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

1.1 Product identifier

MD-UV Kleber
Article number MUV

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

1.2.1 Relevant uses

Adhesive

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Marston Domsel GmbH
Bergheimer Str. 15
53909 Zülpich / GERMANY
Phone 0 22 52 / 94 15 - 0
Fax 0 22 52 / 17 44
Homepage www.marston-domsel.de
E-mail info@marston-domsel.de

Address enquiries to

Technical information info@marston-domsel.de

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body +49 (0)89-19240 (24h) (english)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Eye Dam. 1: H318 Causes serious eye damage.
Skin Irrit. 2: H315 Causes skin irritation.
Skin Sens. 1: H317 May cause an allergic skin reaction.
STOT SE 3: H335 May cause respiratory irritation.

2.2 Label elements

The product is classified and required to be labelled in accordance with EC-Directives

Hazard pictograms

Signal word DANGER

Contains: Methacrylic acid, monoester with Propan-1,2-diole
exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl methacrylate
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane
2,2'-Ethylenedioxydiethyl dimethacrylate
Acrylic acid
2-Carboxyethyl acrylate

Hazard statements
H318 Causes serious eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P405 Store locked up.
P501 Dispose of contents / container to in accordance with local / regional / national / international regulation.

2.3 Other hazards

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

SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

Range [%]	Substance
10 - 30	exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl methacrylate
	CAS: 7534-94-3, EINECS/ELINCS: 231-403-1, EU-INDEX: 607-134-00-4
	GHS/CLP: Eye Irrit. 2: H319 - Skin Irrit. 2: H315 - STOT SE 3: H335
10 - 30	Methacrylic acid, monoester with Propan-1,2-diole
	CAS: 27813-02-1, EINECS/ELINCS: 248-666-3
	GHS/CLP: Eye Irrit. 2: H319 - Skin Sens. 1: H317
1 - 10	2,2'-Ethylenedioxydiethyl dimethacrylate
	CAS: 109-16-0, EINECS/ELINCS: 203-652-6
	GHS/CLP: Skin Sens. 1: H317
1 - 10	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane
	CAS: 2530-83-8, EINECS/ELINCS: 219-784-2
	GHS/CLP: Eye Dam. 1: H318
1 - < 5	2-Carboxyethyl acrylate
	CAS: 24615-84-7, EINECS/ELINCS: 246-359-9
	GHS/CLP: Skin Corr. 1B: H314
1 - < 5	Acrylic acid
	CAS: 79-10-7, EINECS/ELINCS: 201-177-9, EU-INDEX: 607-061-00-8
	GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H332 - Acute Tox. 4: H312 - Acute Tox. 4: H302 - Skin Corr. 1A: H314 - Aquatic Acute 1: H400 - STOT SE 3: H335

Comment on component parts 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
Change soaked clothing.

Inhalation
Ensure supply of fresh air.

Skin contact
In case of contact with skin wash off immediately with plenty of 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
Seek medical advice immediately.
Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to the doctor.

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

Nitrogen oxides (NOx).
Risk of formation of toxic pyrolysis products.
Carbon monoxide (CO)

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Wear full protective suit.

Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water 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 clothing.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
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.
Open and handle container with care.

Keep away from sources of ignition - refrain from smoking.

Contaminated work clothing should not be allowed out of the workplace.
Do not eat, drink or smoke when using this product.
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.

Do not store together with oxidizing agents.
Do not store together with acids.

Keep container in a well-ventilated place.
Keep container tightly closed.
Store in a dry place.
Recommended storage temperature: <25 °C.
Protect from sun.

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)

Range [%]	Substance
1 - < 5	Acrylic acid
	CAS: 79-10-7, EINECS/ELINCS: 201-177-9, EU-INDEX: 607-061-00-8
	Long-term exposure: 2 ppm, A4; ACGIH2006

8.2 Exposure controls

Additional advice on system design
Ensure adequate ventilation on workstation.

Eye protection
Safety glasses.

Hand protection
The details concerned are recommendations. Please contact the glove supplier for further information.
In full contact:
Butyl rubber, >480 min (EN 374).
In splash contact
Nitrile rubber, >480 min (EN 374).

Skin protection
Alkali-resistant protective clothing.

Other
Avoid contact with eyes and skin.
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
Breathing apparatus in the event of aerosol or mist formation.
Short term: filter apparatus, filter A.

Thermal hazards
not applicable

Delimitation and monitoring of the environmental exposition
See SECTION 6+7.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	viscous
Color	clear
Odor	characteristic
Odour threshold	not determined
pH-value	not determined
pH-value [1%]	not applicable
Boiling point [°C]	not determined not determined
Flash point [°C]	>93
Flammability (solid, gas) [°C]	not determined
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidizing properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	1,0 - 1,1
Bulk density [kg/m³]	not applicable
Solubility in water	partially soluble
Partition coefficient [n-octanol/water]	not determined
Viscosity	1200 - 2000 mPas (25°C)
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Autoignition temperature [°C]	not determined
Decomposition temperature [°C]	not determined

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 strong oxidizing agents and strong acids.
Polymerization may occur at elevated temperature.

10.4 Conditions to avoid

See SECTION 7.2.
Strong heating.

10.5 Incompatible materials

Various metals.

10.6 Hazardous decomposition products

Irritant gases/vapours.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Range [%]	Substance
1 - < 5	Acrylic acid, CAS: 79-10-7
	LD50, dermal, Rabbit: 280 mg/kg (IUCLID).
	LD50, oral, Rat: 1250 mg/kg (IUCLID).
	LD50, oral, Rat: 360 mg/kg (IUCLID).
	LD50, oral, Rat: 193 mg/kg (IUCLID).
	LC50, inhalative, Rat: 3,6 mg/l/4h (IUCLID).
	LC50, inhalative, Rat: 1202-3840 ppm/4h (IUCLID).
10 - 30	Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1
	LD50, dermal, Rabbit: > 5000 mg/kg (IUCLID).
	LD50, oral, Rat: > 4000 mg/kg (IUCLID).
1 - 10	2,2'-Ethylenedioxydiethyl dimethacrylate, CAS: 109-16-0
	LD50, oral, Rat: > 2000 mg/kg (Lit.).

Serious eye damage/irritation	Toxicological data of complete product are not available. Risk of serious damage to eyes. Calculation method
Skin corrosion/irritation	Toxicological data of complete product are not available. Irritant Calculation method
Respiratory or skin sensitisation	Toxicological data of complete product are not available. May produce an allergic reaction. Calculation method
Specific target organ toxicity — single exposure	Toxicological data of complete product are not available. May cause respiratory irritation. Calculation method
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
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.
General remarks	Toxicological data of complete product are not available. 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.

SECTION 12: Ecological information

12.1 Toxicity

Range [%]	Substance
1 - < 5	Acrylic acid, CAS: 79-10-7
	LC50, (96h), Brachidanio rerio: 222 mg/l (IUCLID).
	LC50, (96h), Salmo gairdneri: 27 mg/l (IUCLID).
	EC50, (72h), Chlorella vulgaris: 0,63 mg/l (IUCLID).
	EC50, (72h), Scenedesmus subspicatus: 0,04 mg/l (IUCLID).
	EC50, (48h), Daphnia magna: 95 mg/l (IUCLID).
	EC50, (24h), Daphnia magna: 54 mg/l (IUCLID).
10 - 30	Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1
	LC50, (48h), Leuciscus idus: 493 mg/L (IUCLID).
	EC10, (16h), Pseudomonas putida: 1140 mg/l (IUCLID).

12.2 Persistence and degradability

Behaviour in environment compartments not determined

Behaviour in sewage plant not applicable

Biological degradability not applicable

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. 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

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150110*

SECTION 14: Transport information

14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

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)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

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); 1999/13; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2015).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (1999/13/CE)	not applicable

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H400 Very toxic to aquatic life.
H314 Causes severe skin burns and eye damage.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H226 Flammable liquid and vapour.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

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
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
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
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

Customs Tariff not determined

Classification procedure
Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)
Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
STOT SE 3: H335 May cause respiratory irritation. (Calculation method)

Modified position none