



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

1.1 Product identifier

VM Multi plus, Comp. A
Article number: 0912001330A

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

1.2.1 Relevant uses

Adhesive mortar for fastening to concrete elements A-Component (Resin)

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company	Kellner & Kunz AG Boschstr. 37 4600 Wels / AUSTRIA Phone 0043-7242-484-0 Fax 0043-7242-484-924 Homepage www.reca.co.at E-mail info@reca.co.at
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Address enquiries to

Technical information	info@reca.co.at
Safety Data Sheet	sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body	+43 (0) 1 406 43 43 (24h)
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Skin Sens. 1: H317 May cause an allergic skin reaction.
 Eye Irrit. 2: H319 Causes serious eye irritation.

2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms



Signal word

WARNING

Contains:

Tetramethylene dimethacrylate
 2,2'-[(4-methylphenyl)imino]bisethanol

Hazard statements

H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.

Precautionary statements

P261 Avoid breathing vapours.
 P280 Wear protective gloves / eye protection / face protection.
 P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
 P337+P313 If eye irritation persists: Get medical advice / attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.

2.3 Other hazards

Human health dangers

Persons already sensitised to methacrylates may develop allergic reactions when using this product.

Environmental hazards

Does not contain any PBT or vPvB substances.

Other hazards

Further hazards were not determined with the current level of knowledge.



SECTION 3: Composition / Information on ingredients

Product-type:

3.2 The product is a mixture.

Range [%]	Substance
10 - <20	Tetramethylene dimethacrylate CAS: 2082-81-7, EINECS/ELINCS: 218-218-1, Reg-No.: 01-2119967415-30-XXXX GHS/CLP: Skin Sens. 1B: H317
1 - <10	Vinyltoluene CAS: 25013-15-4, EINECS/ELINCS: 246-562-2, Reg-No.: 01-2119622074-50-XXXX GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H332 - Eye Irrit. 2: H319 - Skin Irrit. 2: H315 - Asp. Tox. 1: H304 - Aquatic Chronic 3: H412
1 - <5	Quartz ($\leq 10\mu\text{m}$) CAS: 14808-60-7, EINECS/ELINCS: 238-878-4 GHS/CLP: STOT RE 1: H372
1 - <3	2,2'-[(4-methylphenyl)imino]bisethanol CAS: 3077-12-1, EINECS/ELINCS: 221-359-1, Reg-No.: 01-2120791684-40-XXXX GHS/CLP: Acute Tox. 4: H302 - Skin Sens. 1: H317 - Eye Dam. 1: H318 - Aquatic Chronic 3: H412

Comment on component parts

The quartz in this preparation is not available on foreseeable use.
Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Take off contaminated clothing and wash before reuse.

Inhalation

Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion

Get medical advice.
Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects
Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

foam, dry powder, water spray jet, carbon dioxide

Extinguishing media that must not be used

Full water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:
Carbon monoxide (CO)



5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.

Use self-contained breathing apparatus.

Fire residues must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Use personal protective equipment.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Take up mechanically.

Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).

Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.

Avoid contact with eyes and skin. Use personal protective equipment.

Do not eat, drink, smoke or take drugs at work.

Wash hands before breaks and after work.

Use barrier skin cream.

Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Prevent penetration into the ground.

Do not store together with food and animal food/diet.

Keep container in a well-ventilated place.

Keep container tightly closed.

Keep in a cool place. Store in a dry place.

Protect from atmospheric moisture and water.

Recommended storage temperature: 5 - 25 °C

7.3 Specific end use(s)

See product use, SECTION 1.2



SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
Quartz ($\leq 10\mu\text{m}$)
CAS: 14808-60-7, EINECS/ELINCS: 238-878-4
Long-term exposure: 0,15 mg/m ³ , HSE, NIOSH, OSHA
Vinyltoluene
CAS: 25013-15-4, EINECS/ELINCS: 246-562-2, Reg-No.: 01-2119622074-50-XXXX
Long-term exposure: 100 ppm, 491 mg/m ³
Short-term exposure (15-minute): 150 ppm, 736 mg/m ³

DNEL

Substance
Tetramethylene dimethacrylate, CAS: 2082-81-7
Industrial, dermal, Long-term - systemic effects: 4.2 mg/kg bw/day.
Industrial, inhalative, Long-term - systemic effects: 14.5 mg/m ³ .
general population, oral, Long-term - systemic effects: 2.5 mg/kg bw/day.
general population, dermal, Long-term - systemic effects: 2.5 mg/kg bw/day.
general population, inhalative, Long-term - systemic effects: 4.3 mg/m ³ .
2,2'-[(4-methylphenyl)imino]bisethanol, CAS: 3077-12-1
Industrial, dermal, Long-term - systemic effects: 470 $\mu\text{g/kg}$ bw/day.
Industrial, inhalative, Long-term - systemic effects: 3,29 mg/m ³ .
general population, oral, Long-term - systemic effects: 160 $\mu\text{g/kg}$ bw/day.
general population, dermal, Long-term - systemic effects: 170 $\mu\text{g/kg}$ bw/day.
general population, inhalative, Long-term - systemic effects: 580 $\mu\text{g/m}^3$.

PNEC

Substance
Tetramethylene dimethacrylate, CAS: 2082-81-7
soil, 0.573 mg/kg.
sediment (seawater), 0.312 mg/kg.
sediment (freshwater), 3.12 mg/kg.
sewage treatment plants (STP), 2 mg/L.
seawater, 0.004 mg/L.
freshwater, 0.043 mg/L.
2,2'-[(4-methylphenyl)imino]bisethanol, CAS: 3077-12-1
soil, 8,8 $\mu\text{g/kg}$ soil dw.
sediment (seawater), 12,1 $\mu\text{g/kg}$ sediment dw.
sediment (freshwater), 121,4 $\mu\text{g/kg}$ sediment dw.
sewage treatment plants (STP), 10 mg/L.
seawater, 2,64 $\mu\text{g/L}$.
freshwater, 26,4 $\mu\text{g/L}$.



8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	safety glasses (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. >0,2 mm Nitrile rubber, >480 min (EN 374-1/-2/-3).
Skin protection	light protective clothing
Other	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	pasty
Color	light beige
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	none
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	1,73 (20 °C / 68,0 °F)
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Partition coefficient [n-octanol/water]	No information available.
Viscosity	No information available.
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Autoignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.

9.2 Other information

No information available.



SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

10.4 Conditions to avoid

See SECTION 7.2.

10.5 Incompatible materials

Strong oxidizing agent.

10.6 Hazardous decomposition products

No hazardous decomposition products known.



SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
dermal, Based on the available information, the classification criteria are not fulfilled.:
ATE-mix, oral, > 2000 mg/kg.
ATE-mix, inhalation (vapour), > 20 mg/l (4 h).
Substance
Vinyltoluene, CAS: 25013-15-4
LD50, oral, Rat: 4000 mg/kg (IUCLID).
LC50, inhalative, mouse: 3,02 mg/l/4h (IUCLID).
LC50, inhalative, Rat: 2500 ppm/8h (IUCLID).
Tetramethylene dimethacrylate, CAS: 2082-81-7
LD50, dermal, Rabbit: > 3000 mg/kg.
LD50, oral, Rat: > 5000 mg/kg OECD 401.
2,2'-[(4-methylphenyl)imino]bisethanol, CAS: 3077-12-1
LD50, dermal, Rat: >2000 mg/kg bw.
LD50, oral, Rat: 959 mg/kg bw.

Serious eye damage/irritation

Based on the available information, the classification criteria are fulfilled.
Irritant
Calculation method

Skin corrosion/irritation

Based on the available information, the classification criteria are not fulfilled.
Calculation method

Respiratory or skin sensitisation

Based on the available information, the classification criteria are fulfilled.
May cause an allergic skin reaction.
Calculation method

Specific target organ toxicity — single exposure

Based on the available information, the classification criteria are not fulfilled.

Specific target organ toxicity — repeated exposure

Based on the available information, the classification criteria are not fulfilled.
The contained dangerous materials are not freely available with foreseeable use.

Mutagenicity

Based on the available information, the classification criteria are not fulfilled.

Reproduction toxicity

Based on the available information, the classification criteria are not fulfilled.

Carcinogenicity

Based on the available information, the classification criteria are not fulfilled.

Aspiration hazard

Based on the available information, the classification criteria are not fulfilled.
Calculation method

General remarks

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials. Toxicological data of complete product are not available.



SECTION 12: Ecological information

12.1 Toxicity

Product
Based on the available information, the classification criteria are not fulfilled.:
Substance
Vinyltoluene, CAS: 25013-15-4
LC50, (96h), Pimephales promelas: 23,4 mg/l (IUCLID).
Tetramethylene dimethacrylate, CAS: 2082-81-7
LC50, (48h), Leuciscus idus: 32,5 mg/l DIN 38412.
EC10, (16h), Pseudomonas putida: > 1000 mg/l.
2,2'-[(4-methylphenyl)imino]bisethanol, CAS: 3077-12-1
LC50, (96h), fish: 100 mg/L.
EC50, (72h), Algae: 100 mg/L.
EC50, (48h), Invertebrates: 26.4 mg/L.

12.2 Persistence and degradability

Behaviour in environment compartments No information available.

Behaviour in sewage plant No information available.

Biological degradability No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

Do not discharge product unmonitored into the environment.

Ecotoxicological data are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material c It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.

Waste no. (recommended)

080409*

Contaminated packaging

Untaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended)

150110*
150102



SECTION 14: Transport information

14.1 UN number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

**14.5 Environmental hazards**

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

not applicable

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2019)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- **Observe employment restrictions for people** Observe employment restrictions for young people.

- **VOC (2010/75/CE)** 2,8% (DIN EN ISO 11890-2)

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information**16.1 Hazard statements (SECTION 03)**

H318 Causes serious eye damage.
 H302 Harmful if swallowed.
 H372 Causes damage to organs through prolonged or repeated exposure.
 H412 Harmful to aquatic life with long lasting effects.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H226 Flammable liquid and vapour.
 H317 May cause an allergic skin reaction.



16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
 Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)



Modified position

SECTION 3 been added: 2,2'-[(4-methylphenyl)imino]bisethanol
SECTION 3 deleted: 2,2'-[(4-methylphenyl)imino]bisethanol
SECTION 2 been added: 2,2'-[(4-methylphenyl)imino]bisethanol
SECTION 3 deleted: 1,4-naphthoquinone
SECTION 2 deleted: P273 Avoid release to the environment.
SECTION 2 deleted: H412 Harmful to aquatic life with long lasting effects.
SECTION 2 deleted: P501 Dispose of contents/container in accordance with local/national regulation.
SECTION 2 been added: P261 Avoid breathing vapours.
SECTION 2 been added: P337+P313 If eye irritation persists: Get medical advice / attention.
SECTION 2 been added: P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
SECTION 2 deleted: Aquatic Chronic 3
SECTION 7 been added: Avoid contact with eyes and skin. Use personal protective equipment.
SECTION 8 been added: In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.
SECTION 8 deleted: Nitrile rubber, >480 min (EN 374-1/-2/-3).
SECTION 8 deleted: If ventilation is insufficient, wear respiratory protection.
SECTION 9 been added: none
SECTION 9 deleted: (23°C / 73,4°F)
SECTION 9 deleted:
SECTION 9 deleted: No information available.
SECTION 9 deleted: partially miscible
SECTION 9 been added: insoluble
SECTION 9 been added: (20 °C / 68,0 °F)
SECTION 16 deleted: Calculation method

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