We create chemistry

Safety data sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

3-METHYLBUTANOL-1

Chemical name: 3-methylbutan-1-ol
CAS Number: 123-51-3

REACH registration number: 01-2119493725-26-0000

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: process chemical, solvent(s)

For the detailed identified uses of the product see appendix of the safety data sheet.

1.3. Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY

Contact address:
BASF Ireland Ltd.
Inchera Industrial Estate, Little Island
County Cork, REPUBLIC Of IRELAND

Telephone: +353 21 451-7100
E-mail address: product-safety-north@basf.com

1.4. Emergency telephone number

For products classified as hazardous in accordance with CLP:
National Poisons Information Centre, Beaumont Hospital, Dublin 9
Emergency medical information: 8am-10pm (seven days)
Tel.: 01 8092566
International emergency number:
Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3
Acute Tox. 4 (Inhalation - vapour)
Skin Corr./Irrit. 2
Eye Dam./Irrit. 1
STOT SE 3 (irritating to respiratory system)

H226, H318, H315, H332, H335

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

Globally Harmonized System, EU (GHS)

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye/face protection.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist or vapour.
P243	Take action to prevent static discharges.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P264	Wash with plenty of water and soap thoroughly after handling.
P240	Ground and bond container and receiving equipment.
P242	Use non-sparking tools.

Precautionary Statements (Response):

P310	Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use… to extinguish.

Precautionary Statements (Storage):

P233	Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.

Labeling of special preparations (GHS):
EUH066: Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

See section 12 - Results of PBT and vPvB assessment.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical nature

3-Methylbutan-1-ol
CAS Number: 123-51-3
EC-Number: 204-633-5

Hazardous ingredients (GHS)
according to Regulation (EC) No. 1272/2008

1-pentanol

Content (W/W): <= 1 %	Flam. Liq. 3
CAS Number: 71-41-0	Acute Tox. 4 (Inhalation - vapour)
EC-Number: 200-752-1	Skin Corr./Irrit. 2
INDEX-Number: 603-200-00-1	Eye Dam./Irrit. 1
	STOT SE 3 (irr. to respiratory syst.)
	H226, H318, H315, H332, H335

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

3.2. Mixtures

Not applicable

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:
Wash thoroughly with soap and water. Consult a doctor if skin irritation persists.

On contact with eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Rinse mouth immediately and then drink plenty of water, seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

water spray, alcohol-resistant foam, dry powder, carbon dioxide

5.2. Special hazards arising from the substance or mixture

The product is combustible. Cool endangered containers with water-spray.

5.3. Advice for fire-fighters

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Breathing protection required. Avoid contact with skin and eyes.

6.2. Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material. Dispose of contaminated material as prescribed.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:
Take precautionary measures against static discharges. Sources of ignition should be kept well clear.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

7.3. Specific end use(s)

See exposure scenario(s) in the attachment to this safety data sheet.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

123-51-3: 3-Methylbutan-1-ol
TWA value 360 mg/m3 ; 100 ppm (OEL (IE))
STEL value 450 mg/m3 ; 125 ppm (OEL (IE))

PNEC
freshwater: 0.12 mg/l

marine water: 0.012 mg/l

intermittent release: 2.55 mg/l

sediment (freshwater): 0.496 mg/kg

sediment (marine water): 0.0496 mg/kg

soil: 1.0681 mg/kg

STP: 37 mg/l

DNEL
worker:
Long-term exposure - systemic and local effects, Inhalation: 73.16 mg/m3

worker:
Short-term exposure - systemic and local effects, Inhalation: 292 mg/m3

consumer:
Long-term exposure - systemic and local effects, Inhalation: 15.4 mg/m3

consumer:
Short-term exposure - systemic and local effects, Inhalation: 256.4 mg/m3

consumer:
Long-term exposure- systemic effects, oral: 25 mg/kg

8.2. Exposure controls

Personal protective equipment

Respiratory protection:
Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:
Chemical resistant protective gloves (EN 374)
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):
nitrile rubber (NBR) - 0.4 mm coating thickness
Manufacturer's directions for use should be observed because of great diversity of types.
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
Avoid contact with the skin, eyes and clothing. Avoid inhalation of vapour. Wearing of closed work clothing is required additionally to the stated personal protection equipment.

Environmental exposure controls
For information regarding environmental exposure controls, see Section 6.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	liquid	
Colour:	colourless	
Odour:	offensive	
Odour threshold:	not determined	
pH value:	6.5	(internal method)
glass transition temperature:	-147 °C	(measured)
Boiling point:	130.7 °C (1,013.25 hPa)	(measured)
Flash point:	43.5 °C	(DIN EN ISO 13736, closed cup)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability:	Flammable.	(other)

Lower explosion limit:	1.0 %(V) (37.4 °C) For liquids not relevant for classification and labelling.	(air)
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Ignition temperature:	335 °C	(DIN 51794)
Vapour pressure:	3 hPa (20 °C) dynamic	(measured)
Density:	0.8080 g/cm3 (20 °C)	(DIN 53217-5)
Relative vapour density (air):	not determined	
Solubility in water:	Literature data. 2.64 %(m) (19.8 °C)	(other)
Solubility (qualitative) solvent(s):	organic solvents soluble	
Partitioning coefficient n-octanol/water (log Kow):	1.35 (23 °C; pH value: approx. 6.5)	(measured)
Self ignition:	not self-igniting	Test type: Spontaneous self-ignition at room-temperature. (Method: other)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	4.3 mPa.s (20 °C)	
Viscosity, kinematic:	5.36 mm2/s (20 °C)	(DIN 51562)
Explosion hazard:	Based on the chemical structure there is no indicating of explosive properties.	(other)
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	(other)

9.2. Other information

pKA:	The substance does not dissociate.	
Adsorption/water - soil:	KOC: 5.32; log KOC: 0.73	(calculated)
Surface tension:	Based on chemical structure, surface activity is not to be expected.	
Grain size distribution:	The substance / product is marketed or used in a non solid or granular form.	
Molar mass:	88.15 g/mol	

SECTION 10: Stability and Reactivity

10.1. Reactivity

Corrosion to metals:	No corrosive effect on metal.	
Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.

10.2. Chemical stability
The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions
No hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to avoid
No special precautions other than good housekeeping of chemicals.

10.5. Incompatible materials

Substances to avoid:
strong oxidizing agents

10.6. Hazardous decomposition products

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single ingestion. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard. Of low toxicity after short-term skin contact.

Experimental/calculated data:
LD50 rat (oral): > 5,000 mg/kg (BASF-Test)

LD50 rabbit (dermal): approx. 3,216 mg/kg (similar to OECD guideline 402)

Irritation

Assessment of irritating effects:
Skin contact causes irritation. Eye contact causes irritation.

Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant. (Draize test)

Serious eye damage/irritation rabbit: Irritant. (Draize test)

Respiratory/Skin sensitization

Assessment of sensitization:
Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:
Guinea pig maximization test guinea pig: Non-sensitizing. (similar to OECD guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:
The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals.

Carcinogenicity

Assessment of carcinogenicity:
A long-term carcinogenity study which does not meet the current requirements did not show a carcinogenic effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity

Assessment of reproduction toxicity:
The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422). Repeated oral uptake of the substance did not cause damage to the reproductive organs.

Developmental toxicity

Assessment of teratogenicity:
No indications of a developmental toxic / teratogenic effect were seen in animal studies. No adverse effects on embryonic or fetal development were observed.

Specific target organ toxicity (single exposure)

Assessment of STOT single:
Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
No adverse effects were observed after repeated oral exposure in animal studies. No adverse effects were observed after repeated inhalative exposure in animal studies.

Aspiration hazard

not applicable

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:
LC50 (96 h) > 120 mg/l, Salmo gairdneri, syn. O. mykiss (OECD 203; ISO 7346; 84/449/EEC, C.1, static)
Nominal concentration.

Aquatic invertebrates:
EC50 (48 h) > 100 mg/l, Daphnia magna (DIN 38412 Part 11, static)
Nominal concentration.

Aquatic plants:
EC50 (72 h) > 100 mg/l (growth rate), Scenedesmus subspicatus (DIN 38412 Part 9, static)
Nominal concentration.

Microorganisms/Effect on activated sludge:
EC10 (3 h) 370 mg/l, activated sludge, domestic (OECD Guideline 209, aerobic)
Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity to fish:
No data available.

Chronic toxicity to aquatic invertebrates:
No data available.

Assessment of terrestrial toxicity:
No data available.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):
Readily biodegradable (according to OECD criteria).

Elimination information:
84 % BOD of COD (27 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

Assessment of stability in water:
According to structural properties, hydrolysis is not expected/probable.

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential:
No data available.

12.4. Mobility in soil

Assessment transport between environmental compartments:
Volatility: The substance will slowly evaporate into the atmosphere from the water surface.
Adsorption in soil: Adsorption to solid soil phase is not expected.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative). Self classification

12.6. Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7. Additional information

Adsorbable organically-bound halogen (AOX):
This product contains no organically-bound halogen.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

SECTION 14: Transport Information

Land transport

ADR

UN number	UN1105
UN proper shipping name:	PENTANOLS (contains 3-METHYLBUTAN-1-OL)
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	Tunnel code: D/E

RID

UN number	UN1105
UN proper shipping name:	PENTANOLS (contains 3-METHYLBUTAN-1-OL)
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Inland waterway transport

ADN

UN number	UN1105
UN proper shipping name:	PENTANOLS (contains 3-METHYLBUTAN-1-OL)
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Transport in inland waterway vessel
Not evaluated

Sea transport

IMDG

UN number:	UN 1105
UN proper shipping name:	PENTANOLS (contains 3-METHYLBUTAN-1-OL)
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
	Marine pollutant: NO

Special precautions for user:	None known

Air transport

IATA/ICAO

UN number:	UN 1105
UN proper shipping name:	PENTANOLS (contains 3-METHYLBUTAN-1-OL)
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

14.1. UN number
See corresponding entries for “UN number” for the respective regulations in the tables above.

14.2. UN proper shipping name
See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

14.3. Transport hazard class(es)
See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

14.4. Packing group
See corresponding entries for “Packing group” for the respective regulations in the tables above.

14.5. Environmental hazards
See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

14.6. Special precautions for user
See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2. Chemical Safety Assessment

Chemical Safety Assessment performed

SECTION 16: Other Information

Assessment of the hazard classes according to UN GHS criteria (most recent version)

Flam. Liq. 3
Eye Dam./Irrit. 1
STOT SE 3 (irritating to respiratory system)
Skin Corr./Irrit. 2
Acute Tox. 4 (Inhalation - vapour)
Acute Tox. 5 (dermal)

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Flam. Liq.	Flammable liquids
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
STOT SE	Specific target organ toxicity — single exposure
H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Annex: Exposure Scenarios

Index

1. Manufacture of substance, (use in industrial settings)
SU3; SU8, SU9; ERC1, ERC4, ERC6a; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC15

2. Distribution of substance, (use in industrial settings)
SU3; SU8, SU9; ERC1, ERC2; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15

3. Formulation & (re)packing of substances and mixtures, (use in industrial settings)
SU3; SU10; ERC2; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15

4. Use in coatings, (use in industrial settings)
SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC10, PROC13, PROC15

5. Use in Cleaning Agents, (use in industrial settings)
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6. Use in Lubricants, (use in industrial settings)
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7. Use as Binders and Release agents, (use in industrial settings)
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8. Use in laboratories, (use in industrial settings)
SU3; ERC4; PROC10, PROC15

9. Polymer processing, (use in industrial settings)
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10. Use in coatings, (use in professional settings)
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11. Use in Cleaning Agents, (use in professional settings)
SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC10, PROC11, PROC13

12. Use in Lubricants, (use in professional settings)
SU22; ERC8a, ERC8d, ERC9a, ERC9b; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC13, PROC17, PROC20

13. Use as Binders and Release agents, (use in professional settings)
SU22; ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f; PROC1, PROC2, PROC3, PROC4, PROC6, PROC8a, PROC8b, PROC10, PROC11, PROC14

14. Use in laboratories, (use in professional settings)
SU22; ERC8a; PROC10, PROC15

15. Polymer processing, (use in professional settings)
SU22; ERC8a, ERC8c, ERC8d, ERC8f; PROC1, PROC2, PROC8a, PROC8b, PROC14

16. Use in coatings, (consumer use)
SU21; ERC8a, ERC8c, ERC8d, ERC8f; PC1, PC4, PC5, PC9a, PC9c, PC10, PC15, PC18, PC23, PC31

17. Use in Cleaning Agents, (consumer use)
SU21; ERC8a, ERC8d; PC3, PC4, PC9a, PC9c, PC32, PC35, PC38

18. Use in Lubricants, (consumer use)
SU21; ERC8a, ERC8d, ERC9a, ERC9b; PC1, PC6, PC31

19. Consumer applications, (consumer use)
SU21; ERC8a, ERC8d; PC28, PC39

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1. Short title of exposure scenario

Manufacture of substance, (use in industrial settings)
SU3; SU8, SU9; ERC1, ERC4, ERC6a; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC1: Manufacture of substances As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC4: Industrial use of processing aids in processes and products, not becoming part of articles As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC6a: Industrial use resulting in manufacture of another substance (use of intermediates) As no environmental hazard was identified no

	environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in	

place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	3.68 mg/m³
Risk Characterization Ratio (RCR)	0.05
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week

	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use	

suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.

Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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2. Short title of exposure scenario

Distribution of substance, (use in industrial settings)
SU3; SU8, SU9; ERC1, ERC2; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC1: Manufacture of substances As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC2: Formulation of preparations As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	

For scaling see: http://www.ecetoc.org/tra

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	3.68 mg/m³
Risk Characterization Ratio (RCR)	0.05
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic

Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid

Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	

Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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3. Short title of exposure scenario

Formulation & (re)packing of substances and mixtures, (use in industrial settings)
SU3; SU10; ERC2; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC2: Formulation of preparations As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic

Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	3.68 mg/m³
Risk Characterization Ratio (RCR)	0.05
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15

	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact). Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment

	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: industrial

Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	

Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelettisation. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	

Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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4. Short title of exposure scenario

Use in coatings, (use in industrial settings)
SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC10, PROC13, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC4: Industrial use of processing aids in processes and products, not becoming part of articles As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: industrial

Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	3.68 mg/m³
Risk Characterization Ratio (RCR)	0.05
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact). Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC7: Industrial spraying Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance	100 hPa

during use	
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Ensure that a spraying booth is used.	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
	The calculated exposure value is negligibly low.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	

Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk	

characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	

For scaling see: http://www.ecetoc.org/tra

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance	100 hPa

during use	
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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5. Short title of exposure scenario

Use in Cleaning Agents, (use in industrial settings)
SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC10, PROC13

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC4: Industrial use of processing aids in processes and products, not becoming part of articles As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol

	Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	

Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	3.68 mg/m³
Risk Characterization Ratio (RCR)	0.05
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC7: Industrial spraying Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are	

based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Ensure that a spraying booth is used.	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
	The calculated exposure value is negligibly low.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic

Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week

	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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6. Short title of exposure scenario

Use in Lubricants, (use in industrial settings)
SU3; ERC4, ERC7; PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC4: Industrial use of processing aids in processes and products, not becoming part of articles As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC7: Industrial use of substances in closed systems. As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use	

suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	3.68 mg/m³
Risk Characterization Ratio (RCR)	0.05
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC7: Industrial spraying Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in	

place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Ensure that a spraying booth is used.	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
	The calculated exposure value is negligibly low.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	

Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.

Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: industrial
Operational conditions	

Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct	

contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC17: Lubrication at high energy conditions and in partly open process. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 95 %

Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	3.68 mg/m³
Risk Characterization Ratio (RCR)	0.05
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC17: Lubrication at high energy conditions and in partly open process. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	Liquid, high fugacity
Vapour pressure of the substance during use	> 100 hPa
Process temperature	76 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 95 %
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.

Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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7. Short title of exposure scenario

Use as Binders and Release agents, (use in industrial settings)
SU3; ERC5; PROC1, PROC2, PROC3, PROC4, PROC6, PROC7, PROC8b, PROC10, PROC13, PROC14

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC5: Industrial use resulting in inclusion into or onto a matrix As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in

	batch and other process (synthesis) where opportunity for exposure arises. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	3.68 mg/m³
Risk Characterization Ratio (RCR)	0.05
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment

	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC6: Calendering operations Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC6: Calendering operations Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %

Physical state	Liquid, high fugacity
Vapour pressure of the substance during use	> 100 hPa
Process temperature	approx. 76 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 90 %
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	64.31 mg/m³
Risk Characterization Ratio (RCR)	0.879
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC7: Industrial spraying Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct	

contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Ensure that a spraying booth is used.	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
	The calculated exposure value is negligibly low.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use	

suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value.

Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelettisation. Use domain: industrial
Operational conditions	

Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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8. Short title of exposure scenario

Use in laboratories, (use in industrial settings)
SU3; ERC4; PROC10, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC4: Industrial use of processing aids in processes and products, not becoming part of articles As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario

Use descriptors covered	PROC10: Roller application or brushing Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week

	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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9. Short title of exposure scenario

Polymer processing, (use in industrial settings)
SU3; SU10; ERC6d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC6, PROC8a, PROC8b, PROC9, PROC13, PROC14

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %

Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker

	Worker - inhalation, long-term - local und systemic
Exposure estimate	3.68 mg/m³
Risk Characterization Ratio (RCR)	0.05
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact). Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	

Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC6: Calendering operations Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment

	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC6: Calendering operations Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	Liquid, high fugacity
Vapour pressure of the substance during use	> 100 hPa
Process temperature	approx. 76 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 90 %
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	64.31 mg/m³
Risk Characterization Ratio (RCR)	0.879
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities Use domain: industrial

Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week

	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are	

based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal

Guidance to Downstream Users
For scaling see: http://www.ecetoc.org/tra

Contributing exposure scenario	
Use descriptors covered	PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelettisation. Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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10. Short title of exposure scenario

Use in coatings, (use in professional settings)
SU22; ERC8a, ERC8c, ERC8d, ERC8f; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8d: Wide dispersive outdoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic

Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC3: Use in closed batch process (synthesis or

	formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact).

	Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance	100 hPa

during use	
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	55.13 mg/m³
Risk Characterization Ratio (RCR)	0.75
PROC8b	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	183.75 mg/m³
Risk Characterization Ratio (RCR)	0.629
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance	100 hPa

during use	
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 80 %
In case no suitable local exhaust ventilation is present:, Reduce duration of activity to less than 240 min	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC11: Non industrial spraying Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual	

phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Ensure that a spraying booth is used.	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
	The calculated exposure value is negligibly low.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC11: Non industrial spraying Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	150 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	

Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 47 %
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
Exposure estimate	65.6 mg/m³
Risk Characterization Ratio (RCR)	0.89
	The short-term exposure value represents the 90th percentile of the exposure distribution.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC11: Non industrial spraying Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	330 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	

Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Provide enhanced ventilation by mechanical means.	Effectiveness: 47 %
Wear suitable respiratory protection.	Effectiveness: 80 %
In case no respiratory protection is used:, Reduce duration of activity to less than 60 min	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
Exposure estimate	68.1 mg/m³
Risk Characterization Ratio (RCR)	0.93
	The short-term exposure value represents the 90th percentile of the exposure distribution.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk	

characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	

For scaling see: http://www.ecetoc.org/tra

Contributing exposure scenario	
Use descriptors covered	PROC19: Hand-mixing with intimate contact and only PPE available. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	240 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	55.13 mg/m³
Risk Characterization Ratio (RCR)	0.75
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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11. Short title of exposure scenario

Use in Cleaning Agents, (use in professional settings)
SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC10, PROC11, PROC13

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8d: Wide dispersive outdoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid

Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in	

place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in	

place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	55.13 mg/m³
Risk Characterization Ratio (RCR)	0.75
PROC8b	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	183.75 mg/m³
Risk Characterization Ratio (RCR)	0.629
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in	

place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 80 %
In case no suitable local exhaust ventilation is present:, Reduce duration of activity to less than 240 min	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC11: Non industrial spraying Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are	

based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Ensure that a spraying booth is used.	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
	The calculated exposure value is negligibly low.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC11: Non industrial spraying Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	150 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the	

breathing zone of a worker (distance head-product greater than 1m).	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 47 %
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
Exposure estimate	65.6 mg/m³
Risk Characterization Ratio (RCR)	0.89
	The short-term exposure value represents the 90th percentile of the exposure distribution.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC11: Non industrial spraying Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	330 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Provide enhanced ventilation by	Effectiveness: 47 %

mechanical means.	
Wear suitable respiratory protection.	Effectiveness: 80 %
In case no respiratory protection is used:, Reduce duration of activity to less than 60 min	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
Exposure estimate	68.1 mg/m³
Risk Characterization Ratio (RCR)	0.93
	The short-term exposure value represents the 90th percentile of the exposure distribution.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-

	term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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12. Short title of exposure scenario

Use in Lubricants, (use in professional settings)
SU22; ERC8a, ERC8d, ERC9a, ERC9b; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC13, PROC17, PROC20

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8d: Wide dispersive outdoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC9b: Wide dispersive outdoor use of substances in closed systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance	100 hPa

during use	
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.

Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment

	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	55.13 mg/m³
Risk Characterization Ratio (RCR)	0.75
PROC8b	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic

Exposure estimate	183.75 mg/m³
Risk Characterization Ratio (RCR)	0.629
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: professional

Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC17: Lubrication at high energy conditions and in partly open process. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.

Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 90 %
In case no suitable local exhaust ventilation is present:, Reduce duration of activity to less than 60 min	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.126
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC17: Lubrication at high energy conditions and in partly open process. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	Liquid, high fugacity
Vapour pressure of the substance during use	> 100 hPa
Process temperature	76 °C
Duration and Frequency of activity	60 min 5 days per week
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place	

are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Wear suitable respiratory protection.	Effectiveness: 90 %
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
Assessment method	Qualitative assessment
	Worker - dermal
Assessment method	ECETOC TRA v2.0 Worker
	Worker- inhalation, short-term - local und systemic
Exposure estimate	183.75 mg/m³
Risk Characterization Ratio (RCR)	0.629
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC20: Heat and pressure transfer fluids in dispersive use but closed systems Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	

Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.251
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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13. Short title of exposure scenario

Use as Binders and Release agents, (use in professional settings)
SU22; ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f; PROC1, PROC2, PROC3, PROC4, PROC6, PROC8a, PROC8b, PROC10, PROC11, PROC14

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8b: Wide dispersive indoor use of reactive substances in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8d: Wide dispersive outdoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8e: Wide dispersive outdoor use of reactive substances in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with occasional controlled exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %

Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC3: Use in closed batch process (synthesis or formulation). PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual	

phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	11.03 mg/m³
Risk Characterization Ratio (RCR)	0.15
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC4	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC6: Calendering operations Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs	

followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC6: Calendering operations Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	> 100 hPa
Process temperature	approx. 76 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 80 %
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic

Exposure estimate	55.13 mg/m³
Risk Characterization Ratio (RCR)	0.753
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	55.13 mg/m³
Risk Characterization Ratio (RCR)	0.75
PROC8b	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5

	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	183.75 mg/m³
Risk Characterization Ratio (RCR)	0.629
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 80 %
In case no suitable local exhaust ventilation is present:, Reduce duration of activity to less than 240 min	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-

	term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC11: Non industrial spraying Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Ensure that a spraying booth is used.	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
	The calculated exposure value is negligibly low.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario

Use descriptors covered	PROC11: Non industrial spraying Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	150 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 47 %
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
Exposure estimate	65.6 mg/m³
Risk Characterization Ratio (RCR)	0.89
	The short-term exposure value represents the 90th percentile of the exposure distribution.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC11: Non industrial spraying Use domain: professional

Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	330 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Clean equipment and the work area every day. Regular inspection and maintenance of equipment and machines. Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m).	
Provide enhanced ventilation by mechanical means.	Effectiveness: 47 %
Wear suitable respiratory protection.	Effectiveness: 80 %
In case no respiratory protection is used:, Reduce duration of activity to less than 60 min	
Exposure estimate and reference to its source	
Assessment method	Stoffenmanager v4.0
	Worker - inhalation, long-term - local und systemic
Exposure estimate	68.1 mg/m³
Risk Characterization Ratio (RCR)	0.93
	The short-term exposure value represents the 90th percentile of the exposure distribution.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: https://www.stoffenmanager.nl/default.aspx	

Contributing exposure scenario	
Use descriptors covered	PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelettisation.

	Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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14. Short title of exposure scenario

Use in laboratories, (use in professional settings)
SU22; ERC8a; PROC10, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 80 %
In case no suitable local exhaust ventilation is present:, Reduce duration of activity to less than 240 min	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: professional

Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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15. Short title of exposure scenario

Polymer processing, (use in professional settings)
SU22; ERC8a, ERC8c, ERC8d, ERC8f; PROC1, PROC2, PROC8a, PROC8b, PROC14

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8d: Wide dispersive outdoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	PROC1: Use in closed process, no likelihood of exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	0.04 mg/m³
Risk Characterization Ratio (RCR)	0.00051
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Use in closed, continuous process with

	occasional controlled exposure. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	18.38 mg/m³
Risk Characterization Ratio (RCR)	0.25
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or preparation (charging/discharging) from/to ves-sels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %

Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	55.13 mg/m³
Risk Characterization Ratio (RCR)	0.75
PROC8b	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	183.75 mg/m³
Risk Characterization Ratio (RCR)	0.629
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelettisation. Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %

Physical state	liquid
Vapour pressure of the substance during use	100 hPa
Duration and Frequency of activity	480 min 5 days per week
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure minimization of manual phases Avoid frequent and direct contact with substance. Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection. Use suitable chemically resistant gloves.	
Risk Management Measures are based on qualitative risk characterisation.	
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - local und systemic
Exposure estimate	36.75 mg/m³
Risk Characterization Ratio (RCR)	0.5
	The short-term exposure value corresponds to the long-term value multiplied by a factor of 2.
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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16. Short title of exposure scenario

Use in coatings, (consumer use)
SU21; ERC8a, ERC8c, ERC8d, ERC8f; PC1, PC4, PC5, PC9a, PC9c, PC10, PC15, PC18, PC23, PC31

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix

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

Contributing exposure scenario	
Use descriptors covered	ERC8d: Wide dispersive outdoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_1: Subcategory: Glues, hobby use
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 30 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 9 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	8.52 mg/m³
Risk Characterization Ratio (RCR)	0.554

Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	51.15 mg/m³
Risk Characterization Ratio (RCR)	0.199
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_2: Subcategory: Glues DIY-use (carpet glue, tile glue, wood parquet glue)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 0.2 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	300 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 6,390 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	10.65 mg/m³
Risk Characterization Ratio (RCR)	0.69
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	42.60 mg/m³
Risk Characterization Ratio (RCR)	0.17
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_2: Subcategory: Glues DIY-use (carpet glue, tile glue, wood parquet glue)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 0.5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	75 min 365 days per year

Room size	53 m3
	Covers use under typical household ventilation.
	Amount per use 9,000 g
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	11.50 mg/m³
Risk Characterization Ratio (RCR)	0.75
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	220 mg/m³
Risk Characterization Ratio (RCR)	0.86
Guidance to Downstream Users	
For scaling see: http://www.advancedreachtool.com	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_3: Subcategory: Glue from spray
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 6 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 85.05 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	13.43 mg/m³
Risk Characterization Ratio (RCR)	0.872
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	80.56 mg/m³
Risk Characterization Ratio (RCR)	0.314
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_4: Subcategory: Sealant

Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	60 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 75 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	5.87 mg/m³
Risk Characterization Ratio (RCR)	0.381
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	141 mg/m³
Risk Characterization Ratio (RCR)	0.55
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC4: Anti-Freeze and De-icing products., PC4_1: Subcategory: Washing car window
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 1 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	1 min 365 days per year
Room size	34 m3
	Covers use in a one car garage under typical ventilation.
	Amount per use 0.5 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
	The calculated exposure value is negligibly low.
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	0.15 mg/m³
Risk Characterization Ratio (RCR)	0.001

Guidance to Downstream Users
For scaling see: http://www.ecetoc.org/tra

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC4: Anti-Freeze and De-icing products., PC4_2: Subcategory: Pouring into radiator
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	10 min 365 days per year
Room size	34 m3
	Covers use in a one car garage under typical ventilation.
	Amount per use 2,000 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	0.92 mg/m³
Risk Characterization Ratio (RCR)	0.06
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	129.81 mg/m³
Risk Characterization Ratio (RCR)	0.506
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC4: Anti-Freeze and De-icing products., PC4_3: Subcategory: Lock de-icer
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 50 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	15 min 365 days per year
Room size	34 m3
	Covers use in a one car garage under typical ventilation.
	Amount per use 4 g

Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	0.51 mg/m³
Risk Characterization Ratio (RCR)	0.033
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	49.05 mg/m³
Risk Characterization Ratio (RCR)	0.191
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9a: Coatings and paints, thinners, paint removers, PC9a_3, PC15_3: Subcategory: Aerosol spray can
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 15 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	20 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	2.96 mg/m³
Risk Characterization Ratio (RCR)	0.19
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	213 mg/m³
Risk Characterization Ratio (RCR)	0.83
Assessment method	ConsExpo v4.1
	Consumer- oral, long-term - local und systemic
Exposure estimate	0.29 mg/kg bw/day
Risk Characterization Ratio (RCR)	0.01
Guidance to Downstream Users	

For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9a: Coatings and paints, thinners, paint removers, PC9a_1, PC15_1: Subcategory: Waterborne latex wall paint
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 1.5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	132 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 3,750 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	12.8 mg/m³
Risk Characterization Ratio (RCR)	0.83
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	140 mg/m³
Risk Characterization Ratio (RCR)	0.55
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9a: Coatings and paints, thinners, paint removers, PC9a_2, PC15_2: Subcategory: Solvent rich, high solid, water borne paint
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 2 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	132 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.

	Amount per use 744 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	12.35 mg/m³
Risk Characterization Ratio (RCR)	0.8
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	134.7 mg/m³
Risk Characterization Ratio (RCR)	0.53
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9a: Coatings and paints, thinners, paint removers, PC9a_4, PC15_4: Subcategory: Removers (paint-, glue-, wall paper-, sealant-remover)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 2 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	120 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 491 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	12.96 mg/m³
Risk Characterization Ratio (RCR)	0.84
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	155.52 mg/m³
Risk Characterization Ratio (RCR)	0.6
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9c: Finger paints
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol

	Content: >= 0 % - <= 9 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	120 min 365 days per year
	Amount per use 1.35 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- oral, long-term - local und systemic
Exposure estimate	12.15 mg/kg bw/day
Risk Characterization Ratio (RCR)	0.486
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC5: Artists Supply and Hobby preparations., PC10: Building and construction preparations not covered elsewhere. covered by PC1 covered by PROC9

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC15: Non-metal-surface treatment products., PC9a_3, PC15_3: Subcategory: Aerosol spray can
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 15 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	20 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic

Exposure estimate	2.96 mg/m³
Risk Characterization Ratio (RCR)	0.19
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	213 mg/m³
Risk Characterization Ratio (RCR)	0.83
Assessment method	ConsExpo v4.1
	Consumer- oral, long-term - local und systemic
Exposure estimate	0.29 mg/kg bw/day
Risk Characterization Ratio (RCR)	0.01
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC15: Non-metal-surface treatment products., PC9a_1, PC15_1: Subcategory: Waterborne latex wall paint
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 1.5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	132 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 3,750 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	12.8 mg/m³
Risk Characterization Ratio (RCR)	0.83
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	140 mg/m³
Risk Characterization Ratio (RCR)	0.55
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC15: Non-metal-surface treatment products., PC9a_2, PC15_2: Subcategory: Solvent rich, high solid, water borne paint
Operational conditions	

Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 2 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	132 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 744 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	12.35 mg/m³
Risk Characterization Ratio (RCR)	0.8
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	134.7 mg/m³
Risk Characterization Ratio (RCR)	0.53
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC15: Non-metal-surface treatment products., PC9a_4, PC15_4: Subcategory: Removers (paint-, glue-, wall paper-, sealant-remover)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 2 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	120 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 491 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	12.96 mg/m³
Risk Characterization Ratio (RCR)	0.84
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	155.52 mg/m³

Risk Characterization Ratio (RCR)	0.6
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC18: Ink and Toners.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	132 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 40 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	10.18 mg/m³
Risk Characterization Ratio (RCR)	0.443
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	111.04 mg/m³
Risk Characterization Ratio (RCR)	0.661
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC23: Leather tanning, dye, finishing, impregnation and care products., PC23_1, PC31_1: Subcategory: Polishes, wax / cream (floor, furniture, shoes)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 50 %

Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 365 days per year
Room size	58 m3
	Use in rooms with open windows.
	Amount per use 56 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	13.3 mg/m³
Risk Characterization Ratio (RCR)	0.31
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	79.7 mg/m³
Risk Characterization Ratio (RCR)	0.86
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC23: Leather tanning, dye, finishing, impregnation and care products., PC23_2, PC31_2: Subcategory: Polishes, spray (furniture, shoes)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 50 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 365 days per year
Room size	58 m3
	Covers use under typical household ventilation.
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water

	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	2.22 mg/m³
Risk Characterization Ratio (RCR)	0.14
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	13.3 mg/m³
Risk Characterization Ratio (RCR)	0.05
Assessment method	ConsExpo v4.1
	Consumer- oral, long-term - local und systemic
Exposure estimate	0.06 mg/kg bw/day
Risk Characterization Ratio (RCR)	0.002
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC31: Polishes and Wax Blends., PC23_1, PC31_1: Subcategory: Polishes, wax / cream (floor, furniture, shoes)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 9 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 365 days per year
Room size	58 m3
	Covers use under typical household ventilation.
	Amount per use 550 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	14.2 mg/m³
Risk Characterization Ratio (RCR)	0.33
Assessment method	ConsExpo v4.1

	Consumer- inhalation, short-term - local und systemic
Exposure estimate	85 mg/m³
Risk Characterization Ratio (RCR)	0.92
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC31: Polishes and Wax Blends., PC23_2, PC31_2: Subcategory: Polishes, spray (furniture, shoes)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 50 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 365 days per year
Room size	58 m3
	Covers use under typical household ventilation.
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	2.22 mg/m³
Risk Characterization Ratio (RCR)	0.14
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	13.3 mg/m³
Risk Characterization Ratio (RCR)	0.05
Assessment method	ConsExpo v4.1
	Consumer- oral, long-term - local und systemic
Exposure estimate	0.06 mg/kg bw/day
Risk Characterization Ratio (RCR)	0.002
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

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17. Short title of exposure scenario

Use in Cleaning Agents, (consumer use)
SU21; ERC8a, ERC8d; PC3, PC4, PC9a, PC9c, PC32, PC35, PC38

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8d: Wide dispersive outdoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC3: Air care products., PC3_1: Subcategory: Air care, instant action (aerosol sprays)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 50 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	15 min 4 uses per day
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 0.1 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	0.1 mg/m³
Risk Characterization Ratio (RCR)	0.006
Assessment method	ECETOC TRA v2.0 Consumer

	Consumer- inhalation, short-term - local und systemic
Exposure estimate	2.32 mg/m³
Risk Characterization Ratio (RCR)	0.009
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC3: Air care products., PC3_2: Subcategory: Air care, continuous action (solid and liquid)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	480 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 0.48 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	0.17 mg/m³
Risk Characterization Ratio (RCR)	0.011
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	0.5 mg/m³
Risk Characterization Ratio (RCR)	0.002
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC4: Anti-Freeze and De-icing products., PC4_1: Subcategory: Washing car window
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol

	Content: >= 0 % - <= 1 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	1 min 365 days per year
Room size	34 m3
	Covers use in a one car garage under typical ventilation.
	Amount per use 0.5 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
	The calculated exposure value is negligibly low.
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	0.15 mg/m³
Risk Characterization Ratio (RCR)	0.001
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC4: Anti-Freeze and De-icing products., PC4_2: Subcategory: Pouring into radiator
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	10 min 365 days per year
Room size	34 m3
	Covers use in a one car garage under typical ventilation.
	Amount per use 2,000 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	0.92 mg/m³
Risk Characterization Ratio (RCR)	0.06
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	129.81 mg/m³
Risk Characterization Ratio (RCR)	0.506
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC4: Anti-Freeze and De-icing products., PC4_3: Subcategory: Lock de-icer
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 50 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	15 min 365 days per year
Room size	34 m3
	Covers use in a one car garage under typical ventilation.
	Amount per use 4 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	0.51 mg/m³
Risk Characterization Ratio (RCR)	0.033
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	49.05 mg/m³
Risk Characterization Ratio (RCR)	0.191
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9a: Coatings and paints, thinners, paint removers, PC9a_3, PC15_3: Subcategory: Aerosol spray can
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 15 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	20 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with

	eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	2.96 mg/m³
Risk Characterization Ratio (RCR)	0.19
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	213 mg/m³
Risk Characterization Ratio (RCR)	0.83
Assessment method	ConsExpo v4.1
	Consumer- oral, long-term - local und systemic
Exposure estimate	0.29 mg/kg bw/day
Risk Characterization Ratio (RCR)	0.01
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9a: Coatings and paints, thinners, paint removers, PC9a_1, PC15_1: Subcategory: Waterborne latex wall paint
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 1.5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	132 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 3,750 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	12.8 mg/m³
Risk Characterization Ratio (RCR)	0.83
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	140 mg/m³
Risk Characterization Ratio (RCR)	0.55
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9a: Coatings and paints, thinners, paint removers, PC9a_2, PC15_2: Subcategory: Solvent rich, high solid, water borne paint
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 2 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	132 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 744 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	12.35 mg/m³
Risk Characterization Ratio (RCR)	0.8
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	134.7 mg/m³
Risk Characterization Ratio (RCR)	0.53
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9a: Coatings and paints, thinners, paint removers, PC9a_4, PC15_4: Subcategory: Removers (paint-, glue-, wall paper-, sealant-remover)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 2 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	120 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 491 g

Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	12.96 mg/m³
Risk Characterization Ratio (RCR)	0.84
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	155.52 mg/m³
Risk Characterization Ratio (RCR)	0.6
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC9c: Finger paints
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 9 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	120 min 365 days per year
	Amount per use 1.35 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- oral, long-term - local und systemic
Exposure estimate	12.15 mg/kg bw/day
Risk Characterization Ratio (RCR)	0.486
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC32: Polymer Preparations and Compounds.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 3 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	30 min
Room size	57.3 m3
	Use only in sufficiently ventilated rooms.

	Amount per use 825 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	5.12 mg/m³
Risk Characterization Ratio (RCR)	0.33
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	246 mg/m³
Risk Characterization Ratio (RCR)	0.96
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC35: Washing and Cleaning Products (including solvent based products)., PC8_3, PC35_3: Subcategory: Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 12 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	10 min 128 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 35 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	1.41 mg/m³
Risk Characterization Ratio (RCR)	0.092
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	199.65 mg/m³
Risk Characterization Ratio (RCR)	0.779
Guidance to Downstream Users	

For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC35: Washing and Cleaning Products (including solvent based products)., PC8_2, PC35_2: Subcategory: Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	20 min 128 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 27 g
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	0.84 mg/m³
Risk Characterization Ratio (RCR)	0.055
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	61.24 mg/m³
Risk Characterization Ratio (RCR)	0.239
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC35: Washing and Cleaning Products (including solvent based products)., PC8_1, PC35_1: Subcategory: Laundry and dish washing products
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	30 min 365 days per year

Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 15 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	0.67 mg/m³
Risk Characterization Ratio (RCR)	0.044
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	32.4 mg/m³
Risk Characterization Ratio (RCR)	0.126
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC38: Welding and soldering products, flux products.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 20 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	60 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 12 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	3.76 mg/m³
Risk Characterization Ratio (RCR)	0.092
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	90.24 mg/m³
Risk Characterization Ratio (RCR)	0.779
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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18. Short title of exposure scenario

Use in Lubricants, (consumer use)
SU21; ERC8a, ERC8d, ERC9a, ERC9b; PC1, PC6, PC31

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8d: Wide dispersive outdoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC9b: Wide dispersive outdoor use of substances in closed systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_1: Subcategory: Glues, hobby use
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 30 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.

	Amount per use 9 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	8.52 mg/m³
Risk Characterization Ratio (RCR)	0.554
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	51.15 mg/m³
Risk Characterization Ratio (RCR)	0.199
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_2: Subcategory: Glues DIY-use (carpet glue, tile glue, wood parquet glue)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 0.2 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	300 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 6,390 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	10.65 mg/m³
Risk Characterization Ratio (RCR)	0.69
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	42.60 mg/m³
Risk Characterization Ratio (RCR)	0.17
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_2: Subcategory: Glues DIY-use (carpet glue, tile glue, wood parquet glue)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 0.5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	75 min 365 days per year
Room size	53 m3
	Covers use under typical household ventilation.
	Amount per use 9,000 g
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	11.50 mg/m³
Risk Characterization Ratio (RCR)	0.75
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	220 mg/m³
Risk Characterization Ratio (RCR)	0.86
Guidance to Downstream Users	
For scaling see: http://www.advancedreachtool.com	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_3: Subcategory: Glue from spray
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 6 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 85.05 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic

Exposure estimate	13.43 mg/m³
Risk Characterization Ratio (RCR)	0.872
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	80.56 mg/m³
Risk Characterization Ratio (RCR)	0.314
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC1: Adhesives, Sealants, PC1_4: Subcategory: Sealant
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	60 min 365 days per year
Room size	20 m3
	Covers use under typical household ventilation.
	Amount per use 75 g
Exposure estimate and reference to its source	
Assessment method	ECETOC TRA, Consumer
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	5.87 mg/m³
Risk Characterization Ratio (RCR)	0.381
Assessment method	ECETOC TRA v2.0 Consumer
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	141 mg/m³
Risk Characterization Ratio (RCR)	0.55
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC6: Automotive Care Products. covered by PC31 covered by PC35

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC31: Polishes and Wax Blends., PC23_1, PC31_1: Subcategory: Polishes, wax / cream (floor, furniture, shoes)

Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 9 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 365 days per year
Room size	58 m3
	Covers use under typical household ventilation.
	Amount per use 550 g
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	14.2 mg/m³
Risk Characterization Ratio (RCR)	0.33
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	85 mg/m³
Risk Characterization Ratio (RCR)	0.92
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC31: Polishes and Wax Blends., PC23_2, PC31_2: Subcategory: Polishes, spray (furniture, shoes)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 50 %
Physical state	liquid
Vapour pressure of the substance during use	3 hPa
Duration and Frequency of activity	240 min 365 days per year
Room size	58 m3
	Covers use under typical household ventilation.
Risk Management Measures	
Consumer Measures	Ensure that direct skin contact is avoided. Ensure that

	direct contact with eyes is avoided. In case of contact with eyes, rinse immediately with plenty of water After contact with skin, wash immediately with plenty of water
	Risk Management Measures are based on qualitative risk characterisation.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer- inhalation, long-term - local und systemic
Exposure estimate	2.22 mg/m³
Risk Characterization Ratio (RCR)	0.14
Assessment method	ConsExpo v4.1
	Consumer- inhalation, short-term - local und systemic
Exposure estimate	13.3 mg/m³
Risk Characterization Ratio (RCR)	0.05
Assessment method	ConsExpo v4.1
	Consumer- oral, long-term - local und systemic
Exposure estimate	0.06 mg/kg bw/day
Risk Characterization Ratio (RCR)	0.002
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

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19. Short title of exposure scenario

Consumer applications, (consumer use)
SU21; ERC8a, ERC8d; PC28, PC39

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC8a: Wide dispersive indoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	ERC8d: Wide dispersive outdoor use of processing aids in open systems As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

Contributing exposure scenario	
Use descriptors covered	SU21: Consumer uses PC28: Perfumes, Fragrances., PC39: Cosmetics, personal care products. covered by other legislations

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