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

1.1 Product identifier

Aqua-Fix Poly Glue

Item number: AF300
UFI: D1SA-JJ61-UC0X-PX04

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 name

ARKA Biotechnologie GmbH
Mühllach 53-55
90552 Röthenbach a. d. Peg. / Germany
Phone +49 (0)911 / 56 98 610 - 00
Fax +49 (0)911 / 56 98 610 - 29
Homepage www.arka-biotech.de
E-Mail info@arka-biotech.de

Providing information

Technical information info@arka-biotech.de

Safety data sheet sdb@chemiebuero.de

1.4 Emergency number

Advice center +49 (0)911 / 56 98 610 - 00

Company

SECTION 2: Hazards identification

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

Aerosol 1: H222 Extremely flammable aerosol. H229 Pressurized container: May burst if heated.

2.2 Labeling elements

The product is subject to labeling according to Regulation (EC) 1272/2008 (CLP).

Hazard pictograms

Signal word DANGER

Hazard statements
H222 Extremely flammable aerosol.
H229 Pressurized container: May burst if heated.

Safety instructions
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. keep away. Do not smoke.
P251 Do not pierce or burn, even after use.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F.
P101 If medical advice is needed, have product container or label at hand. P102 Keep out of the reach of children.

Special labeling
EUH211 Caution! Hazardous respirable droplets may be produced when spraying. Do not inhale aerosol or mist.

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

2.3 Other dangers

Physical-chemical hazards Heating leads to pressure increases and risk of bursting.

Other hazards No other hazards have been identified based on current knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Fabrics

not applicable

3.2 Mixtures

The product is a mixture.

Content [%]	Component
> 10	Propane/butane
	CAS: 74-98-6/ 106-97-8, EINECS/ELINCS: 200-827-9/ 203-448-7, EU-INDEX: 601-003-00-5/ 601-004-00-0
	GHS/CLP: Flam. Gas 1A: H220 - Press. Gas: H280
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

Ingredient comment SVHC list (Candidate List of Substances of Very High Concern for authorization): Contains none or less than 0.1% of the listed substances.
The wording of the listed H-phrases can be found in SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice
Change wet clothing.

After inhalation
Provide fresh air.
Seek medical treatment in case of complaints.

After skin contact
In case of contact with skin, rinse with warm water.
If skin irritation persists, consult a doctor.

After eye contact
Rinse cautiously with water for several minutes. Any contact lenses
Remove if possible. Continue rinsing.
If eye irritation persists: Seek medical advice/attention.

After ingestion
Not required under normal conditions.
Rinse out mouth and drink plenty of water. If
symptoms occur, seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Information on immediate medical assistance or special treatment

Treat symptomatically.
Make the safety data sheet available to the doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing agent

Suitable extinguishing agents
Foam, extinguishing powder, water spray jet, carbon dioxide

Unsuitable extinguishing agents
Full water jet

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Bursting aerosol cans can be thrown out of a fire with great force.

5.3 Instructions for firefighting

Use self-contained breathing apparatus.

Fire residues and contaminated extinguishing water must be disposed of in accordance with local regulations.
Cool endangered containers with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal
protective equipment.

6.2 Environmental protection measures

not applicable

6.3 Methods and material for retention and cleaning

Pick up mechanically.
Absorb residues with liquid-binding material (e.g. acid binder). Dispose of the absorbed material in accordance with regulations.

6.4 Reference to other sections

See SECTIONS 8+13

SECTION 7: Handling and storage

7.1 Protective measures for safe handling

Only use in well ventilated areas.

Pressurized container. Protect from sunlight and temperatures above 50 °C. Do not spray against a flame or onto a glowing object. Keep away from sources of ignition - No smoking.

Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of work.
Preventive skin protection with skin protection ointment.

7.2 Conditions for safe storage, taking into account incompatibilities

Store only in the original container.

Do not store together with oxidizing agents.

Protect from heating/overheating.
Store in a cool place - heating leads to increased pressure and risk of bursting. Store container in a well-ventilated place.

Storage class (TRGS 510) LGK 2 B: Aerosol dispensers and lighters

7.3 Specific end uses

See use of the product, SECTION 1.2

SECTION 8: Exposure controls/personal protective equipment

8.1 Parameters to be monitored

Occupational exposure limits (DE)

Component
Propane/butane
CAS: 74-98-6/ 106-97-8, EINECS/ELINCS: 200-827-9/ 203-448-7, EU-INDEX: 601-003-00-5/ 601-004-00-0
Occupational exposure limit: 1000/1000 ppm, 1800/2400 mg/m³, DFG (propane/butane)
Peak limitation - Exceedance factor: 4(II)

DNEL

Component
Trimethoxyvinylsilane, CAS: 2768-02-7
Industry, dermal, long-term systemic effects, 0.91 mg/kg bw/day
Industry, inhalative, long-term - systemic effects, 27.6 mg/m³
Consumer, oral, long-term - systemic effects, 0.63 mg/kg bw/day
Consumer, dermal, long-term systemic effects, 0.63 mg/kg bw/day
Consumer, inhalative, long-term - systemic effects, 6.8 mg/m³

PNEC

Component
Trimethoxyvinylsilane, CAS: 2768-02-7
Sediment (seawater), 0.15 mg/kg dw
Sediment (fresh water), 1.5 mg/kg dw
Seawater, 40 µg/L
Soil (agricultural), 0.06 mg/kg dw
Fresh water, 400 µg/L

8.2 Exposure controls and monitoring

Additional information on the design of technical systems	Ensure adequate ventilation at the workplace. Measurement procedures for carrying out workplace measurements must fulfill the performance requirements of DIN EN 482. Recommendations are given, for example, in the IFA list of hazardous substances.
Eye protection	Safety goggles. (EN 166:2001)
Hand protection	The information is only a recommendation. For further information, please contact the glove supplier. With permanent contact: > 0.4mm: Butyl rubber, >120 min (EN 374-1/-2/-3).
Body protection	not applicable
Other protective measures	The design of the personal protective equipment depends on the concentration and quantity should be selected specifically for the workplace. The chemical resistance of the protective agents should be clarified with their suppliers. Do not inhale aerosols. Avoid contact with eyes and skin.
Respiratory protection	Respiratory protection at high concentrations. Short-term filter device, filter A. (DIN EN 14387)
Thermal hazards	not applicable
Limiting and monitoring environmental exposure	See SECTION 6+7.

SECTION 9: Physical and chemical properties

9.1 Information on the basic physical and chemical properties

Physical state	pasty Press-Pack
Color	different
Odor	Characteristic
Odor threshold	No information available.
pH value	not applicable
pH [1%]	not applicable **Initial boiling**
point/boiling range [°C]	No information available. **Flash**
point [°C]	No information available.
Flammability (solid, gas) [°C]	No information available.
Lower flammability or explosion limit	No information available. No
Upper flammability or explosion limit	information available.
Oxidizing properties	no
Vapor pressure [kPa]	No information available.
Density [g/cm³]	No information available.
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	No information available.
Kinematic viscosity	not applicable
Relative	vapor **densityNo** information available.
Evaporation rate	No information available.
Melting point/freezing point [°C]	No information available.
Ignition temperature	No information available.
Decomposition temperature [°C]	not applicable
Particle properties	No information available.

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

None known when used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents. Risk of bursting.

10.4 Conditions to avoid

Strong heating. Sensitive to moisture.
The product may hydrolyze.

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

Contact with moisture releases methanol.

SECTION 11: Toxicological information

11.1 Information on hazard classes according to Regulation (EC) No. 1272/2008

Acute oral toxicity

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

Component
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

Component
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 inhalation toxicity

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

Component
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)
Propane/butane, CAS: 74-98-6/ 106-97-8
LC50, inhalative, rat, >800000 ppm IUCLID
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 Based on available information, the classification criteria are not met.

Component
N-(3-(trimethoxysilyl)propyl)ethylenediamine, CAS: 1760-24-3
Causes serious eye damage.

Trimethoxyvinylsilane, CAS: 2768-02-7
Eye, rabbit, OECD 405, 24h, non-irritant
Titanium dioxide (<10µm), CAS: 13463-67-7
No harmful effect observed

Skin corrosion/irritation Based on available information, the classification criteria are not met.

Product
cutaneous, rabbit, negative, OECD 404
Eye, rabbit, negative, OECD 405

Component
N-(3-(trimethoxysilyl)propyl)ethylenediamine, CAS: 1760-24-3
non-irritant
Trimethoxyvinylsilane, CAS: 2768-02-7
dermal, rabbit, 24h, non-irritant
Titanium dioxide (<10µm), CAS: 13463-67-7
No harmful effect observed

Respiratory or skin sensitization Not sensitizing.
May cause allergic reactions. based on test data

Product
dermal, mouse, negative, OECD 429

Component
N-(3-(trimethoxysilyl)propyl)ethylenediamine, CAS: 1760-24-3
dermal, sensitizing
Trimethoxyvinylsilane, CAS: 2768-02-7
dermal, sensitizing
Titanium dioxide (<10µm), CAS: 13463-67-7
No harmful effect observed

Specific target organ toxicity at single exposure Based on available information, the classification criteria are not met.

Component
Trimethoxyvinylsilane, CAS: 2768-02-7
inhalative, non-irritant

Specific target organ toxicity with repeated exposure Based on available information, the classification criteria are not met.

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

Component
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, oral, rat, 40 mg/kg bw/day (subchronic), The observed effects are not sufficient for classification.

NOAEC, inhalative, rat, 605 mg/m³ (subchronic), The observed effects are not sufficient for a classification.

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

Product
Mouse, negative, OECD 474

Component
N-(3-(trimethoxysilyl)propyl)ethylenediamine, CAS: 1760-24-3
in vivo, negative
in vitro, negative
Trimethoxyvinylsilane, CAS: 2768-02-7
in vivo, negative
in vitro, OECD 471, negative
Titanium dioxide (<10µm), CAS: 13463-67-7
No harmful effect observed

Reproductive toxicity Based on available information, the classification criteria are not met.

Product
Rat, negative, OECD 414

Component
N-(3-(trimethoxysilyl)propyl)ethylenediamine, CAS: 1760-24-3
NOAEL, oral, rat, 500 mg/kg bw/d (Effect on fertility), no adverse effect observed
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, oral, rabbit, 75 mg/kg bw/day (subacute), no adverse effect observed, Effect on developmental toxicity,
NOAEL, oral, rat, 300 mg/kg bw/day (subchronic), no adverse effect observed, Effect on fertility,
NOAEC, inhalative, rat, 1730 mg/m³ (subacute), no adverse effect observed, Effect on developmental toxicity,
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 available information, the classification criteria are not met.

Component
Titanium dioxide (<10µm), CAS: 13463-67-7
Harmonized classification: Carc. 2 H351

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

General remarks

Information on toxicology refers to the pure product.

11.2 Information on other hazards

Endocrine disrupting properties No information available.

Other information none

SECTION 12: Environmental information

12.1 Toxicity

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

Component
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/EEC 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

Behavior in environmental compartments
Behavior in sewage treatment plants not determined
Biodegradability Not biodegradable.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of the PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other harmful effects

The product is insoluble in water.
Do not allow product to enter the environment or drains in an uncontrolled manner.

SECTION 13: Disposal instructions

13.1 Waste treatment process

Product residues must be disposed of in accordance with the Waste Directive 2008/98/EC and national and regional regulations. No waste code number can be defined for this product in accordance with the European Waste Catalogue (EWC), as only the intended use by the consumer allows an allocation. The waste code number must be determined within the EU in consultation with the disposal company.

Product

Dispose of as hazardous waste.

AVV-No. (recommended) 160504* Gases containing dangerous substances in pressurized containers (including halons).

Uncleaned packaging

Non-contaminated packaging can be recycled. Packaging that cannot be cleaned must be disposed of in the same way as the substance.

AVV-No. (recommended) 150110* Packaging containing residues of hazardous substances or contaminated by hazardous substances

substances are contaminated.

SECTION 14: Transport information

14.1 UN number or ID number

Land transport according to ADR/RID 1950

Inland navigation (ADN) 1950

Sea transportation according to IMDG 1950

Air transport according to IATA 1950

14.2 UN proper shipping name

Land transportation according to ADR/RID	Compressed gas packages
- Classification code	5F
- Hazard label	
- ADR LQ	1 l
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (D)
Inland navigation (ADN)	Compressed gas packagings
- Classification code	5F
- Hazard label	
Sea transportation according to IMDG	Aerosols
- EMS	F-D, S-U
- Hazard label	
- IMDG LQ	1 l
Air transport according to IATA	Aerosols, flammable
- Hazard label	

14.3 Transport hazard classes

Land transportation according to ADR/RID	2
Inland navigation (ADN)	2
Sea transportation according to IMDG	2.1
Air transportation according to IATA	2.1

14.4 Packaging group

Land transport according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Sea transportation according to IMDG	not applicable
Air transport according to IATA	not applicable

14.5 Environmental hazards

Land transport according to ADR/RID	no
Inland navigation (ADN)	no
Transport by sea according to IMDG	no
Air transportation according to IATA	no

14.6 Special precautions for the user

Corresponding information under SECTIONS 6 to 8.

14.7 Transport of bulk goods by sea in accordance with IMO instruments

No information available.

SECTION 15: Legislation

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

EU 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, 40th Amdt.); IATA-DGR (2022)
NATIONAL REGULATIONS (EN): TRGS:	Hazardous Substances Ordinance - GefStoffV 2016; Water Resources Act - WHG; TRG 300; 200, 615, 900, 905.
- Water hazard class	2, according to AwSV from 18.04.2017
- Major Accidents Ordinance	no
- Classification according to TA-Luft	5.2.5 Organic substances.
- GISBAU, product code	not determined
- Storage class (TRGS 510)	LGK 2 B: Aerosol dispensers and lighters
- Employment restrictions	Observe employment restrictions for expectant and breastfeeding mothers. Observe employment restrictions for young people.
- VOC (2010/75/EC)	not determined
- Other regulations	TRGS 510: Storage of hazardous substances in portable containers

15.2 Chemical safety assessment

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

SECTION 16: Other information

16.1 Hazard warnings (SECTION 3)

H280 Contains gas under pressure; may explode if heated. H220
Extremely flammable gas.
H412 Harmful to aquatic life with long lasting effects. H318 Causes
serious eye damage.
H317 May cause an allergic skin reaction. H332 Harmful
if inhaled.
H226 Flammable liquid and vapor. H351

Suspected of causing cancer.

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
AVV = Waste Catalogue Ordinance
ATE = acute toxicity estimate
BGI = Berufsgenossenschaftliche Information CAS = Chemical Abstracts Service
CLP = Classification, Labeling 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%
IFA = Institute for Occupational Safety and Health of the German Social Accident Insurance 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
LGK = storage class
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, Authorization and Restriction of Chemicals
STP = Sewage Treatment Plant
TA-Luft = Technical Instructions on Air Quality Control
TLV®/TWA = Threshold limit value - time-weighted average
TLV®STEL = Threshold limit value - short-time exposure limit
TRGS = Technical Rules for Hazardous Substances
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative
AwSV: Ordinance on facilities for handling substances hazardous to water

16.3 Other information

Customs tariff not determined

Classification procedure Aerosol 1: H222 Extremely flammable aerosol. (Transmission principle "Aerosols") H229 Pressurized container: May burst when heated. ()

Changed positions none

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