2.1	Contributing scenario controlling environmental expo Industrial use of processing aids (ERC 8b)	osure:
As no environmental hazard was performed	identified no environmental-related exposure assessme	nt and risk characterization was
2.2	Contributing scenario controlling worker exposure: 1.2 Use in closed process, no likelihood of exposure (PRO	DC 1)
Product characteristics		
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High		
Human factors not influenced by	y risk management	
Exposed skin surface, Long Term, Exposed skin surface, Short term,		
Frequency and duration of use		
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s		
Technical conditions and measu	ires to control dispersion from source towards the wor	ker
Local exhaust ventilation: No		
Conditions and measures relate	d to personal protection, hygiene and health evaluation	n
Respiratory protection: No Dermal protection: No		
Other given operational condition	ons affecting workers exposure	
Place of use: Indoor Domain: Industrial		
2.3	Contributing scenario controlling worker exposure: 1.3 Use in closed, continuous process with occasional co	ntrolled exposure (PROC 2)
Product characteristics		
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High		



Human factors not influenced by risk management           Exposed skin surface, Shon term, Systemic effects: 480 cm²           Exposed skin surface, Shon term, Systemic effects: 480 cm²           Duration of activity: > 4 hour(s) (default)           Frequency and duration of use           Duration of activity: > 4 hour(s) (default)           Frequency and use: 5 days / week(s)           Technical conditions and measures to control dispersion from source towards the worker           Local exhaust veniliation: Yes (Effectiveness, Inhalation: 90%)           Conditions and measures related to personal protection, hygiene and health evaluation           Respiratory protection: No           Demail protection: Cloves APF 5 (Effectiveness, Dermal: 80%)           Other given operational conditions affecting workers exposure:           Place of use: Indoor           Domain industrial           2.4           Contributing scenario controlling worker exposure:           Place of use: Indoor           Dration of the used product: Liquid           Dutation of activity: > 4 hour(s) (default)           Prequency and duration of use           Exposed skin surface, Long Term, Systemic effects: 240 cm²           Exposed skin surface, Short term, Systemic effects: 240 cm²           Frequency of use: 5 days / week(s)           Technical conditions and measures to control dispersion from source towa		
Exposed skin surface. Short term, Systemic effects: 480 cm <sup>2</sup> Frequency and duration of use  Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)  Technical conditions and measures to control dispersion from source towards the worker  Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]  Conditions and measures related to personal protection, hygiene and health evaluation  Respiratory protection: No Dermal protection: Groves APF 5 [Effectiveness, Dermal: 80%]  Other given operational conditions affecting workers exposure  Place of use: Indoor Domain: Industrial  2.4  Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)  Product characteristics  Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High  Human factors not influenced by risk management  Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use Duration of activity: > 4 hour(s) (default) Prequency of use: 5 days / week(s)  Technical conditions and measures to control dispersion from source towards the worker Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]  Conditions and measures related to personal protection, hygiene and health evaluation Respiratory protection: No Dersonal of activity: > 4 hour(s) (default) Prequency of use: 5 days / week(s)  Technical conditions and measures to control dispersion from source towards the worker Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]  Conditions and measures related to personal protection, hygiene and health evaluation Respiratory protection: No Dersonal protection: No Dersonal conditions affecting worker exposure Place of use: Indoor Domain: Industrial 2.5  Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4) Product characteristics Percentage (w/w) of substance in mixture/article: 100 % Phys	Human factors not influenced b	y risk management
Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)           Technical conditions and measures to control dispersion from source towards the worker           Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]           Conditions and measures related to personal protection, hygiene and health evaluation           Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]           Other given operational conditions affecting workers exposure           Place of use: Indoor           Domain: Industrial           2.4         Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)           Product characteristics           Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High           Human factors not influenced by risk management           Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> <td>Exposed skin surface, Long Term Exposed skin surface, Short term,</td> <td>, Systemic effects: 480 cm<sup>2</sup> Systemic effects: 480 cm<sup>2</sup></td>	Exposed skin surface, Long Term Exposed skin surface, Short term,	, Systemic effects: 480 cm <sup>2</sup> Systemic effects: 480 cm <sup>2</sup>
Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure:         1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical from of the used product: Liquid         Dustiness: High         Huma factors not influenced by risk management         Exposed skin surface, Bont term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Sont term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency or use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Dermal: 80%]         Other given operational conditions affecting worker exposure:	Frequency and duration of use	
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%] <td></td> <td></td>		
Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Prequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]       Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No       Dermal: 80%]       Contributing scenario controlling worker exposure: 1.6 Use in blach and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics       Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid <td>Technical conditions and meas</td> <td>ures to control dispersion from source towards the worker</td>	Technical conditions and meas	ures to control dispersion from source towards the worker
Respiratory protection: No       Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid         Dustiness: High	Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 90%]
Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: No         Dermal protection: No         Dermal protection: Ro         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid         Dustiness: High	Conditions and measures relate	ed to personal protection, hygiene and health evaluation
Place of use: Indoor         Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 240 cm <sup>2</sup> Perceutage (w/w) of substance to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting worker exposure         Place of use: Indoor Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics       Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High		[Effectiveness, Dermal: 80%]
Domain: Industrial         2.4       Contributing scenario controlling worker exposure: 1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics       Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High	Other given operational condition	ons affecting workers exposure
1.4 Use in closed batch process (synthesis or formulation) (PROC 3)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Perceuncy and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics       Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid       Dustiness: High		
Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Percentage (w/w) of activity: > 4 hour(s) (default)         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure:         1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid         Dustiness: High	2.4	
Physical form of the used product: Liquid         Dustiness: High         Human factors not influenced by risk management         Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure: (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High	Product characteristics	
Exposed skin surface, Long Term, Systemic effects: 240 cm²         Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High	Physical form of the used product:	
Exposed skin surface, Short term, Systemic effects: 240 cm²         Frequency and duration of use         Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High	Human factors not influenced b	y risk management
Duration of activity: > 4 hour(s) (default)         Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure:         1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid Dustiness: High	Exposed skin surface, Long Term Exposed skin surface, Short term,	, Systemic effects: 240 cm <sup>2</sup> Systemic effects: 240 cm <sup>2</sup>
Frequency of use: 5 days / week(s)         Technical conditions and measures to control dispersion from source towards the worker         Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High	Frequency and duration of use	
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]         Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High		
Conditions and measures related to personal protection, hygiene and health evaluation         Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         Contributing scenario controlling worker exposure:         1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid Dustiness: High	Technical conditions and meas	ures to control dispersion from source towards the worker
Respiratory protection: No         Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High	Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 90%]
Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]         Other given operational conditions affecting workers exposure         Place of use: Indoor         Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High	Conditions and measures relate	d to personal protection, hygiene and health evaluation
Place of use: Indoor Domain: Industrial         2.5       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High		[Effectiveness, Dermal: 80%]
Domain: Industrial       Contributing scenario controlling worker exposure: 1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High	Other given operational condition	ons affecting workers exposure
1.5 Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)         Product characteristics         Percentage (w/w) of substance in mixture/article: 100 %         Physical form of the used product: Liquid Dustiness: High		
Percentage (w/w) of substance in mixture/article: 100 % Physical form of the used product: Liquid Dustiness: High	2.5	1.5 Use in batch and other process (synthesis) where opportunity for exposure arises
Physical form of the used product: Liquid Dustiness: High	Product characteristics	
Human factors not influenced by risk management	Physical form of the used product:	
	Human factors not influenced b	y risk management
Exposed skin surface, Long Term, Systemic effects: 480 cm <sup>2</sup> Exposed skin surface, Short term, Systemic effects: 480 cm <sup>2</sup>		
Frequency and duration of use	Frequency and duration of use	
Duration of activity: > 4 hour(s) (default) Frequency of use: 5 days / week(s)		
Technical conditions and measures to control dispersion from source towards the worker	Technical conditions and measure	ures to control dispersion from source towards the worker
Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]	Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 90%]

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Conditions and measures relate	d to personal protection, hygiene and health evaluation
Respiratory protection: No Dermal protection: Gloves APF 5	[Effectiveness, Dermal: 80%]
Other given operational condition	ons affecting workers exposure
Place of use: Indoor Domain: Industrial	
2.6	Contributing scenario controlling worker exposure: 1.6 Industrial spraying (PROC 7)
Product characteristics	
Percentage (w/w) of substance in Physical form of the used product Dustiness: High	
Human factors not influenced b	y risk management
Exposed skin surface, Long Term Exposed skin surface, Short term,	
Frequency and duration of use	
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s	
Technical conditions and measure	ures to control dispersion from source towards the worker
Local exhaust ventilation: No	
Conditions and measures relate	d to personal protection, hygiene and health evaluation
Respiratory protection: Yes [Effec Dermal protection: Gloves APF 5	tiveness, 90%] [Effectiveness, Dermal: 80%]
Other given operational condition	ons affecting workers exposure
Place of use: Indoor Domain: Industrial Ventilation: Good (30%)	
2.7	Contributing scenario controlling worker exposure: 1.7 Transfer of chemicals from / to vessel / large containers at non-dedicated facilities (PROC 8a)
Product characteristics	
Percentage (w/w) of substance in Physical form of the used product Dustiness: High	
Human factors not influenced b	y risk management
Exposed skin surface, Long Term Exposed skin surface, Short term,	
Frequency and duration of use	
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s	
Technical conditions and meas	ures to control dispersion from source towards the worker
Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 90%]
Conditions and measures relate	d to personal protection, hygiene and health evaluation
Respiratory protection: No Dermal protection: Gloves APF 5	Effectiveness, Dermal: 80%]
Other given operational condition	ons affecting workers exposure
Place of use: Indoor Domain: Industrial	
2.8	Contributing scenario controlling worker exposure: 1.8 Transfer of chemicals from / to vessel / large containers at dedicated facilities (PROC 8b)

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Product characteristics	
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High	
Human factors not influenced b	y risk management
Exposed skin surface, Long Term, Exposed skin surface, Short term,	
Frequency and duration of use	
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s	
Technical conditions and measure	ires to control dispersion from source towards the worker
Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 95%]
Conditions and measures relate	d to personal protection, hygiene and health evaluation
Respiratory protection: No Dermal protection: Gloves APF 5	Effectiveness, Dermal: 80%]
Other given operational condition	ons affecting workers exposure
Place of use: Indoor Domain: Industrial	
2.9	Contributing scenario controlling worker exposure: 1.9 Roller application or brushing (PROC 10)
Product characteristics	
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High	
Human factors not influenced b	y risk management
Exposed skin surface, Long Term, Exposed skin surface, Short term,	
Frequency and duration of use	
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s	
	res to control dispersion from source towards the worker
Local exhaust ventilation: Yes [Eff	ectiveness, Inhalation: 90%]
Conditions and measures relate	d to personal protection, hygiene and health evaluation
Respiratory protection: No Dermal protection: Gloves APF 5	Effectiveness, Dermal: 80%]
Other given operational condition	ons affecting workers exposure
Place of use: Indoor Domain: Industrial	
2.10	Contributing scenario controlling worker exposure: 1.10 Treatment of articles by dipping and pouring (PROC 13)
Product characteristics	
Percentage (w/w) of substance in Physical form of the used product: Dustiness: High	
Human factors not influenced b	y risk management
Exposed skin surface, Long Term, Exposed skin surface, Short term,	
Frequency and duration of use	
Duration of activity: > 4 hour(s) (de Frequency of use: 5 days / week(s	

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#### Technical conditions and measures to control dispersion from source towards the worker

Local exhaust ventilation: Yes [Effectiveness, Inhalation: 90%]

#### Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection: No

Dermal protection: Gloves APF 5 [Effectiveness, Dermal: 80%]

Other given operational conditions affecting workers exposure

Place of use: Indoor

Domain: Industrial

SECTION 3:

1.11 Exposure estimation

#### 3.1. Environment

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed

#### 3.2. Worker

Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Inhalation, Systemic effects, Long Term	0.013351 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.000103
Inhalation, Systemic effects, Short term	0.053403 mg/m³	130 mg/m³	0.000411
Dermal, Systemic effects, Long Term	0.034286 mg/kg bw/day	20 mg/kg bw/day	0.001714
Dermal, Systemic effects, Short term	0.034286 mg/kg bw/day	20 mg/kg bw/day	0.001714
Combined routes, Systemic effects, Long Term	0.036193 mg/kg bw/day	-	0.001817
Combined routes, Systemic effects, Short term	0.041915 mg/kg bw/day	-	0.002125
Contributing scenario contro (PROC 2)	Illing worker exposure: Use in clo	osed, continuous process wit	th occasional controlled exposure
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	0.274286 mg/kg bw/day	20 mg/kg bw/day	0.013174
Dermal, Systemic effects, Short term	0.274286 mg/kg bw/day	20 mg/kg bw/day	0.013174
Inhalation, Systemic effects, Long Term	3.338 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.025675
Inhalation, Systemic effects, Short term	13.351 mg/m <sup>3</sup>	130 mg/m³	0.102698
Combined routes, Systemic effects, Long Term	0.7511 mg/kg bw/day	-	0.039389
Combined routes, Systemic effects, Short term	2.182 mg/kg bw/day	-	0.116413
Contributing scenario contro	Iling worker exposure: Use in clo	osed batch process (synthes	is or formulation) (PROC 3)
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)



$\sim$			
Inhalation, Systemic effects, Short term	26.702 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.205397
Combined routes, Systemic effects, Long Term	1.091 mg/kg bw/day	-	0.058206
Combined routes, Systemic effects, Short term	3.952 mg/kg bw/day	-	0.212254
Contributing scenario contro exposure arises (PROC 4)	olling worker exposure: Use in bat	ch and other process (synthe	esis) where opportunity for
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	1.371 mg/kg bw/day	20 mg/kg bw/day	0.0068571
Dermal, Systemic effects, Short term	1.371 mg/kg bw/day	20 mg/kg bw/day	0.0068571
Inhalation, Systemic effects, Long Term	13.351 mg/m³	130 mg/m <sup>3</sup>	0.102698
Inhalation, Systemic effects, Short term	53.403 mg/m <sup>3</sup>	130 mg/m³	0.410794
Combined routes, Systemic effects, Long Term	3.279 mg/kg bw/day	-	0.17127
Combined routes, Systemic effects, Short term	9 mg/kg bw/day	-	0.479365
Contributing scenario contro	olling worker exposure: Industrial	spraying (PROC 7)	
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	2.143 mg/kg bw/day	20 mg/kg bw/day	0.107143
Dermal, Systemic effects, Short term	2.143 mg/kg bw/day	20 mg/kg bw/day	0.107143
Inhalation, Systemic effects, Long Term	19.14 mg/m <sup>3</sup>	130 mg/m³	0.147231
Inhalation, Systemic effects, Short term	19.14 mg/m <sup>3</sup>	130 mg/m³	0.147231
Combined routes, Systemic effects, Long Term	4.877 mg/kg bw/day	-	0.254374
Combined routes, Systemic effects, Short term	4.877 mg/kg bw/day	-	0.254374
Contributing scenario contro dedicated facilities (PROC 8a)	olling worker exposure: Transfer o	f chemicals from / to vessel /	large containers at non-
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Dermal, Systemic effects, Short term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Inhalation, Systemic effects, Long Term	33.377 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.256746
Inhalation, Systemic effects, Short term	66.754 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>	0.513492
Combined routes, Systemic effects, Long Term	7.511 mg/kg bw/day	-	0.393889
Combined routes, Systemic effects, Short term	12.279 mg/kg bw/day	-	0.650635
Contributing scenario contro facilities (PROC 8b)	olling worker exposure: Transfer o	f chemicals from / to vessel /	large containers at dedicated
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)



Dermal, Systemic effects, Long Term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Dermal, Systemic effects, Short term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Inhalation, Systemic effect Long Term	s, 10.013 mg/m³	130 mg/m <sup>3</sup>	0.077024
Inhalation, Systemic effect Short term	s, 20.026 mg/m³	130 mg/m <sup>3</sup>	0.154048
Combined routes, Systemi effects, Long Term	c 4.173 mg/kg bw/day	-	0.214167
Combined routes, Systemi effects, Short term	c 5.604 mg/kg bw/day	-	0.29119
Contributing scenario co	ntrolling worker exposure: Roller a	pplication or brushing (PROC	10)
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	4.389 mg/kg bw/day	20 mg/kg bw/day	0.219429
Dermal, Systemic effects, Short term	4.389 mg/kg bw/day	20 mg/kg bw/day	0.219429
Inhalation, Systemic effect Long Term	s, 26.702 mg/m³	130 mg/m <sup>3</sup>	0.205397
Inhalation, Systemic effect Short term	s, 53.403 mg/m³	130 mg/m <sup>3</sup>	0.410794
Combined routes, Systemi effects, Long Term	c 8.203 mg/kg bw/day	-	0.424825
Combined routes, Systemi effects, Short term	c 12.018 mg/kg bw/day	-	0.630222
Contributing scenario co	ntrolling worker exposure: Treatme	ent of articles by dipping and p	oouring (PROC 13)
Exposure route	Exposure estimate - Worker	DNEL	Risk quantification (RCR)
Dermal, Systemic effects, Long Term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Dermal, Systemic effects, Short term	2.743 mg/kg bw/day	20 mg/kg bw/day	0.137143
Inhalation, Systemic effect Long Term	s, 33.377 mg/m³	130 mg/m <sup>3</sup>	0.256746
Inhalation, Systemic effect Short term	s, 66.754 mg/m³	130 mg/m <sup>3</sup>	0.513492
Combined routes, Systemi effects, Long Term	c 7.511 mg/kg bw/day	-	0.393889
Combined routes, Systemi effects, Short term	c 12.279 mg/kg bw/day	-	0.650635
SECTION 4: 1.	12 Guidance to DU to evaluate whe	ther he works inside the bo	undaries set by the ES
4.1 Health			
Where other Risk Manage managed to at least equiv	ment Measures/Operational Conditio alent levels.	ns are adopted, then users sh	nould ensure that risks are

#### 4.2 Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling could be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use, additional RMMs or a site-specific chemical safety assessment is required.