We create chemistry

Safety data sheet

BASF Safety data sheet according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended from time to time.
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Product: **3-METHYLBUTANOL-1**
(ID no. 30036711/SDS_GEN_GB/EN)
Date of print 13.10.2025

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 plc
4th and 5th Floors, 2 Stockport Exchange
Railway Road, Stockport, SK1 3GG
UNITED KINGDOM

Telephone: +44 161 475 3000
E-mail address: product-safety-uk-and-ireland@basf.com

1.4. Emergency telephone number

International emergency number:
Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Flam. Liq. 3	H226 Flammable liquid and vapour.
Acute Tox. 4 (Inhalation - vapour)	H332 Harmful if inhaled.
Skin Irrit. 2	H315 Causes skin irritation.
Eye Dam. 1	H318 Causes serious eye damage.
STOT SE 3	H335 May cause respiratory irritation.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.

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

2.2. Label elements

According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

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.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye protection or face protection.

Precautionary Statements (Response):

P310	Immediately call a POISON CENTER or 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.

Precautionary Statements (Storage):

P233	Keep container tightly closed.

Precautionary Statements (Disposal):

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

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

Hazard determining component(s) for labelling: 1-pentanol, 3-Methylbutan-1-ol

2.3. Other hazards

According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

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 (Content (W/W): >= 98.5 %)
CAS Number: 123-51-3
EC-Number: 204-633-5

Hazardous ingredients (GHS)

3-Methylbutan-1-ol

Content (W/W): > 98.5 % - < 99.9 %	Flam. Liq. 3
CAS Number: 123-51-3	Acute Tox. 4 (Inhalation - vapour)
EC-Number: 204-633-5	Skin Irrit. 2
	Eye Dam. 1
	STOT SE 3 (irr. to respiratory syst.)
	Aquatic Chronic 2
	H226, H318, H315, H332, H335, H411
	EUH066

1-pentanol

Content (W/W): >= 0 % - <= 1 %	Flam. Liq. 3
CAS Number: 71-41-0	Acute Tox. 4 (Inhalation - vapour)
EC-Number: 200-752-1	Skin Irrit. 2
INDEX-Number: 603-200-00-1	Eye Dam. 1
	STOT SE 3 (irr. to respiratory syst.)
	Aquatic Chronic 2
	H226, H318, H315, H332, H335, H411

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

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

On skin contact:
Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

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:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:
dry powder, water spray, carbon dioxide, alcohol-resistant foam

Unsuitable extinguishing media for safety reasons:
water jet

Additional information:
Use extinguishing measures to suit surroundings.

5.2. Special hazards arising from the substance or mixture

Advice: Flammable liquid Cool endangered containers with water-spray. See SDS section 7 - Handling and storage.

5.3. Advice for fire-fighters

Special protective equipment:
Wear a self-contained breathing apparatus. Special protective equipment for firefighters

Further information:
Evacuate area of all unnecessary personnel. Fight fire from maximum distance.

Extend fire extinguishing measures to the surroundings. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6: Accidental Release Measures

High risk of slipping due to leakage/spillage of product.

Release of substance/product can cause fire or explosion. Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

Pack in tightly closed containers for disposal.

6.1. Personal precautions, protective equipment and emergency procedures

Handle in accordance with good industrial hygiene and safety practice.

Avoid all sources of ignition: heat, sparks, open flame. Use antistatic tools.

6.2. Environmental precautions

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Pick up with suitable appliance and dispose of. Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

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

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Ground all transfer equipment properly to prevent electrostatic discharge.

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 366 mg/m3 ; 100 ppm (WEL/EH 40 (UK))
STEL value 37 mg/m3 ; 10 ppm (OEL (EU))
indicative
TWA value 18 mg/m3 ; 5 ppm (OEL (EU))
indicative
STEL value 458 mg/m3 ; 125 ppm (WEL/EH 40 (UK))
Ceiling limit value/factor: 15 min
(EU SCOEL)
Included in the regulation, but with no data values - See the regulation for further details

PNEC
freshwater: 0.0059 mg/l

marine water: 0.00059 mg/l

intermittent release: 2.55 mg/l

sediment (freshwater): 0.024 mg/kg

sediment (marine water): 0.0024 mg/kg

soil: 0.00141 mg/kg

STP: 37 mg/l

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

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

consumer:
Long-term exposure - local effects, Inhalation: 13 mg/m3

consumer:
Short-term exposure - local effects, Inhalation: 218 mg/m3

consumer:
Long-term exposure- systemic effects, oral: 12.5 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 ISO 374-1)
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
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

All appropriate measures must be taken to prevent the release of this product to the environment and to limit the dispersion of any release when it occurs. Suitable risk management measures should be in place.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	liquid	
Colour:	colourless	
Odour:	sweetish	
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)
Boiling range:	No data available.	
Flash point:	43.5 °C	(ISO 13736, closed cup)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability:	Flammable.	(derived from flash point)
Lower explosion limit:	1.0 %(V) (37.4 °C)	(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 density:	0.8080 (20 °C)	
Relative vapour density (air):	3.03 (20 °C) Heavier than air.	(calculated)
Solubility in water:	Literature data. 26,400 mg/l, 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:	Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	4.3 mPa.s (20 °C)	
Viscosity, kinematic:	5.32 mm2/s (20 °C)	(DIN 51562)
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	

9.2. Other information

Self heating ability:	not applicable, the product is a liquid	
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
When heated can give off ignitable vapours.

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. The European Union (EU) has classified this substance as 'harmful' after inhalation.

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. May cause severe damage to the eyes.

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

Serious eye damage/irritation
rabbit: irreversible damage (Draize test)

Respiratory/Skin sensitization

Assessment of sensitization:
There is no evidence of a skin-sensitizing potential. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:
In vitro/in chemico test battery In vitro assay: Non-sensitizing. (In vitro skin sensitization test battery)

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.

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. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

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. Toxic to aquatic organisms based on long-term (chronic) toxicity study data.

Toxicity to fish:
LC50 (96 h) > 120 mg/l, Salmo gairdneri, syn. O. mykiss (OECD 203; ISO 7346; 84/449/EWG, 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 observed effect concentration (35 d) 10 mg/l, Brachydanio rerio (OECD Guideline 210, Flow through.)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity to aquatic invertebrates:
EC10 (21 d) 0.059 mg/l, Daphnia magna (OECD Guideline 211, semistatic)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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/EWG, 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

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.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).
This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

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 or ID number:	UN1105
UN proper shipping name:	PENTANOLS
Transport hazard class(es):	3, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	Tunnel code: D/E

RID

UN number or ID number:	UN1105
UN proper shipping name:	PENTANOLS
Transport hazard class(es):	3, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Inland waterway transport

ADN

UN number or ID number:	UN1105
UN proper shipping name:	PENTANOLS
Transport hazard class(es):	3, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Transport in inland waterway vessel
Not evaluated

Sea transport

IMDG

UN number or ID number:	UN 1105
UN proper shipping name:	PENTANOLS
Transport hazard class(es):	3, EHSM
Packing group:	III

Environmental hazards:	yes Marine pollutant: NO
Special precautions for user:	

Air transport

IATA/ICAO

UN number or ID number:	UN 1105
UN proper shipping name:	PENTANOLS
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 or ID number
See corresponding entries for “UN number or ID 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. Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

Further information
This product is subject to the most recent edition of "The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations" and their amendments (United Kingdom).

SECTION 15: Regulatory Information

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

Prohibitions, Restrictions and Authorizations

UK REACH SI, Annex XVII, Marketing and Use Restrictions
Number on List: 40
Concentration limit: 0.1 %

UK REACH SI, Annex XVII, Marketing and Use Restrictions
Number on List: 3
Concentration limit: 0.1 %

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):
List entry in regulation: P5a
Classification applies for standard conditions of temperature and pressure.
List entry in regulation: P5b
Classification applies for standard conditions of temperature and pressure.
List entry in regulation: P5c
Classification applies for standard conditions of temperature and pressure.

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):
List entry in regulation: E2
Classification applies for standard conditions of temperature and pressure.

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

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).
This product may be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments if specific threshold tonnages are exceeded (United Kingdom).

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. 1
STOT SE 3 (irritating to respiratory system)
Skin Irrit. 2
Acute Tox. 5 (dermal)
Aquatic Chronic 2

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 Irrit.	Skin irritation
Eye Dam.	Serious eye damage
STOT SE	Specific target organ toxicity — single exposure
Aquatic Chronic	Hazardous to the aquatic environment - chronic
H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Abbreviations
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

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.

Vertical lines in the left hand margin indicate an amendment from the previous version.

Annex: Exposure Scenarios

Index

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1. Short title of exposure scenario

Manufacture of substance
IS, SU8, SU9; ERC1; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ESVOC SpERC 1.1.v1: ESVOC SpERC 1.1.v1 As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Operational conditions	

Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection.	
In case of potential exposure:, Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.0367 mg/m³
Risk Characterization Ratio (RCR)	0.000502
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure	

only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	3.6728 mg/m³
Risk Characterization Ratio (RCR)	0.050203
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: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	11.0185 mg/m³

Risk Characterization Ratio (RCR)	0.150609
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029
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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the	

RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker

	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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

Formulation & (re)packing of substances and mixtures, (use in industrial settings)

IS, SU10; ERC2; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ESVOC SpERC 2.2.v1: ESVOC SpERC 2.2.v1 As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Operational conditions	

Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection.	
In case of potential exposure:, Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.0367 mg/m³
Risk Characterization Ratio (RCR)	0.000502
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	3.6728 mg/m³
Risk Characterization Ratio (RCR)	0.050203
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: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week

Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	11.0185 mg/m³
Risk Characterization Ratio (RCR)	0.150609
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	

Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029
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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week

Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with	

substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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

Use as a Process chemical, (use in industrial settings)
SU10; ERC4; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ESVOC SpERC 1.1.v1: ESVOC SpERC 1.1.v1 As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Operational conditions	

Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection.	
In case of potential exposure:, Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.0367 mg/m³
Risk Characterization Ratio (RCR)	0.000502
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	3.6728 mg/m³
Risk Characterization Ratio (RCR)	0.050203
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: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	11.0185 mg/m³
Risk Characterization Ratio (RCR)	0.150609
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be	

applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029

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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	

Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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 as an intermediate, (use in industrial settings)
ERC6a; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ESVOC SpERC 6.1a.v1: ESVOC SpERC 6.1a.v1 As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Operational conditions	

Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor

	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection.	
In case of potential exposure:, Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.0367 mg/m³
Risk Characterization Ratio (RCR)	0.000502
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local

Exposure estimate	3.6728 mg/m³
Risk Characterization Ratio (RCR)	0.050203
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: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	11.0185 mg/m³
Risk Characterization Ratio (RCR)	0.150609
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor

	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029
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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant	

gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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 Coatings, (use in industrial settings)
IS; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ESVOC SpERC 4.3a.v1: ESVOC SpERC 4.3a.v1 As no environmental hazard was identified no environmental-related exposure assessment and risk

	characterization was performed.
Operational conditions	

Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection.	
In case of potential exposure:, Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.0367 mg/m³
Risk Characterization Ratio (RCR)	0.000502
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions Use domain: industrial
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance	300 Pa

during use	
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	3.6728 mg/m³
Risk Characterization Ratio (RCR)	0.050203
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: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be	

applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	11.0185 mg/m³
Risk Characterization Ratio (RCR)	0.150609
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014

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 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m). Ensure that the task is not carried out overhead. Supervision in place to check that the RMMs in place are being used correctly and OCs followed. Regular inspection and maintenance of equipment and machines.	
Handle in a fume cupboard or under extract ventilation Ensure that task is semi-automated or automated. Ensure containment of the emission source	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, Advanced REACH Tool v1.5
	Worker - inhalation, long-term - local
Exposure estimate	37 mg/m³
Risk Characterization Ratio (RCR)	0.505741
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.advancedreachtool.com	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or mixture (charging and discharging) 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	300 Pa

during use	
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029
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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	

Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029
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	300 Pa

during use	
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	

Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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 Coatings, (use in professional settings)
PW; ERC8a, ERC8d; 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	ESVOC SpERC 8.3b.v1: ESVOC SpERC 8.3b.v1 As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Operational conditions	

Contributing exposure scenario	
Use descriptors covered	ESVOC SpERC 8.3b.v1: ESVOC SpERC 8.3b.v1 As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Operational conditions	

Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Use suitable eye protection.	
In case of potential exposure:, Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.0367 mg/m³
Risk Characterization Ratio (RCR)	0.000502
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	

Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	11.0185 mg/m³
Risk Characterization Ratio (RCR)	0.150609
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	

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

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029
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 Use domain: professional
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance	300 Pa

during use	
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029
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 mixture (charging and discharging) at non-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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	

Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	27.5463 mg/m³
Risk Characterization Ratio (RCR)	0.376521
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 mixture (charging and discharging) 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³

Risk Characterization Ratio (RCR)	0.502029
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	27.5463 mg/m³
Risk Characterization Ratio (RCR)	0.376521
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Ensure that the task is being carried out outside the breathing zone of a worker (distance head-product greater than 1m). Ensure that the task is not carried out overhead. Supervision in place to check that the RMMs in place are being used correctly and OCs followed. Regular inspection and maintenance of equipment and machines.	
Handle in a fume cupboard or under extract ventilation Ensure that task is semi-automated or automated. Ensure containment of the emission source	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, Advanced REACH Tool v1.5
	Worker - inhalation, long-term - local
Exposure estimate	37 mg/m³
Risk Characterization Ratio (RCR)	0.505741
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.advancedreachtool.com	

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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	36.7284 mg/m³
Risk Characterization Ratio (RCR)	0.502029
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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be	

applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	18.3642 mg/m³
Risk Characterization Ratio (RCR)	0.251014
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: Manual activities involving hand 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	300 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Wear suitable respiratory protection.	Effectiveness: 90 %
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.	
Personal measures have to be applied in case of potential exposure only.	
Use suitable eye protection.	
Avoid frequent and direct contact with substance.	
Use suitable chemically resistant gloves.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	9.1821 mg/m³
Risk Characterization Ratio (RCR)	0.125507

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 in Coatings, (consumer use)
C; ERC8a, ERC8d; PC1, PC4, PC9a, PC9c, PC15, PC18, PC23, PC24, PC31

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ESVOC SpERC 8.3c.v1: ESVOC SpERC 8.3c.v1 As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Operational conditions	

Contributing exposure scenario	
Use descriptors covered	ESVOC SpERC 8.3c.v1: ESVOC SpERC 8.3c.v1 As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Operational conditions	

Contributing exposure scenario	
Use descriptors covered	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 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 75 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 75 min Relevant for inhalative exposure estimates
Room size	58 m3
Ventilation rate per hour	2.5
Temperature (Application)	20 °C
body weight	65 kg
Release area	40000 cm²
	Release area is constant

Release duration	75 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation
	Consumer - inhalation, short-term - systemic
Exposure estimate	210.9903 mg/m³
Risk Characterization Ratio (RCR)	0.967845
	The exposure calculation is based on a single use of the product.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC1_4: Subcategory: Sealant
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 45 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 30 min Relevant for inhalative exposure estimates
Room size	10 m3
Ventilation rate per hour	2
Temperature (Application)	20 °C
body weight	65 kg
Release area	250 cm²
	Release area increases over time
Release duration	30 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation
	Consumer - inhalation, short-term - systemic
Exposure estimate	153.9865 mg/m³
Risk Characterization Ratio (RCR)	0.70636
	The exposure calculation is based on a single use of the product.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	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 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 60 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 60 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	< 1 uses per year
Room size	58 m3
Ventilation rate per hour	0.5
Temperature (Application)	20 °C
body weight	65 kg
Release area	220000 cm²
	Release area increases over time
Release duration	60 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation
	Consumer - inhalation, long-term - systemic
Exposure estimate	10.5857 mg/m³
Risk Characterization Ratio (RCR)	0.814281
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC1_1: Subcategory: Glues, hobby use
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 240 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 10 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	1 uses per week
Room size	20 m3
Ventilation rate per hour	0.6
Temperature (Application)	20 °C

body weight	65 kg
Release area	200 cm²
	Release area increases over time
Release duration	10 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation
	Consumer - inhalation, long-term - systemic
Exposure estimate	2.8221 mg/m³
Risk Characterization Ratio (RCR)	0.217084
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC1_3: Subcategory: Glue from spray
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 240 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	1 uses per month
Room size	20 m3
Ventilation rate per hour	0.6
body weight	65 kg
Spray duration	170 sec
Risk Management Measures	
Consumer Measures	Ensure spraying away from persons.
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: Exposure to spray/dust
	Consumer - inhalation, long-term - systemic
Exposure estimate	0.0174 mg/m³
Risk Characterization Ratio (RCR)	0.001335
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC4: Anti-Freeze and De-icing products.

Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 1 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 1.2 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 20 min Relevant for inhalative exposure estimates
Room size	34 m3
Ventilation rate per hour	1.5
Temperature (Application)	20 °C
body weight	65 kg
Release area	60000 cm²
	Release area is constant
Release duration	20 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation
	Consumer - inhalation, short-term - systemic
Exposure estimate	0.1409 mg/m³
Risk Characterization Ratio (RCR)	0.000647
	The exposure calculation is based on a single use of the product.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC4: Anti-Freeze and De-icing products.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 3 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 10.2 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 5 min Relevant for inhalative exposure estimates
Room size	34 m3
Ventilation rate per hour	1.5
Temperature (Application)	20 °C
body weight	65 kg
Release area	100 cm²

	Release area is constant
Release duration	5 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation
	Consumer - inhalation, short-term - systemic
Exposure estimate	58.9168 mg/m³
Risk Characterization Ratio (RCR)	0.270261
	The exposure calculation is based on a single use of the product.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC4: Anti-Freeze and De-icing products.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 15 min Relevant for inhalative exposure estimates
Room size	34 m3
Ventilation rate per hour	1.5
body weight	65 kg
Spray duration	900 sec
Risk Management Measures	
Consumer Measures	Ensure spraying away from persons.
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: Exposure to spray/dust
	Consumer - inhalation, short-term - systemic
Exposure estimate	5.1461 mg/m³
Risk Characterization Ratio (RCR)	0.023606
	The exposure calculation is based on a single use of the product.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC9a_3, PC15_3: Subcategory: Aerosol spray can
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %

Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 20 min Relevant for inhalative exposure estimates
Room size	34 m3
Ventilation rate per hour	1.5
body weight	65 kg
Spray duration	900 sec
Risk Management Measures	
Consumer Measures	Ensure spraying away from persons.
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: Exposure to spray/dust
	Consumer - inhalation, short-term - systemic
Exposure estimate	37.6195 mg/m³
Risk Characterization Ratio (RCR)	0.172566
	The exposure calculation is based on a single use of the product.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC9a_1, PC15_1: Subcategory: Waterborne latex wall paint
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 2 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 70 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 60 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	2 uses per year
Room size	20 m3
Ventilation rate per hour	1.5
Temperature (Application)	20 °C
body weight	65 kg
Release area	150000 cm²
	Release area increases over time
Release duration	60 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation

	Consumer - inhalation, long-term - systemic
Exposure estimate	8.7728 mg/m³
Risk Characterization Ratio (RCR)	0.674833
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC9c: Finger paints
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 9 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	365 uses per year
body weight	16.3 kg
Uptake fraction oral	100 %
	Amount ingested 1.35 g Relevant for oral exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Oral model: direct intake, Uptake model: Uptake fraction
	Consumer - oral, long-term - systemic
Exposure estimate	7.454 mg/kg bw/day
Risk Characterization Ratio (RCR)	0.596319
	The calculation is based on the internal chronic dose.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC15: Non-metal-surface treatment products.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 20 min Relevant for inhalative exposure estimates
Room size	34 m3
Ventilation rate per hour	1.5
body weight	65 kg

Spray duration	900 sec
Risk Management Measures	
Consumer Measures	Ensure spraying away from persons.
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: Exposure to spray/dust
	Consumer - inhalation, short-term - systemic
Exposure estimate	37.6195 mg/m³
Risk Characterization Ratio (RCR)	0.172566
	The exposure calculation is based on a single use of the product.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC15: Non-metal-surface treatment products.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 2 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 70 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 60 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	2 uses per year
Room size	20 m3
Ventilation rate per hour	1.5
Temperature (Application)	20 °C
body weight	65 kg
Release area	150000 cm²
	Release area increases over time
Release duration	60 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation
	Consumer - inhalation, long-term - systemic
Exposure estimate	8.7728 mg/m³
Risk Characterization Ratio (RCR)	0.674833
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario

Use descriptors covered	PC15: Non-metal-surface treatment products.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 1 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 60 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 60 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	1 uses per year
Room size	20 m3
Ventilation rate per hour	0.6
Temperature (Application)	20 °C
body weight	65 kg
Release area	20000 cm²
	Release area increases over time
Release duration	60 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation
	Consumer - inhalation, long-term - systemic
Exposure estimate	0.0043 mg/m³
Risk Characterization Ratio (RCR)	0.000331
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC18: Ink and Toners.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 132 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	365 uses per year
body weight	70 kg
Release duration	132 min

	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - constant rate
	Consumer - inhalation, long-term - systemic
Exposure estimate	6.1771 mg/m³
Risk Characterization Ratio (RCR)	0.475164
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC23: Leather tanning, dye, finishing, impregnation and care products.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 240 min Relevant for inhalative exposure estimates
Room size	58 m3
Ventilation rate per hour	0.5
body weight	65 kg
Spray duration	180 sec
Risk Management Measures	
Consumer Measures	Ensure spraying away from persons.
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: Exposure to spray/dust
	Consumer - inhalation, short-term - systemic
Exposure estimate	0.5022 mg/m³
Risk Characterization Ratio (RCR)	0.002303
	The exposure calculation is based on a single use of the product.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC13_1, PC24_1: Subcategory: Liquids
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Vapour pressure of the substance	300 Pa

during use	
Duration and Frequency of activity	Exposure duration: 60 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	1 uses per year
body weight	65 kg
Release duration	60 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - constant rate
	Consumer - inhalation, long-term - systemic
Exposure estimate	8.6096 mg/m³
Risk Characterization Ratio (RCR)	0.662278
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC24_2: Subcategory: Pastes
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 60 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	1 uses per year
Room size	20 m3
Ventilation rate per hour	0.6
body weight	65 kg
	Amount per use 30 g Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: evaporation model - instantaneous release
	Consumer - inhalation, long-term - systemic
Exposure estimate	4.7003 mg/m³
Risk Characterization Ratio (RCR)	0.361559
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC23_2, PC31_2: Subcategory: Polishes, spray (furniture, shoes)
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 10 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 240 min Relevant for inhalative exposure estimates
Room size	58 m3
Ventilation rate per hour	0.5
body weight	65 kg
Spray duration	180 sec
Risk Management Measures	
Consumer Measures	Ensure spraying away from persons.
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: Exposure to spray/dust
	Consumer - inhalation, short-term - systemic
Exposure estimate	0.5022 mg/m³
Risk Characterization Ratio (RCR)	0.002303
	The exposure calculation is based on a single use of the product.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

Contributing exposure scenario	
Use descriptors covered	PC31: Polishes and Wax Blends.
Operational conditions	
Concentration of the substance	3-Methylbutan-1-ol Content: >= 0 % - <= 5 %
Vapour pressure of the substance during use	300 Pa
Duration and Frequency of activity	Exposure duration: 240 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	Application duration: 90 min Relevant for inhalative exposure estimates
Duration and Frequency of activity	1 uses per month
Room size	58 m3
Ventilation rate per hour	0.5
Temperature (Application)	20 °C
body weight	65 kg

Release area	220000 cm²
	Release area increases over time
Release duration	90 min
	Relevant for inhalative exposure estimates
Exposure estimate and reference to its source	
Assessment method	EASY TRA v4.2, ConsExpo v4.1, Inhalation model: exposure to vapour - evaporation
	Consumer - inhalation, long-term - systemic
Exposure estimate	7.1683 mg/m³
Risk Characterization Ratio (RCR)	0.551407
	The exposure calculation is based on the mean concentration on the day of exposure.
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp	

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