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

1.1 Product identifier

MD-GLUE Ethyl
Article number: MGL
UFI: JJQV-S9K1-D00A-YQSN

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 (GB) CLP]

Eye Irrit. 2: H319 Causes serious eye irritation.
Skin Irrit. 2: H315 Causes skin irritation.
STOT SE 3: H335 May cause respiratory irritation.

2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms

Signal word WARNING

Contains: Ethyl-2-cyanoacrylate

Hazard statements

H319 Causes serious eye irritation.
H315 Causes skin irritation.
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.
P261 Avoid breathing vapours.
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.
P337+P313 If eye irritation persists: Get medical advice / attention.
P312 Call a POISON CENTER / doctor /…/ if you feel unwell.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/national regulation.

Special labelling

EUH202 Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

2.3 Other hazards

Human health dangers People who are allergic to cyanacrylates should avoid the use of the product.

Other hazards No particular hazards known.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
70 - 90	Ethyl-2-cyanoacrylate
	CAS: 7085-85-0, EINECS/ELINCS: 230-391-5, EU-INDEX: 607-236-00-9, Reg-No.: 01-2119527766-29-XXXX
	GHS/CLP: STOT SE 3: H335 - Eye Irrit. 2: H319 - Skin Irrit. 2: H315
	SCL [%]: >= 10: STOT SE 3: H335
0,01 - < 0,1	1,4-Dihydroxybenzene
	CAS: 123-31-9, EINECS/ELINCS: 204-617-8, EU-INDEX: 604-005-00-4, Reg-No.: 01-2119524016-51-XXXX
	GHS/CLP: Aquatic Acute 1: H400 - Carc. 2: H351 - Muta. 2: H341 - Acute Tox. 4: H302 - Eye Dam. 1: H318 - Skin Sens. 1: H317 - Aquatic Chronic 1: H410, M-Factor (acute): 10, M-Factor (chronic): 1

Comment on component parts All chemical substances in this material are included on or exempted from listing on the IECSC Inventory.
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.
Do not pull solidified product from skin forcibly.

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.
Do not open bonded eyelids forcibly and without any special care.

Ingestion Get medical advice.
Do not induce vomiting.
Do not give anything to drink.
The product will polymerise immediately in the mouth, making it almost impossible to swallow, but beware of possible choking hazard. Ensure breathing passages are not obstructed. Saliva will separate the solidified product from the mouth over a period of hours.
Do not try to pull the polymerised adhesive from the mouth. Keep checking the mouth to ensure that the person doesn`t swallow it when it detaches.

4.2 Most important symptoms and effects, both acute and delayed

Cyanoacrylates give off heat on solidification. Gross contamination with the adhesive may generate enough heat to cause a burn. Burns should be treated normally after the polymer has been removed gently from the skin. If the person experiences a burning sensation flood the contaminated akin immediately with plenty of cold water to cool the burn. continue to remove the adhesive by gently peeling or rolling it from the skin whilst soaking the contaminated area in cold water. It will take longer to remove the adhesive with cold water but it will still be effective.
Accidental bonding of clothing with cyanoacrylate adhesive on the human skin:
If the cyanoacrylate adhesive has been splashed on the clothing and has soaked through to the skin the clothing should never be forcibly removed from the skin. If the clothing has bonded directly on the skin and the person isn`t experiencing a burning sensation the affected area should be soaked with warm soapy water and the clothing removed gently by peeling or rolling back. Cold water should be used in cases where there is any burning sensation.
Forcible removal of bonded clothing from the skin could lead to mechanical damage occuring to the skin and this could result in a more severe injury.

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

Carbon dioxide.
Water spray jet.
Sand.
Dry powder.

Extinguishing media that must not be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
Use self-contained breathing apparatus.

Collect contaminated firefighting water separately, must not be discharged into the drains.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Keep away from all sources of ignition.
Forms slippery surfaces with water.
Use breathing apparatus if exposed to vapours/dust/aerosol.

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

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, 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 spilling or spraying in enclosed areas.

Highly volatile, flammable components are liberated in processing.
Keep away from all sources of ignition - Refrain from smoking.

Do not eat, drink or smoke when using this product.
After worktime and before work breaks the affected skin areas must be thoroughly cleaned.
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

Only use containers that are approved specifically for the substance/product.
Provide solvent-resistant and impermeable floor.

Do not store together with oxidizing agents.

Protect from heat/overheating.
Keep container 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
Ethyl-2-cyanoacrylate
CAS: 7085-85-0, EINECS/ELINCS: 230-391-5, EU-INDEX: 607-236-00-9, Reg-No.: 01-2119527766-29-XXXX
Short-term exposure (15-minute): 0,3 ppm, 1,5 mg/m³
1,4-Dihydroxybenzene
CAS: 123-31-9, EINECS/ELINCS: 204-617-8, EU-INDEX: 604-005-00-4
Long-term exposure: 0,5 mg/m³

DNEL

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
Industrial, inhalative, Acute - systemic effects, 9,25 mg/m³
Industrial, inhalative, Acute - local effects, 9,25 mg/m³
Industrial, inhalative, Long-term - systemic effects, 9,25 mg/m³
Industrial, inhalative, Long-term - local effects, 9,25 mg/m³
general population, inhalative, Acute - local effects, 9,25 mg/m³
general population, inhalative, Acute - systemic effects, 9,25 mg/m³
general population, inhalative, Long-term - systemic effects, 9,25 mg/m³
general population, inhalative, Long-term - local effects, 9,25 mg/m³
1,4-Dihydroxybenzene, CAS: 123-31-9
Industrial, dermal, Long-term - systemic effects, 3,33 mg/kg bw/day
Industrial, inhalative, Long-term - systemic effects, 2,1 mg/m³
general population, oral, Long-term - systemic effects, 0,6 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 1,66 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 1,05 mg/m³

PNEC

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
There are no PNEC values established for the substance.
1,4-Dihydroxybenzene, CAS: 123-31-9
soil, 0,64 µg/kg soil dw
sediment (seawater), 0,49 µg/kg sediment dw
sediment (freshwater), 4,9 µg/kg sediment dw
sewage treatment plants (STP), 0,71 mg/L
seawater, 0,057 µg/L
freshwater, 0,57 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, >240 min (EN 374-1/-2/-3). In splash contact: > 0,4 mm/ Nitrile rubber, >120 min (EN 374-1/-2/-3).
Skin protection	Light protective clothing.
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. Do not inhale gases/vapours/aerosols. Avoid contact with eyes and skin.
Respiratory protection	Respiratory protection mask in the event of high concentrations. Short term: filter apparatus, filter A. (DIN EN 14387)
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	not determined

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Color	colourless
Odor	pungent
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	150
Flash point [°C]	87
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]	1,05
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble reacts with water
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	No information available.
Kinematic viscosity	not applicable
Relative vapour density	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature	500
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

9.2 Other information

none

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.
Reactions with water.
Reactions with amines.
Reactions with alcohols.
Reactions with alkalies (lyes).

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

See SECTION 7

10.6 Hazardous decomposition products

Irritant gases/vapours.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

Product
ATE-mix, oral, > 5000 mg/kg

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
LD50, oral, Rat, > 5000 mg/kg bw, OECD 401
1,4-Dihydroxybenzene, CAS: 123-31-9
LD50, oral, Rat, 367 mg/kg (OECD 401)
NOAEL, oral, Rat, 250 mg/kg (OECD 407)
LOAEL, oral, Rat, 500 mg/kg (OECD 407)

Acute dermal toxicity

Product
ATE-mix, dermal, > 2000 mg/kg

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
LD50, dermal, Rabbit, > 2000 mg/kg, OECD 402
1,4-Dihydroxybenzene, CAS: 123-31-9
LD50, dermal, > 2000 mg/kg

Acute inhalational toxicity

Substance
1,4-Dihydroxybenzene, CAS: 123-31-9
LC0, inhalativ (mist), Rat, > 2800 mg/m³/8h
LC0, inhalativ (mist), Rat, > 7800 mg/m³/1h

Serious eye damage/irritation

Toxicological data of complete product are not available.
Irritant
Calculation method

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
Rabbit, OECD 405, irritant
1,4-Dihydroxybenzene, CAS: 123-31-9
Harmonised classification:Eye Dam. H318

Skin corrosion/irritation

Toxicological data of complete product are not available.
Irritant
Calculation method

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
Rabbit, OECD 404, irritant
1,4-Dihydroxybenzene, CAS: 123-31-9
Rabbit, non-irritating

Respiratory or skin sensitisation

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

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
Guinea pig, non-sensitizing
1,4-Dihydroxybenzene, CAS: 123-31-9
mouse, OECD 429, sensitising
Guinea pig, OECD 406, sensitising

Specific target organ toxicity — single exposure

Toxicological data of complete product are not available.
May cause respiratory irritation.
Calculation method

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
Harmonised classification: STOT SE 3 H335

Specific target organ toxicity — repeated exposure

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

Substance
1,4-Dihydroxybenzene, CAS: 123-31-9
NOAEL, dermal, Rat, 73,9 mg/kg (13w 5d/w), OECD 411
NOAEL, oral, Rat, 50 mg/kg (13w 5d/w)

Mutagenicity

Based on the available information, the classification criteria are not fulfilled.
Does not contain a relevant substance that meets the classification criteria.

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
OECD 473, negativ
OECD 476, negativ
OECD 471, negativ
1,4-Dihydroxybenzene, CAS: 123-31-9
mouse, OECD 483, positive
Rat, OECD 478, negativ
OECD 474, positive
OECD 476, positive
OECD 473, negativ
OECD 471, negativ

Reproduction toxicity

Based on the available information, the classification criteria are not fulfilled.
Does not contain a relevant substance that meets the classification criteria.

Substance
1,4-Dihydroxybenzene, CAS: 123-31-9
EPA OTS 798.4700 (Reproduction and Fertility Effec
NOAEL, oral, Rat, 150 mg/kg (F2)
NOAEL, oral, Rat, 150 mg/kg (F1)
NOAEL, oral, Rat, 15 mg/kg (P)

Carcinogenicity

Based on the available information, the classification criteria are not fulfilled.
Does not contain a relevant substance that meets the classification criteria.

Substance
1,4-Dihydroxybenzene, CAS: 123-31-9
oral, mouse, 103w 5d/w, OECD 453, positive

oral, Rat, 103 w 5d/w, OECD 453, positive

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

General remarks Cyanoacrylates bond skin and eyelids in seconds. In the case of large spills on the skin, superficial burns may occur - treat accordingly. There may be irritation and redness at the site of contact.

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.

11.2 Information on other hazards

Endocrine disrupting properties No information available.

Other information

SECTION 12: Ecological information

12.1 Toxicity

Substance
Ethyl-2-cyanoacrylate, CAS: 7085-85-0
BCF, 0.776 (EU A.8)
Biological degradability:, 57 % (OECD 301D)
1,4-Dihydroxybenzene, CAS: 123-31-9
LC50, (96h), Oncorhynchus mykiss, 0,638 mg/l (OECD 203)
EC50, (0,5h), Bacteria, 0,038 mg/l
EC50, (72h), Selenastrum capricornutum, 0,335 mg/l (OECD 201)
EC50, (48h), Daphnia magna, 0,134 mg/l (OECD 202)
NOEC, (21d), Daphnia magna, 0,0057 mg/l (OECD 211)

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 evidence for bioaccumulation potential.

12.4 Mobility in soil

Cured product is immobile.

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment.
Do not allow product to reach 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* packaging containing residues of or contaminated by hazardous substances

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 3334

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 Aviation regulated liquid, n.o.s. (Cyanoacrylates)[only for more than 0,5l]

- Label

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 9

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	III

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); UK REACH; GB CLP.
- 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

For the following substances of this preparation a chemical safety assessment has been carried out:

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H410 Very toxic to aquatic life with long lasting effects.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H302 Harmful if swallowed.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory 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
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
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)
Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
STOT SE 3: H335 May cause respiratory irritation. (Calculation method)

Modified position SECTION 3 been added: 1,4-Dihydroxybenzene

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