

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

1.1 Product identifier

Trade name: **Haftvermittler / Adhesion Promoter V40**

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

No further relevant information available.

Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Product category PC1 Adhesives, sealants

Process category PROC10 Roller application or brushing

Environmental release category

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Application of the substance / the mixture Adhesion promoter

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

merz+benteli ag

Freiburgstrasse 616

CH-3172 Niederwangen/Bern

Further information obtainable from:

merz+benteli ag: Telefon: +41(0)31 980 48 48

E-mail: info@merz-benteli.ch

1.4 Emergency telephone number:

merz+benteli ag: Telefon: +41(0)31 980 48 48

Nationale Notfallnummer Schweiz: Telefon: +41 145

Schweiz.Toxikologisches Informationszentrum: Telefon: +41(0)44 251 51 51

E-mail: info@toxi.ch

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2

H225 Highly flammable liquid and vapour.



GHS08 health hazard

Asp. Tox. 1

H304 May be fatal if swallowed and enters airways.



GHS09 environment

Aquatic Chronic 2

H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2

H315 Causes skin irritation.

STOT SE 3

H336 May cause drowsiness or dizziness.

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- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS07 GHS08 GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**
C7-C10 Isoalkane
toluene
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 90622-56-3 EINECS: 292-458-5 Index number: 002-924-58-5 Reg.nr.: 01-2119471305-42-xxxx	C7-C10 Isoalkane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	≥75-≤100%
CAS: 1330-20-7 Index number: 601-022-00-9	xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	≥2.5-<10%
CAS: 108-88-3 EINECS: 203-625-9 Index number: 601-021-00-3 Reg.nr.: 01-2119471310-51-xxxx	toluene Flam. Liq. 2, H225; Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336	≥3-<5%
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4 Reg.nr.: 01-2119489370-35-xxxx	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332	1-<5%

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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures

- **General information:**

Take affected persons out into the fresh air.
Immediately remove any clothing soiled by the product.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.
Wash with plenty of water or water and soap. In cases of sickness seek medical advice (show label if possible).

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:**

Do not induce vomiting; call for medical help immediately.
Rinse out mouth and then drink plenty of water.

- **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media

- **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
CO₂, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- 5.2 Special hazards arising from the substance or mixture

Soot formation during the combustion.

- 5.3 Advice for firefighters

- **Protective equipment:** Wear self-contained respiratory protective device.

- **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- 6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Keep contaminated washing water and dispose of appropriately.

Prevent from spreading (e.g. by damming-in or oil barriers).

- 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**
 Keep ignition sources away - Do not smoke.
 Fumes can combine with air to form an explosive mixture.
 Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 Store product only in tightly closed original containers.
 Store in a cool and dry location.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
 Store in cool, dry conditions in well sealed receptacles.
 Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

108-88-3 toluene

AGW (Germany)	190 mg/m ³ , 50 ppm 4(II);DFG, EU, H, Y
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1330-20-7 xylene

AGW (Germany)	440 mg/m ³ , 100 ppm 2(II);DFG, EU, H
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71-36-3 butan-1-ol

AGW (Germany)	310 mg/m ³ , 100 ppm 1(I);DFG, Y
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- **Ingredients with biological limit values:**

108-88-3 toluene

BGW (Germany)	1.0 mg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Toluol
	3.0 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: bei Langzeitexposition: Nach mehreren vorangegangenen Schichten, Expositionsende bzw. Schichtende Parameter: o-Kresol

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1330-20-7 xylene

BGW (Germany)	1.5 mg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Xylol
	2 g/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Methylhippur-(Tolur-)Säure

71-36-3 butan-1-ol

BGW (Germany)	2 mg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: vor nachfolgender Schicht Parameter: 1-Butanol
	10 mg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: 1-Butanol

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working.

Wash hands before breaks and at the end of work.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter AX

Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**



Protective gloves recommend

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.5 mm

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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 · **Eye protection:**


Tightly sealed goggles

 · **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

 · **9.1 Information on basic physical and chemical properties**

 · **General Information**

 · **Appearance:**

Form:	Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined.

 · **pH-value:** Not determined.

 · **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	110 °C

 · **Flash point:** 6 °C

 · **Flammability (solid, gas):** Not determined.

 · **Ignition temperature:** >200 °C

 · **Decomposition temperature:** Not determined.

 · **Auto-ignition temperature:** Product is not selfigniting.

 · **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

 · **Explosion limits:**

Lower:	0.7 Vol %
Upper:	8.3 Vol %

 · **Oxidising properties** Not determined.

 · **Vapour pressure at 20 °C:** 16.3 hPa

 · **Density at 20 °C:** 0.75 g/cm³

 · **Relative density** Not determined.

 · **Vapour density** Not determined.

 · **Evaporation rate** Not determined.

 · **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

 · **Partition coefficient: n-octanol/water:** Not determined.

 · **Viscosity:**

Dynamic: Not determined.

 · **Solvent content:**

VOC (EC) 94,13 %

 · **9.2 Other information** No further relevant information available.

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SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Forms explosive gas mixture with air.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Avoid contact with other chemicals.
- **10.6 Hazardous decomposition products:** Possible in traces.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

1330-20-7 xylene

Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	27.6 mg/l (rat)

90622-56-3 C7-C10 Isoalkane

Oral	LD50	>10,000 mg/kg (rat)
Dermal	LD50	>3,000 mg/kg (rat)
Inhalative	LC50/4 h	21 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard**
May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**
1330-20-7 Xylene
LC50/96h: 3.77 mg/L (fish)
EC50/48h: 7.4 mg/L (daphnia magna)
EC50/72h: 10 mg/L (skeletonema costatum)
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

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Danger to drinking water if even small quantities leak into the ground.
The product should not be released into the aquatic environment without preliminary treatments (biological purification plant).

- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

08 04 99	wastes not otherwise specified
15 01 04	metallic packaging

· Uncleaned packaging:

- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· **ADR, IMDG, IATA** UN1993

· 14.2 UN proper shipping name

· **ADR** 1993 FLAMMABLE LIQUID, N.O.S. (TOLUENE, XYLENES), special provision 640D

· **IMDG** 1993 Flammable liquid, n.o.s. (Alkanes, C7-C10-Iso-), Marine Pollutant

· **IATA** 1993 Flammable liquid, n.o.s. (Alkanes, C7-C10-Iso-)

· 14.3 Transport hazard class(es)

· ADR, IMDG



· **Class** 3 Flammable liquids.

· **Label** 3

· IATA



· **Class** 3 Flammable liquids.

· **Label** 3

· 14.4 Packing group

· **ADR, IMDG, IATA** II

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- 14.5 Environmental hazards:	
- Marine pollutant:	Yes Symbol (fish and tree)
- Special marking (ADR):	Symbol (fish and tree)
- 14.6 Special precautions for user Warning: Flammable liquids.	
- Danger code (Kemler):	33
- EMS Number:	F-E,S-E
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.	
- Transport/Additional information:	
- ADR	
- Limited quantities (LQ)	1L
- Transport category	2
- Tunnel restriction code	D/E
- IMDG	
- Limited quantities (LQ)	1L
- UN "Model Regulation":	UN1993, FLAMMABLE LIQUID, N.O.S. (TOLUENE, XYLENES), special provision 640D, 3, II

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 48
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H361d Suspected of damaging the unborn child.
- H373 May cause damage to the hearing organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- **Sources** Not available
- *** Data compared to the previous version altered.**

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