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

1.1 Product identifier

MD-MS Polymer grau (Art.-Nr. MMS.G)

MD-MS Polymer schwarz (Art.-Nr. MMS.S)

MD-MS Polymer weiß (Art.-Nr. MMS.W)

MD-MS Polymer blau Pool Flex (Art.-Nr. MMS.B)

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 +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]

No classification.

2.2 Label elements

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

Hazard pictograms none

Signal word none

Hazard statements none

Precautionary statements none

Special labelling EUH210 Safety data sheet available on request.
EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

Contains: N-(3-(Trimethoxysilyl)propyl)ethylenediamine, Trimethoxyvinylsilane. EUH208 May produce an allergic reaction.

2.3 Other hazards

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

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
0,1 - < 2,5	Titanium dioxide (<10µm)
	CAS: 13463-67-7, EINECS/ELINCS: 236-675-5, EU-INDEX: 022-006-002
	GHS/CLP: Carc. 2: H351
1 - < 2,5	Trimethoxyvinylsilane
	CAS: 2768-02-7, EINECS/ELINCS: 220-449-8, EU-INDEX: 014-049-00-0, Reg-No.: 01-2119513215-52-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H332 - Skin Sens. 1B: H317
0,1 - < 1	N-(3-(Trimethoxysilyl)propyl)ethylenediamine
	CAS: 1760-24-3, EINECS/ELINCS: 217-164-6
	GHS/CLP: Eye Dam. 1: H318 - Skin Sens. 1: H317 - Aquatic Chronic 3: H412

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.
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.
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

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to your doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media All extinguishing media are suitable but method must take into account the surrounding area to minimize dispersion.

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.

5.3 Advice for firefighters

Use self-contained breathing apparatus.

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

Use personal protective clothing.
Ensure adequate ventilation.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).
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.

Wash hands before breaks and after work.
Use barrier skin cream.
Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Prevent penetration into the ground.

Do not store together with oxidizing agents.

Protect from heat/overheating.
Protect from sun.
Keep in a well-ventilated place.
Keep container tightly closed.

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
Titanium dioxide (<10µm)
CAS: 13463-67-7, EINECS/ELINCS: 236-675-5, EU-INDEX: 022-006-002
Long-term exposure: 4 mg/m³, respirable; total inhalable: TWA=10 mg/m³
Methanol
CAS: 67-56-1, EINECS/ELINCS: 200-659-6, EU-INDEX: 603-001-00-X
Long-term exposure: 200 ppm, 266 mg/m³, Sk
Short-term exposure (15-minute): 250 ppm, 333 mg/m³
Calcium carbonate
CAS: 471-34-1, EINECS/ELINCS: 207-439-9
Long-term exposure: 10 mg/m³, inhalable dust

Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
Methanol
CAS: 67-56-1, EINECS/ELINCS: 200-659-6, EU-INDEX: 603-001-00-X
Eight hours: 200 ppm, 260 mg/m³, H

DNEL

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
Industrial, inhalative, Acute - systemic effects, 260 mg/m³
Industrial, dermal, Long-term - systemic effects, 3,9 mg/kg bw/day
Industrial, inhalative, Long-term - systemic effects, 27,6 mg/m³
general population, oral, Long-term - systemic effects, 0,3 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 7,8 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 6,7 mg/m³

PNEC

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
sediment (seawater), 0,15 mg/kg dw
sediment (freshwater), 1,5 mg/kg dw
seawater, 40 µg/L
soil, 0.06 mg/kg dw
freshwater, 400 µg/L

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
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, >120 min (EN 374-1/-2/-3).
Skin protection	not applicable
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	Respiratory protection mask in the event of high concentrations.
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

Physical state	pasty solid
Color	various
Odor	characteristic
Odour threshold	not applicable
pH-value	No information available.
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	No information available.
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/cm³]	1,5
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	immiscible
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	No information available.
Kinematic viscosity	No information available.
Relative vapour density	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature [°C]	not applicable
Particle characteristics	No information available.

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Product can hydrolyse.

10.4 Conditions to avoid

See SECTION 7.2.
Strong heating.
Sensitive to moisture.
Product can hydrolyse.

10.5 Incompatible materials

Strong acids.
Strong bases.

10.6 Hazardous decomposition products

Contact with moisture liberates Methanol.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Product
LD50, oral, Rat, > 5000 mg/kg, OECD 425

Substance
N-(3-(Trimethoxysilyl)propyl)ethylenediamine, CAS: 1760-24-3
LD50, oral, Rat, 2413 mg/kg (OECD 401)
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, oral, Rat, 7120 mg/kg (OECD TG 401)
NOAEL, oral, Rat, < 62,5 mg/kg (28 d) (OECD TG 422)
Titanium dioxide (<10µm), CAS: 13463-67-7
LD50, oral, Rat, >5000 mg/kg (OECD 425)
NOAEL, oral, Rat, 3500 mg/kg/d (90d)

Acute dermal toxicity

Product
LC50, dermal, Rabbit, > 5000 mg/kg

Substance
N-(3-(Trimethoxysilyl)propyl)ethylenediamine, CAS: 1760-24-3
LD50, dermal, Rat, 2009 mg/kg (OECD 402)
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, dermal, Rabbit, 3259 mg/kg bw
Titanium dioxide (<10µm), CAS: 13463-67-7
LD50, dermal, Rabbit, >5000 mg/kg

Acute inhalational toxicity

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

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, inhalative, Rat, 16,8 mg/l (4 h) (OECD TG 403)
NOAEL, inhalative, Rat, 0,058 mg/l (98 d)
Titanium dioxide (<10µm), CAS: 13463-67-7
LC50, inhalative, Rat, >6,8 mg/l/4h
NOAEC, inhalative, Rat, 10 mg/m³ (90d)

Serious eye damage/irritation

Toxicological data of complete product are not available.
No classification.
Calculation method

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
Eye, Rabbit, OECD 405, 24h, non-irritating
Titanium dioxide (<10µm), CAS: 13463-67-7
no adverse effect observed

Skin corrosion/irritation

Toxicological data of complete product are not available.
No classification.
Calculation method

Product
cutan, Rabbit, negativ, OECD 404
Eye, Rabbit, negativ, OECD 405

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
dermal, Rabbit, 24h, non-irritating
Titanium dioxide (<10µm), CAS: 13463-67-7
no adverse effect observed

Respiratory or skin sensitisation

Toxicological data of complete product are not available.
May produce an allergic reaction.
On basis of test data

Product
dermal, mouse, negativ, OECD 429

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
dermal, ECHA, sensitising
Titanium dioxide (<10µm), CAS: 13463-67-7
no adverse effect observed

Specific target organ toxicity — single exposure

Toxicological data of complete product are not available.
No classification.
Calculation method

Specific target organ toxicity — repeated exposure

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

Product
NOAEL, oral, Rat, 3500 mg/kg/d
NOAEC, inhalative, Rat, 10 mg/m³

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, inhalation (vapour), Rat, 0,058 mg/kg, OECD 413

Mutagenicity

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

Product
mouse, negativ, OECD 474

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
in vitro, OECD 471, negativ
Titanium dioxide (<10µm), CAS: 13463-67-7
no adverse effect observed

Reproduction toxicity

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

Product

Rat, negativ, OECD 414

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
Rat, OECD 422, negativ
Titanium dioxide (<10µm), CAS: 13463-67-7
NOAEL, oral, Rat, 1000 mg/kg bw/d (Effect on developmental toxicity), no adverse effect observed

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

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

Substance
N-(3-(Trimethoxysilyl)propyl)ethylenediamine, CAS: 1760-24-3
LC50, (96h), Danio rerio, 597 mg/l (Lit.)
EC50, (48h), Daphnia magna, 81 mg/l (Lit.)
IC50, (72h), Desmodesmus subspicatus, 126 mg/l (Lit.)
Trimethoxyvinylsilane, CAS: 2768-02-7
LC50, (96h), Oncorhynchus mykiss, 191 mg/l
EC50, Pseudokirchneriella subcapitata, 210 mg/l (7 d) (US-EPA)
EC50, (48h), Daphnia magna, 168,7 mg/l (92/69/EWG C.2)
EC10, Pseudomonas putida, 1000 mg/l (5 h)
Titanium dioxide (<10µm), CAS: 13463-67-7
LC50, (48h), Daphnia magna, > 100 mg/l (OECD 202)
LC50, (96h), Oncorhynchus mykiss, > 100 mg/l (OECD 203)
LC50, (96h), Pimephales promelas, > 1000 mg/l
EC50, (72h), Pseudokirchneriella subcapitata, 16 mg/l
NOEC, (28d), Bacteria, >100000 mg/kg (ASTM 1706)

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

PBT/vPvB assessment not available as chemical safety assessment not required or not conducted.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

The product is insoluble in water.
Ecological data of complete product are not available.

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

For recycling, consult manufacturer.

Waste no. (recommended) 080410

Contaminated packaging

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

Waste no. (recommended) 150102
150104

SECTION 14: Transport information

14.1 UN number or ID 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 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2021)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	not applicable
- 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 3)

H332 Harmful if inhaled.
H226 Flammable liquid and vapour.
H351 Suspected of causing cancer.
H412 Harmful to aquatic life with long lasting effects.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

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
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
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
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
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

Modified position SECTION 2 been added: EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

SECTION 15 been added: 2, conf. AwSV, 18.04.2017

SECTION 15 deleted: 1, conf. AwSV, 18.04.2017