Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

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

- **1.1 Product identifier**

- **Trade name: Seal Flex HT black**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Silicate sealing

- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
TECHNIQUA HANDELS GmbH
Reichenhaller Straße 15
D-83451 Piding
Tel: +49 (8651) - 767 62 51
E-Mail: sales@techniqua.de

- **1.4 Emergency telephone number:** Poison information center
Tel: +49 (0) 6131 - 19240, Langenbeckstraße 1, D- 55131 Mainz

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

Aerosol 3	H229	Pressurised container: May burst if heated.
Eye Dam. 1	H318	Causes serious eye damage.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Carc. 2	H351	Suspected of causing cancer.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labelling:**
Butan-2-one O,O',O"-(vinylsilylidyne)trioxime
2-butanone oxime
3-aminopropyltriethoxysilane
- **Hazard statements**
H229 Pressurised container: May burst if heated.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
- **Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

Trade name: Seal Flex HT black

(Contd. of page 1)

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**
8 % by mass of the contents are flammable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Silicate sealing

- **Dangerous components:**		
CAS: 2224-33-1 EINECS: 218-747-8	Butan-2-one O,O',O''-(vinylsilylidyne)trioxime STOT RE 2, H373; Eye Dam. 1, H318; Skin Sens. 1, H317	3-<5%
CAS: 96-29-7 EINECS: 202-496-6 Index number: 616-014-00-0	2-butanone oxime Carc. 2, H351; Eye Dam. 1, H318; Acute Tox. 4, H312; Skin Sens. 1, H317	1-<3%
CAS: 919-30-2 EINECS: 213-048-4 Index number: 612-108-00-0 Reg.nr.: 01-2119480479-24-xxxx	3-aminopropyltriethoxysilane Skin Corr. 1B, H314; Acute Tox. 4, H302; Skin Sens. 1, H317	0.3-<1%
	In the propellant-mixture:	
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0	butane Flam. Gas 1, H220; Press. Gas C, H280	
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5	propane Flam. Gas 1, H220; Press. Gas C, H280	

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
After contact with skin, wash immediately with plenty of soap and water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

Trade name: Seal Flex HT black

(Contd. of page 2)

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
Can form explosive gas-air mixtures.
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb liquid components with liquid-binding material.
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
Fumes can combine with air to form an explosive mixture.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 10 for information on "stability and reactivity".
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire - and explosion protection:**
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Protect from heat and direct sunlight.
Store under lock and key and with access restricted to technical experts or their assistants only.
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
- **Maximum storage temperature:** 30 °C
- **Minimum storage temperature:** 5 °C

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

Trade name: Seal Flex HT black

(Contd. of page 3)

- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**	
96-29-7 2-butanone oxime	
AGW (Germany)	Long-term value: 1 mg/m³, 0.3 ppm 8(I);AGS, Y, H, Sh
74-98-6 propane	
AGW (Germany)	Long-term value: 1800 mg/m³, 1000 ppm 4(II);DFG
106-97-8 butane	
AGW (Germany)	Long-term value: 2400 mg/m³, 1000 ppm 4(II);DFG

- **DNELs**		
919-30-2 3-aminopropyltriethoxysilane		
Oral	Akut, Systemische Effekte	5 mg/kg (all)
	Langzeit, Systemische Effekte	5 mg/kg bw/day (all)
Dermal	Akut, Systemische Effekte	5 mg/kg bw (all)
		8.3 mg/kg bw (ber)
	Langzeit, Systemische Effekte	5 mg/kg bw/day (all)
		8.3 mg/kg bw/day (ber)
Inhalative	Akut, Systemische Effekte	17.4 mg/m³ (all)
		59 mg/m³ (ber)
	Langzeit, Systemische Effekte	17 mg/m³ (all)
		59 mg/m³ (ber)

- **PNECs**	
919-30-2 3-aminopropyltriethoxysilane	
PNEC Boden	0.04 mg/kg Boden
PNEC Meerwasser	0.033 mg/l
PNEC Süßwasser	0.33 mg/l

- **CAS No. Designation of material % Type Value Unit**

- **Additional Occupational Exposure Limit Values for possible hazards during processing:**	
96-29-7 2-butanone oxime	
AGW (Germany)	Long-term value: 1 mg/m³, 0.3 ppm 8(I);AGS, Y, H, Sh
67-56-1 methanol	
AGW (Germany)	Long-term value: 270 mg/m³, 200 ppm 4(II);DFG, EU, H, Y
IOELV (European Union)	Long-term value: 260 mg/m³, 200 ppm Skin

- **Additional information:**
If used according to specifications the propellant (contains propane/butane) is not liberated.
The lists valid during the making were used as basis.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

Trade name: Seal Flex HT black

(Contd. of page 4)

- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
Use suitable respiratory protective device in case of insufficient ventilation.
Filter A/P2
- **Protection of hands:**
Protective gloves (EN 374)
Check protective gloves prior to each use for their proper condition.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
Find below a list of appropriate protective gloves for chemical surrounding:
.
Permeation time / penetration time: = 480 minutes (DIN EN 374):
Naturlatex I , Nr. 0395 oder 0403
Naturlatex II , Nr. 0706 oder 0708
Chloropren Nitril II, Nr. 0717
Chloropren Nitril I, Nr. 0727
Chloropren, Nr. 0720, 0722, 0723, 0725 oder 0726
Nitril I, Nr. 0730, 0732, 0733, 0736, 0737, 0738, 0739 oder 0836
Nitril II, Nr. 0740, 0741, 0742 oder 0759
Nitril III, Nr. 0743
Nitril VI, Nr. 0754
Nitril V, Nr. 0764
Viton, Nr. 0890
Butyl II, Nr. 0897
Butyl, Nr. 0898
.

.
The recommendation is based exclusively on the chemical compatibility and the test according to EN374 under laboratory conditions.
Requirements can vary according to the use. Therefore, please always take into account the glove supplier’s recommendations.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
Permeation time / penetration time: see above (material of gloves)
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

Trade name: Seal Flex HT black

(Contd. of page 5)

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**	
- **General Information**	
- **Appearance:**	
Form:	Pasty
Colour:	Black
- **Odour:**	Characteristic
- **Odour threshold:**	Not determined.
- **pH-value:**	Not determined.
- **Change in condition**	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
- **Flash point:**	Not applicable.
- **Flammability (solid, gas):**	Not applicable.
- **Ignition temperature:**	
Decomposition temperature:	Not determined.
- **Auto-ignition temperature:**	Product is not self-igniting.
- **Explosive properties:**	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.
- **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
- **Vapour pressure:**	Not determined.
- **Density at 20 °C:**	1.28 g/cm³
- **Relative density**	Not determined.
- **Vapour density**	Not determined.
- **Evaporation rate**	Not applicable.
- **Solubility in / Miscibility with water:**	Hydrolised.
- **Partition coefficient: n-octanol/water:**	Not determined.
- **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
- **9.2 Other information**	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Protect from heat and direct sunlight.
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Danger of bursting.
Toxic fumes may be released if heated above the decomposition point.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

Trade name: Seal Flex HT black

(Contd. of page 6)

- **10.6 Hazardous decomposition products:**
No dangerous products of decomposition if used and stored according to specifications.

*
SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**		
96-29-7 2-butanone oxime		
Oral	LD50	930 mg/kg (rat)
Dermal	LD50	>1000 mg/kg (rab)
Inhalative	LC50/4 h	> 4.83 mg/l (rat)
106-97-8 butane		
Inhalative	LC50/4 h	658 mg/l (rat)
919-30-2 3-aminopropyltriethoxysilane		
Oral	LD50	1490 - 2690 mg/kg (rat)
Dermal	LD50	4076 mg/kg (rab) (EPA)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Repeated exposure may cause skin dryness or cracking.
- **Serious eye damage/irritation**
Causes serious eye damage.
Causes serious eye damage.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **Additional toxicological information:**
No experimentally found toxicological data are available for this preparation.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Limited evidence of a carcinogenic effect.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

*
SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**	
919-30-2 3-aminopropyltriethoxysilane	
EC50/48 h	331 mg/l (DA) (OECD TG 202)
EC50/72 h	>1000 mg/l (Algae) (OECD TG 201)
LC0/96 h	>934 mg/l (Danio rerio) (OECD TG 203)
NOEC	1.3 mg/l (Algae) (OECD TG 201)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

Trade name: Seal Flex HT black

(Contd. of page 7)

Danger to drinking water if even small quantities leak into the ground.
Do not allow product to reach ground water, water course or undiluted sewage system.
Water hazard class (German Regulation) is valid for the active agent.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**	
- **ADR, IMDG, IATA**	UN1950
- **14.2 UN proper shipping name**	
- **ADR**	1950 AEROSOLS
- **IMDG**	AEROSOLS
- **IATA**	AEROSOLS, flammable
- **14.3 Transport hazard class(es)**	
- **ADR**	
	
- **Class**	2 5F Gases.
- **Label**	2.1
- **IMDG, IATA**	
	
- **Class**	2.1
- **Label**	2.1
- **14.4 Packing group**	
- **ADR, IMDG, IATA**	Void
- **14.5 Environmental hazards:**	Not applicable.
- **14.6 Special precautions for user**	Warning: Gases.
- **Danger code (Kemler):**	-
- **EMS Number:**	F-D,S-U
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

Trade name: Seal Flex HT black

(Contd. of page 8)

- **Transport/Additional information:**	
- **ADR**	
- **Limited quantities (LQ)**	1L
- **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
- **Transport category**	2
- **Tunnel restriction code**	D
- **IMDG**	
- **Limited quantities (LQ)**	1L
- **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
- **UN "Model Regulation":**	UN1950, AEROSOLS, 2.1

*
SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 48

- **National regulations:**

- **Waterhazard class:**
Water hazard class 2 (Self-assessment): hazardous for water.
Water hazard class (German Regulation) is valid for the active agent.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

*
SECTION 16: Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Gas 1: Flammable gases – Category 1
Aerosol 3: Aerosols – Category 3
Press. Gas C: Gases under pressure – Compressed gas
Acute Tox. 4: Acute toxicity – Category 4

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.03.2017 Version number 3 Revision: 24.03.2017

Trade name: Seal Flex HT black

(Contd. of page 9)

Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

- *** Data compared to the previous version altered.**