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

1.1 Product identifier

MD-Schraubensicherung 581
Article number: MSS.581

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

1.2.1 Relevant uses

Adhesive
Sealing material

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 +49 (0) 22 52 94 15 0
Fax +49 (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 [REGULATION (EC) No 1272/2008]

Eye Irrit. 2: H319 Causes serious eye 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 required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms

Signal word WARNING

Contains: 2,2'-Ethylenedioxydiethyl dimethacrylate

Methacrylic acid, monoester with Propan-1,2-diole

Cumene hydroperoxide

2'-Phenylacetohydrazide

Hazard statements

H319 Causes serious eye 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.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/national 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
30 - 55	2,2'-Ethylenedioxydiethyl dimethacrylate
	CAS: 109-16-0, EINECS/ELINCS: 203-652-6, Reg-No.: 01-2119969287-21
	GHS/CLP: Skin Sens. 1: H317
25 - 40	Methacrylic acid, monoester with Propan-1,2-diole
	CAS: 27813-02-1, EINECS/ELINCS: 248-666-3, Reg-No.: 01-2119490226-37-XXXX
	GHS/CLP: Eye Irrit. 2: H319 - Skin Sens. 1: H317
≤ 1,5	Cumene hydroperoxide
	CAS: 80-15-9, EINECS/ELINCS: 201-254-7, EU-INDEX: 617-002-00-8
	GHS/CLP: Org. Perox. E: H242 - Acute Tox. 3: H331 - Acute Tox. 4: H302 H312 - STOT RE 2: H373 - Skin Corr. 1B: H314 - Aquatic Chronic 2: H411 - STOT SE 3: H335
0,1 - < 0,5	2'-Phenylacetohydrazide
	CAS: 114-83-0, EINECS/ELINCS: 204-055-3
	GHS/CLP: Acute Tox. 3: H301 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Eye Irrit. 2: H319 - STOT SE 3: H335
0,01 - < 0,05	1,4-Dihydroxybenzene
	CAS: 123-31-9, EINECS/ELINCS: 204-617-8, EU-INDEX: 604-005-00-4
	GHS/CLP: Carc. 2: H351 - Muta. 2: H341 - Acute Tox. 4: H302 - Eye Dam. 1: H318 - Skin Sens. 1: H317 - Aquatic Acute 1: H400, M = 10

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 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.
Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects

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

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

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.
Take up residues with absorbent material (e.g. sand).

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.

Do not eat, drink or smoke when using this product.
Wash hands before breaks and after work.
Use barrier skin cream.
Contaminated work clothing should not be allowed out of the workplace.
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)

not applicable

DNEL

Substance
Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1
Industrial, dermal, Long-term - systemic effects: 4.2 mg/kg bw/d (AF=72).
Industrial, inhalative, Long-term - systemic effects: 14.7 mg/m³ (AF=18).
general population, inhalative, Long-term - systemic effects: 8.8 mg/m³ (AF=30).
general population, oral, Long-term - systemic effects: 2.5 mg/kg bw/d (AF=120).
general population, dermal, Long-term - systemic effects: 2.5 mg/kg bw/d (AF=120).
2,2'-Ethylenedioxydiethyl dimethacrylate, CAS: 109-16-0
Industrial, dermal, Long-term - systemic effects: 13.9 mg/kg bw/d (AF=72).
Industrial, inhalative, Long-term - systemic effects: 48.5 mg/m³ (AF=18).
general population, oral, Long-term - systemic effects: 8.33 mg/kg bw/d (AF=120).
general population, inhalative, Long-term - systemic effects: 14.5 mg/m³ (AF=69).
general population, dermal, Long-term - systemic effects: 8.33 mg/kg bw/d (AF=120).

PNEC

Substance
Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1
soil, 0.727 mg/kg dw.
sediment (seaater), 6.28 mg/kg dw.
sediment (freshwater), 6.28 mg/kg dw.
sewage treatment plants (STP), 10 mg/L (AF=10).
seawater, 0.904 mg/L (AF=50).
freshwater, 0.904 mg/L (AF=50).
2,2'-Ethylenedioxydiethyl dimethacrylate, CAS: 109-16-0
soil, 0.027 mg/kg dw.
sediment (seaater), 0.018 mg/kg dw.
sediment (freshwater), 0.185 mg/kg dw.
sewage treatment plants (STP), 1.7 mg/L (AF=10).
seawater, 0.002 mg/L (AF=10 000).
freshwater, 0.016 mg/L (AF=1000).

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. In full contact: > 0,4 mm/ Butyl rubber, >480 min (EN 374-1/-2/-3). In splash contact: > 0,4 mm/ Nitrile rubber, >480 min (EN 374-1/-2/-3).
Skin protection	Protective overalls.
Other	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. Avoid contact with eyes and skin.
Respiratory protection	Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, filter A. (DIN EN 14387)
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Comply with applicable environmental regulations limiting discharge to air, water and soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	pasty
Color	various
Odor	characteristic
Odour threshold	No information available.
pH-value	No information available.
pH-value [1%]	No information available.
Boiling point [°C]	> 240
Flash point [°C]	96
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	ca. 1,1
Bulk density [kg/m³]	not applicable
Solubility in water	partially soluble
Partition coefficient [n-octanol/water]	No information available.
Viscosity	8 000 - 15 000 cP (25°C)
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Autoignition temperature [°C]	> 400
Decomposition temperature [°C]	No information available.

9.2 Other information

Temperature resistance: -55 - 150 °C

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

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

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

Substance
1,4-Dihydroxybenzene, CAS: 123-31-9
LD50, dermal, Rat: > 900 mg/kg.
LD50, oral, Rat: 302 mg/kg.
Cumene hydroperoxide, CAS: 80-15-9
LD50, oral, Rat: 382 mg/kg (IUCLID).
LC50, inhalative, Rat: 1,37 mg/l/4h (GESTIS).
LC50, inhalative, Rat: 220 ppm/4h (IUCLID).
LDLo, dermal, Rat: 500 mg/kg (IUCLID).
Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1
LD50, dermal, Rabbit: > 5000 mg/kg.
LD50, oral, Rat: > 2000 mg/kg (OECD 401).
2'-Phenylacetohydrazide, CAS: 114-83-0
ATE, oral, 100 mg/kg.
2,2'-Ethylenedioxydiethyl dimethacrylate, CAS: 109-16-0
LD50, oral, Rat: 2000 - 5000 mg/kg bw.
LD50, dermal, mouse: > 2000 mg/kg bw.

Serious eye damage/irritation
Toxicological data of complete product are not available.
Irritant
Calculation method

Skin corrosion/irritation
Toxicological data of complete product are not available.
No classification.
Calculation method

Respiratory or skin sensitisation
Toxicological data of complete product are not available.
May cause an allergic skin 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 available data, the classification criteria are not met.

Mutagenicity
Based on available data, the classification criteria are not met.

Reproduction toxicity
Based on available data, the classification criteria are not met.

Carcinogenicity
Based on available data, the classification criteria are not met.

Aspiration hazard
Based on available data, the classification criteria are not met.

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

Substance
1,4-Dihydroxybenzene, CAS: 123-31-9
LC50, (96h), Pimephales promelas: 0,044 mg/l (IUCLID).
EC50, (24h), Daphnia magna: 0,12.
IC50, (72h), Pseudokirchneriella subcapitata: 0,335 mg/l (IUCLID).
EL50, Bacteria: 0,038 mg/l/30min (IUCLID).
Cumene hydroperoxide, CAS: 80-15-9
LC50, (96h), Oncorhynchus mykiss: 3,9 mg/l (IUCLID).
LC50, (48h), Leuciscus idus: 17 mg/l (IUCLID).
EC50, (24h), Daphnia magna: 7 mg/l (IUCLID).
EC10, Pseudomonas putida: 103 mg/l/18h (IUCLID).
Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1
LC50, (48h), Leuciscus idus: 493 mg/l (DIN 38412).
EC50, (48h), Daphnia magna: 380 mg/l (OECD 202).
EC50, (72h), Pseudokirchneriella subcapitata: 97,2 mg/l (OECD 201).
NOEC, (21d), Daphnia magna: 24,1 mg/l (OECD 202).
NOEC, (72h), Pseudokirchneriella subcapitata: 97,2 mg/l (OECD 201).
2,2'-Ethylenedioxydiethyl dimethacrylate, CAS: 109-16-0
LC50, (96h), Brachidanio rerio: 16.4 mg/L.
EC50, (21d), Daphnia magna: 51.9 mg/L.
EC50, (72h), Pseudokirchneriella subcapitata: > 100 mg/L.

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not applicable
Biological degradability	The product is not biodegradable.

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

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 (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2018).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	0%

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 03)

H400 Very toxic to aquatic life.
H318 Causes serious eye damage.
H302 Harmful if swallowed.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H315 Causes skin irritation.
H301 Toxic if swallowed.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.
H314 Causes severe skin burns and eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H302+H312 Harmful if swallowed or in contact with skin.
H331 Toxic if inhaled.
H242 Heating may cause a fire.
H319 Causes serious eye irritation.
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

Customs Tariff not determined

Classification procedure
Eye Irrit. 2: H319 Causes serious eye 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