ferax e. K.
86653 Monheim

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

1.1 Product identifier

ferax® Supertack

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

1.2.1 Relevant uses

Adhesive / Sealant

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

ferax e. K.
Am Sendle 7
86653 Monheim / GERMANY
Phone +49(0) 90 91 - 907 997 - 0
Fax +49(0) 90 91 - 907 997 - 99
Homepage www.ferax.de
E-mail info@ferax.de

Address enquiries to

Technical information info@ferax.de

Safety Data Sheet sdb@chemiebuero.de (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

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 CLP.

Hazard pictograms none

Signal word none

Hazard statements none

Precautionary statements none

Special labelling EUH210 Safety data sheet available on request.

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

2.3 Other hazards

Human health dangers The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Environmental hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
0.1 - < 1	N-[3-(Trimethoxysilyl)propyl]ethylenediamine
	CAS: 1760-24-3, EINECS/ELINCS: 217-164-6
	GHS/CLP: Skin Sens. 1B: H317 - Eye Dam. 1: H318 - Acute Tox. 4: H332 - STOT RE 2: H373
0.1 - < 1	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

Comment on component parts

Adhesive and sealant based on MS hybrid polymer
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

When in contact with the skin, clean with soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

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

Rinse out mouth and give plenty of water to drink.
Get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions

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

Alcohol-resistant foam.
Carbon dioxide.
Dry powder.
Water spray jet.

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

Ensure adequate ventilation.
Wear suitable protective equipment. For personal protection see SECTION 8.
Keep unnecessary and unprotected personnel from entering.

6.2 Environmental precautions

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 (Section 13).
Clean contaminated areas afterwards thoroughly.

6.4 Reference to other sections

See SECTION 7+8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Observe the general safety regulations when handling chemicals.
Use only in well-ventilated areas.
Avoid contact with eyes and skin. Use personal protective equipment.

Take off contaminated clothing and wash before reuse.
Do not eat, drink or smoke when using this product.
Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Do not store together with food and animal food/diet.

Keep container tightly closed.
Keep container in a well-ventilated place.
Keep in a cool place.
Protect from atmospheric moisture and water.

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 (EU)

not relevant

DNEL

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
Industrial, dermal, Long-term - systemic effects, 0.91 mg/kg bw/day
Industrial, inhalative, Long-term - systemic effects, 27.6 mg/m³
general population, oral, Long-term - systemic effects, 0.63 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 0.63 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 6.8 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.
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
During transfer:
safety glasses

Hand protection
>= 0.4 mm. natural latex, >120 min (EN 374-1/-2/-3).
>= 0.4 mm. PVA, >120 min (EN 374-1/-2/-3).
>= 0.4 mm. Nitrile rubber, >120 min (EN 374-1/-2/-3).
The details concerned are recommendations. Please contact the glove supplier for further information.

Skin protection
Protective clothing (EN 340)

Other
Do not breathe vapour/spray.
Avoid contact with eyes and skin.

Respiratory protection
Not required under normal conditions.
In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.
Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)

Thermal hazards
not applicable

Delimitation and monitoring of the environmental exposition
Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Form	pasty
Color	According to product specification
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	No information available.
Flammability	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	none
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/cm³]	1.5 (20°C)
Relative density	No information available.
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not applicable
Kinematic viscosity	not relevant
Relative vapour density	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature [°C]	not self-igniting
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

9.2 Other information

Product does not present an explosion hazard.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under recommended storage conditions.
Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

No decomposition if used and stored according to specifications.

SECTION 11: Toxicological information

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

Acute oral toxicity

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

Substance
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)
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LD50, oral, Rat, 2295 mg/kg

Acute dermal toxicity

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

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, dermal, Rabbit, 3259 mg/kg bw
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LD50, dermal, Rabbit, > 2000 mg/kg

Acute inhalational toxicity

Product
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)
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LC50, inhalative, Rat, 1.49 - 2.44 mg/L/4h

Serious eye damage/irritation Based on the available information, the classification criteria are not fulfilled.

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
Eye, Rabbit, OECD 405, 24h, non-irritating
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
corrosive

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

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
dermal, Rabbit, 24h, non-irritating
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
no adverse effect observed

Respiratory or skin sensitisation Based on the available information, the classification criteria are not fulfilled.

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
dermal, sensitising
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
sensitising

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

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
inhalative, non-irritating

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

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, oral, Rat, 40 mg/kg bw/day (subchronic), The effects observed are not sufficient for classification.
NOAEC, inhalative, Rat, 605 mg/m³ (subchronic), The effects observed are not sufficient for classification.

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

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
in vivo, negativ
in vitro, OECD 471, negativ
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
no adverse effect observed

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

- Fertility

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, oral, Rat, 300 mg/kg bw/day (subchronic), no adverse effect observed
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
NOAEL, oral, Rat, 500 mg/kg bw/d (Effect on fertility), no adverse effect observed

- Development

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, oral, Rabbit, 75 mg/kg bw/day (subacute), no adverse effect observed
NOAEC, inhalative, Rat, 1730 mg/m³ (subacute), no adverse effect observed
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
NOAEL, oral, Rat, 500 mg/kg bw/d (Effect on fertility), 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.

11.2 Information on other hazards

Endocrine disrupting properties The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other information none

SECTION 12: Ecological information

12.1 Toxicity

Substance
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)
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LC50, (96h), fish, > 100 mg/L
EC50, (48h), Daphnia magna, 81 mg/L

12.2 Persistence and degradability

Behaviour in environment compartments No information available.

Behaviour in sewage plant No information available.

Biological degradability The product is not readily biodegradable.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

The product is insoluble in water.

12.5 Results of PBT and vPvB assessment

not applicable

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 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 contents/container in accordance with local/national regulation.

Waste no. (recommended) 080410

Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150101
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 (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)
NATIONAL REGULATIONS (EU):	
- Observe employment restrictions for people	none
- VOC (2010/75/CE)	0%

15.2 Chemical safety assessment

For this product a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H373 May cause damage to organs through prolonged or repeated exposure.
H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H226 Flammable liquid and vapour.

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

Classification procedure

Modified position

SECTION 3 deleted: Titanium dioxide (<10µm)

SECTION 2 been added: Trimethoxyvinylsilane

SECTION 3 been added: Trimethoxyvinylsilane

SECTION 2 been added: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 2 been added: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3 deleted: -