

Annex to the extended Safety Data Sheet (eSDS)

Version:2.0

Annex for ethyl 2-cyanoacrylate

Content

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Exposure Scenario I.

Adhesives and sealants industrial use, Manufacture of substance

I .1 List of use descriptors

Sector(s) of use	SU3: Industrial uses: Uses of substances as such or in preparations at industrial sites
Product categories [PC]:	not relevant.
Name of contributing environmental scenario and corresponding ERC:	ERC1: Manufacture of the substance
List of names of contributing worker scenarios and corresponding PROCs:	<p>PROC1: Use in closed process, no likelihood of exposure</p> <p>PROC2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC3: Use in closed batch process (synthesis or formulation)</p> <p>PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC5: Mixing or blending in batch processes</p> <p>PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)</p>

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I.2.1 Contributing exposure scenario controlling environmental exposure

Environmental Release Categories [ERC]:	ERC1: Manufacture of the substance
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
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Physical state	not relevant
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Amounts used

This information is not available.

Frequency and duration of use

Batch process:	not relevant
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Continuous process:	not relevant
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Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	18.000
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Local freshwater dilution factor	10
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Local marine water dilution factor	100
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Other given operational conditions affecting environmental exposure

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air	No specific measures identified., Air emission will be precipitated through air humidity.
Soil	No specific measures identified.
Water	No specific measures identified., Due to the precipitation in water, no soluble parts will occur.
Sediment:	-
Remarks:	No data available Testing technically not feasible. In presence of moisture, ethyl 2-cyanoacrylate polymerizes within seconds.

I.2.2 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC1: Use in closed process, no likelihood of exposure
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC1, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC1, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC1, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC1, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC1, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC1, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC1, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC1, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

I.2.3 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC2: Use in closed, continuous process with occasional controlled exposure
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC2, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC2, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC2, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC2, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC2, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC2, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC2, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC2, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

I.2.4 Contributing exposure scenario controlling worker exposure

Process Categories: PROC3: Use in closed batch process (synthesis or formulation)

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet

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

Industrial, PROC3, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC3, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC3, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC3, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC3, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC3, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC3, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC3, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

I.2.5 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC4, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC4, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC4, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC4, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC4, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC4, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC4, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC4, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

I.2.6 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC5: Mixing or blending in batch processes
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet

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

Industrial, PROC5, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC5, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC5, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC5, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC5, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC5, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC5, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC5, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

I.2.7 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC8b, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC8b, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC8b, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC8b, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC8b, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC8b, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC8b, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC8b, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

I.2.8 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC9, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC9, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC9, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC9, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC9, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC9, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC9, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC9, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

I.3 Exposure estimation

Environment:

Adhesives and sealants industrial use, Manufacture of substance:

none

Health:

Adhesives and sealants industrial use, Manufacture of substance:

PROC1: Use in closed process, no likelihood of exposure:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	0,0343 mg/kg bw/day	0,000034	ECETOC TRA	< 15 min
Inhalation, systemic, long term	0,0052 mg/m ³	0,000595	ECETOC TRA	< 15 min

Dermal, systemic, long term	0,0343 mg/kg bw/day	0,000034	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	0,0104 mg/m ³	0,00119	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	0,0343 mg/kg bw/day	0,000034	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	0,0313 mg/m ³	0,003571	ECETOC TRA	< 4 hours
Dermal, systemic, long term	0,0343 mg/kg bw/day	0,000034	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,0052 mg/m ³	0,000595	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC2: Use in closed, continuous process with occasional controlled exposure:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	1,371 mg/kg bw/day	0,001371	ECETOC TRA	< 15 min
Inhalation, systemic, long term	0,5208 mg/m ³	0,059524	ECETOC TRA	< 15 min
Dermal, systemic, long term	1,371 mg/kg bw/day	0,001371	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	1,042 mg/m ³	0,119048	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	1,371 mg/kg bw/day	0,001371	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	0,3125 mg/m ³	0,035714	ECETOC TRA	< 4 hours
Dermal, systemic, long term	1,371 mg/kg bw/day	0,001371	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,0521 mg/m ³	0,005952	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC3: Use in closed batch process (synthesis or formulation):

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	0,6857 mg/kg bw/day	0,000686	ECETOC TRA	< 15 min
Inhalation, systemic, long term	1,563 mg/m ³	0,178571	ECETOC TRA	< 15 min
Dermal, systemic, long term	0,6857 mg/kg bw/day	0,000686	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	3,125 mg/m ³	0,357143	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	0,6857 mg/kg bw/day	0,000686	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	0,9375 mg/m ³	0,107143	ECETOC TRA	< 4 hours
Dermal, systemic, long term	0,6857 mg/kg bw/day	0,000686	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,1563 mg/m ³	0,017857	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 15 min

Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	1,562 mg/m ³	0,178571	ECETOC TRA	< 4 hours
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,2604 mg/m ³	0,029762	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC5: Mixing or blending in batch processes:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 15 min
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	1,562 mg/m ³	0,178571	ECETOC TRA	< 4 hours
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,2604 mg/m ³	0,029762	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 15 min
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	0,7813 mg/m ³	0,089286	ECETOC TRA	< 4 hours
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,1302 mg/m ³	0,014881	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:**PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing):**

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 15 min
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	1,562 mg/m ³	0,178571	ECETOC TRA	< 4 hours
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,260 mg/m ³	0,029762	ECETOC TRA	> 4 hours

I.4 Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For further information, please also consult the Internet site: Downstream Users
<https://www.echa.europa.eu/web/guest/guidance-documents/guidance-on-reach>

Exposure Scenario II.**Adhesives and sealants industrial use, Formulation & (re)packing of substances and mixtures****II .1 List of use descriptors**

Sector(s) of use	SU3: Industrial uses: Uses of substances as such or in preparations at industrial sites
Product categories [PC]:	not relevant.
Name of contributing environmental scenario and corresponding ERC:	ERC2: Formulation into mixture (mixtures)
List of names of contributing worker scenarios and corresponding PROCs:	<p>PROC3: Use in closed batch process (synthesis or formulation)</p> <p>PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC5: Mixing or blending in batch processes</p> <p>PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)</p>

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II.2.1 Contributing exposure scenario controlling environmental exposure

Environmental Release Categories [ERC]:	ERC2: Formulation into mixture (mixtures)
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
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Physical state	not relevant
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Amounts used

This information is not available.

Frequency and duration of use

Batch process:	not relevant
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Continuous process:	not relevant
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Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	18.000
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Local freshwater dilution factor	10
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Local marine water dilution factor	100
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Other given operational conditions affecting environmental exposure

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air	No specific measures identified., Air emission will be precipitated through air humidity.
Soil	No specific measures identified.
Water	No specific measures identified., Due to the precipitation in water, no soluble parts will occur.
Sediment:	-
Remarks:	No data available Testing technically not feasible. In presence of moisture, ethyl 2-cyanoacrylate polymerizes within seconds.

II.2.2 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC3: Use in closed batch process (synthesis or formulation)
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC3, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC3, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC3, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC3, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC3, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC3, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC3, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC3, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

II.2.3 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC4, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC4, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC4, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC4, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC4, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC4, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC4, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC4, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

II.2.4 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC5: Mixing or blending in batch processes
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet

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

Industrial, PROC5, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC5, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC5, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC5, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC5, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC5, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC5, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC5, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

II.2.5 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC8b, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC8b, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC8b, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC8b, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC8b, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC8b, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC8b, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC8b, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

II.2.6 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC9, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC9, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC9, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC9, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC9, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC9, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC9, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC9, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

II.3 Exposure estimation

Environment:

Adhesives and sealants industrial use, Formulation into mixture (mixtures):

none

Health:

Adhesives and sealants industrial use, Manufacture of substance:

PROC3: Use in closed batch process (synthesis or formulation):

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	0,6857 mg/kg bw/day	0,000686	ECETOC TRA	< 15 min
Inhalation, systemic, long term	1,563 mg/m ³	0,178571	ECETOC TRA	< 15 min

Dermal, systemic, long term	0,6857 mg/kg bw/day	0,000686	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	3,125 mg/m ³	0,357143	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	0,6857 mg/kg bw/day	0,000686	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	0,9375 mg/m ³	0,107143	ECETOC TRA	< 4 hours
Dermal, systemic, long term	0,6857 mg/kg bw/day	0,000686	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,1563 mg/m ³	0,017857	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 15 min
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	1,562 mg/m ³	0,178571	ECETOC TRA	< 4 hours
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,2604 mg/m ³	0,029762	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC5: Mixing or blending in batch processes:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 15 min
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	1,562 mg/m ³	0,178571	ECETOC TRA	< 4 hours
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,2604 mg/m ³	0,029762	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 15 min

Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	0,7813 mg/m ³	0,089286	ECETOC TRA	< 4 hours
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,1302 mg/m ³	0,014881	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing):

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 15 min
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	1,562 mg/m ³	0,178571	ECETOC TRA	< 4 hours
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,260 mg/m ³	0,029762	ECETOC TRA	> 4 hours

II.4 Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For further information, please also consult the Internet site: Downstream Users
<https://www.echa.europa.eu/web/guest/guidance-documents/guidance-on-reach>

Exposure Scenario III.

Adhesives and sealants industrial use, Industrial application of coatings and inks

III .1 List of use descriptors

Sector(s) of use	SU3: Industrial uses: Uses of substances as such or in preparations at industrial sites
Product categories [PC]:	not relevant.
Name of contributing environmental scenario and corresponding ERC:	ERC5: Industrial use resulting in inclusion into or onto a matrix

List of names of contributing worker scenarios and corresponding PROCs:	<p>PROC5: Mixing or blending in batch processes</p> <p>PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)</p> <p>PROC10: Roller application or brushing</p> <p>PROC14: Production of preparations or articles by tableting, compression, extrusion, pelettisation</p>
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III.2.1 Contributing exposure scenario controlling environmental exposure

Environmental Release Categories [ERC]:	ERC5: Industrial use resulting in inclusion into or onto a matrix
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
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Physical state	not relevant
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Amounts used

This information is not available.

Frequency and duration of use

Batch process:	not relevant
Continuous process:	not relevant

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	18.000
Local freshwater dilution factor	10
Local marine water dilution factor	100

Other given operational conditions affecting environmental exposure

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air	No specific measures identified., Air emission will be precipitated through air humidity.
Soil	No specific measures identified.
Water	No specific measures identified., Due to the precipitation in water, no soluble parts will occur.
Sediment:	-
Remarks:	No data available Testing technically not feasible. In presence of moisture, ethyl 2-cyanoacrylate polymerizes within seconds.

III.2.2 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC5: Mixing or blending in batch processes
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet

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

Industrial, PROC5, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC5, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC5, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC5, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC5, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC5, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC5, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC5, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

III.2.3 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
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Physical form of the product:	liquid
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Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC8b, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC8b, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC8b, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC8b, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC8b, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC8b, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC8b, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC8b, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

III.2.4 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC9, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC9, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC9, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC9, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC9, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC9, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC9, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC9, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

III.2.5 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC10: Roller application or brushing
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet

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

Industrial, PROC10, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC10, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC10, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC10, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC10, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC10, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC10, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC10, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

III.2.6 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC14: Production of preparations or articles by tableting, compression, extrusion, pelettisation
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Industrial, PROC14, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC14, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC14, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Industrial, PROC14, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Industrial, PROC14, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC14, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC14, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Industrial, PROC14, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

III.3 Exposure estimation

Environment:

Adhesives and sealants industrial use:

none

Health:

Adhesives and sealants industrial use, Manufacture of substance:

PROC5: Mixing or blending in batch processes:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 15 min
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min

Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	1,562 mg/m ³	0,178571	ECETOC TRA	< 4 hours
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,2604 mg/m ³	0,029762	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 15 min
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	0,7813 mg/m ³	0,089286	ECETOC TRA	< 4 hours
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,1302 mg/m ³	0,014881	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use, Manufacture of substance:

PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing):

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 15 min
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	< 15 min
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	1,562 mg/m ³	0,178571	ECETOC TRA	< 4 hours
Dermal, systemic, long term	6,857 mg/kg bw/day	0,006857	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,260 mg/m ³	0,029762	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use:

PROC10: Roller application or brushing:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	27,429 mg/kg	0,027429	ECETOC TRA	< 15 min

term	bw/day			
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	< 15 min
Dermal, systemic, long term	27,429 mg/kg bw/day	0,027429	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	10,417 mg/m ³	1,190	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	27,429 mg/kg bw/day	0,027429	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	3,125 mg/m ³	0,357143	ECETOC TRA	< 4 hours
Dermal, systemic, long term	27,429 mg/kg bw/day	0,027429	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,5208 mg/m ³	0,059524	ECETOC TRA	> 4 hours

Adhesives and sealants industrial use:

PROC14: Production of preparations or articles by tableting, compression, extrusion, pelettisation:

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	141,429 mg/kg bw/day	0,141429	ECETOC TRA	< 15 min
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	< 15 min
Dermal, systemic, long term	141,429 mg/kg bw/day	0,141429	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	10.417 mg/m ³	1,190	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	141,429 mg/kg bw/day	0,141429	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	3,125 mg/m ³	0,357143	ECETOC TRA	< 4 hours
Dermal, systemic, long term	141,429 mg/kg bw/day	0,141429	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,5208 mg/m ³	0,059524	ECETOC TRA	> 4 hours

III.4 Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For further information, please also consult the Internet site: Downstream Users
<https://www.echa.europa.eu/web/guest/guidance-documents/guidance-on-reach>

Exposure Scenario IV.

Adhesives and sealants professional use, Professional use

IV .1 List of use descriptors

Sector(s) of use	SU22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Product categories [PC]:	not relevant.
Name of contributing environmental scenario and corresponding ERC:	ERC8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix

	ERC8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix
--	---

List of names of contributing worker scenarios and corresponding PROCs:	<p>PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC10: Roller application or brushing</p> <p>PROC14: Production of preparations or articles by tableting, compression, extrusion, pelettisation</p>
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IV.2.1 Contributing exposure scenario controlling environmental exposure

Environmental Release Categories [ERC]:	<p>ERC8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix</p> <p>ERC8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix</p>
--	--

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
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Physical state	not relevant
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Amounts used

This information is not available.

Frequency and duration of use

Batch process:	not relevant
Continuous process:	not relevant

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	18.000
Local freshwater dilution factor	10
Local marine water dilution factor	100

Other given operational conditions affecting environmental exposure

Risk management measures (RMM)

Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air	No specific measures identified., Air emission will be precipitated through air humidity.
Soil	No specific measures identified.
Water	No specific measures identified., Due to the precipitation in water, no soluble parts will occur.
Sediment:	-
Remarks:	No data available Testing technically not feasible. In presence of moisture, ethyl 2-cyanoacrylate polymerizes within seconds.

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
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Physical state	not relevant
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Amounts used

This information is not available.

Frequency and duration of use

Batch process:	not relevant
Continuous process:	not relevant

Environment factors not influenced by risk management

Flow rate of receiving surface water (m³/d):	18.000
Local freshwater dilution factor	10
Local marine water dilution factor	100

Other given operational conditions affecting environmental exposure
Risk management measures (RMM)
Technical conditions and measures at process level (source) to prevent release

See chapter 8 of the safety data sheet (Environmental exposure controls).

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Air	No specific measures identified., Air emission will be precipitated through air humidity.
Soil	No specific measures identified.
Water	No specific measures identified., Due to the precipitation in water, no soluble parts will occur.
Sediment:	-
Remarks:	No data available Testing technically not feasible. In presence of moisture, ethyl 2-cyanoacrylate polymerizes within seconds.

IV.2.2 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
----------------------------	--

Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
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Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet

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

Professional, PROC8b, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Professional, PROC8b, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Professional, PROC8b, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Professional, PROC8b, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Professional, PROC8b, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Professional, PROC8b, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Professional, PROC8b, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Professional, PROC8b, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

IV.2.3 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC10: Roller application or brushing
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
----------------------------	--------------

Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet

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

Professional, PROC10, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Professional, PROC10, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Professional, PROC10, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Professional, PROC10, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Professional, PROC10, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Professional, PROC10, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Professional, PROC10, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Professional, PROC10, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

IV.2.4 Contributing exposure scenario controlling worker exposure

Process Categories:	PROC14: Production of preparations or articles by tableting, compression, extrusion, pelettisation
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Product characteristics

Concentration of the substance in a mixture:	Covers percentage substance in the product up to 100 %.
Physical form of the product:	liquid
Vapour pressure:	101,300000 kPa
Process temperature:	20,00 °C

Amounts used

Annual site tonnage	1.243.000 kg
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Frequency and duration of use

	Use duration:	Frequency of use:	Remarks
Exposure duration	< 15,00 min		
Exposure duration	15,00 min - 1,00 h		
Exposure duration	< 4,00 h		
Exposure duration	> 4,00 h		

Human factors not influenced by risk management

exposed skin surface, Assumes that potential dermal contact is limited to fingertips.	Avoid using without gloves.
Occasionally eyelids are affected.:	Avoid direct eye contact with product, also via contamination on hands.

Other given operational conditions affecting workers exposure

Area of use	Room size:	Temperature :	Ventilation rate	Remarks
Indoor use	not relevant.	20,00 °C	not relevant.	Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Risk management measures (RMM)**Technical conditions and measures at process level (source) to prevent release**

See chapter 7 of the safety data sheet
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Technical conditions and measures to control dispersion from source towards the worker

Professional, PROC14, < 15 min:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Professional, PROC14, 15 min - 1 hour:	Worker - combined, long-term - systemic: Good general ventilation (3-5 air changes per hour), Assumes a good basic standard of occupational hygiene is implemented
Professional, PROC14, < 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented
Professional, PROC14, > 4 hours:	Worker - combined, long-term - systemic: with local exhaust ventilation, Assumes a good basic standard of occupational hygiene is implemented

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

Professional, PROC14, < 15 min:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Professional, PROC14, 15 min - 1 hour:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Professional, PROC14, < 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection is not necessary if room is well ventilated.
Professional, PROC14, > 4 hours:	Worker - combined, long-term - systemic: Wear suitable gloves (tested to EN374) and eye protection., Respiratory protection required., Suitable breathing mask or respirator with filter type: A (EN 14387) recommended. Effectiveness: 90,0 %.

See chapter 8 of the safety data sheet (Personal protection equipment)

Additional good practice advice beyond the REACH CSA

Assumes a good basic standard of occupational hygiene is implemented Use suitable eye protection and gloves. For further specification, refer to section 8 of the SDS.

IV.3 Exposure estimation

Environment:

Adhesives and sealants professional use:

none

Adhesives and sealants professional use:

none

Health:**Adhesives and sealants professional use, Professional use:****PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities:**

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 15 min
Inhalation, systemic, long term	5,208 mg/m ³	0,595238	ECETOC TRA	< 15 min
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	10,417 mg/m ³	1,190	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	3,125 mg/m ³	0,357143	ECETOC TRA	< 4 hours
Dermal, systemic, long term	13,714 mg/kg bw/day	0,013714	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	0,5208 mg/m ³	0,059524	ECETOC TRA	> 4 hours

Adhesives and sealants professional use, Professional use:**PROC10: Roller application or brushing:**

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	27,429 mg/kg bw/day	0,027429	ECETOC TRA	< 15 min
Inhalation, systemic, long term	13,021 mg/m ³	1,488	ECETOC TRA	< 15 min
Dermal, systemic, long term	27,429 mg/kg bw/day	0,027429	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	26,042 mg/m ³	2,976	ECETOC TRA	15 min - 1 hour
Dermal, systemic, long term	27,429 mg/kg bw/day	0,027429	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	15,625 mg/m ³	1,786	ECETOC TRA	< 4 hours
Dermal, systemic, long term	27,429 mg/kg bw/day	0,027429	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	1,9 mg/m ³	0,21	ART	1 hour Without local exhaust ventilation
Inhalation, systemic, long term	3,9 mg/m ³	0,42	ART	4 hours with local exhaust ventilation

Adhesives and sealants professional use, Professional use:**PROC14: Production of preparations or articles by tableting, compression, extrusion, pelettisation:**

	Exposure level	RCR	Method	Remarks
Dermal, systemic, long term	141,429 mg/kg bw/day	0,141429	ECETOC TRA	< 15 min
Inhalation, systemic, long term	13,021 mg/m ³	1,488	ECETOC TRA	< 15 min
Dermal, systemic, long term	141,429 mg/kg bw/day	0,141429	ECETOC TRA	15 min - 1 hour
Inhalation, systemic, long term	26,042 mg/m ³	2,976	ECETOC TRA	15 min - 1 hour

Dermal, systemic, long term	141,429 mg/kg bw/day	0,141429	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	15,625 mg/m ³	1,786	ECETOC TRA	< 4 hours
Inhalation, systemic, long term	1,9 mg/m ³	0,21	ART	1 hour Without local exhaust ventilation
Inhalation, systemic, long term	3,9 mg/m ³	0,42	ART	4 hours with local exhaust ventilation
Dermal, systemic, long term	141,429 mg/kg bw/day	0,141429	ECETOC TRA	> 4 hours
Inhalation, systemic, long term	2,604 mg/m ³	0,297619	ECETOC TRA	> 4 hours

IV.4 Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

For further information, please also consult the Internet site: Downstream Users
<https://www.echa.europa.eu/web/guest/guidance-documents/guidance-on-reach>

Exposure Scenario VI.

Adhesives and sealants consumer use

V .1 List of use descriptors

Sector(s) of use	SU21: Consumer uses: Private households (= general public = consumers)
Product categories [PC]:	PC1: Adhesives, sealants
Name of contributing environmental scenario and corresponding ERC:	<u>Adhesives and sealants consumer use:</u> ERC8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix
List of names of contributing consumer scenarios and corresponding PC:	<u>Adhesives and sealants consumer use:</u> PC1: Adhesives, sealants

V.2.1 Contributing exposure scenario controlling environmental exposure

Environmental Release Categories [ERC]:	<u>Adhesives and sealants consumer use:</u> ERC8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix
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V.3 Exposure estimation and reference to its source**Environment:****Adhesives and sealants consumer use:**

none

Adhesives and sealants consumer use:

none

Health:**V.4 Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES**

For further information, please also consult the Internet site: Downstream Users
<https://www.echa.europa.eu/web/guest/guidance-documents/guidance-on-reach>