Safety Data Sheet (1907/2006/EC)
Vers: 21.1.0 (EN)
Material: Neusil K81

Date of revision 15.06.2015

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

1.1 Product identifier electrically conductive 2-c paste (base silicone), filler: silver/glass (Ag/Glass)
Trade name : Neusil K81

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses
Industrial.
Use of substance / preparation:
electrically conductive adhesive.

1.3 Details of the supplier of the safety data sheet

Supplier :	NEUHAUS ELEKTRONIK GmbH
Street :	Drontheimer Str. 21
Postal code/city :	D 13359 Berlin
Telephone :	+49 (0)30 497-695-0
Telefax :	+49 (0)30 497-695-30

Information contact :
Telephone : +49 (0)30 497-695-0
Telefax : +49 (0)30 497-695-30
E-Mail: neuhaus-elektronik@t-online.de

1.4 Emergency telephone number

Emergency information (german)	**Mr. Alexander Neuhaus**	**+49 (0)30-497-695-0**
Emergency information (international)	**Mr. Alexander Neuhaus**	**+49 (0)179 4511183**

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]
Aquatic Chronic 2 ; H411 - Hazardous to the aquatic environment : Category 2 ; Toxic to aquatic life with long lasting effects.
Asp. Tox. 1 ; H304 - Aspiration hazard : Category 1 ; May be fatal if swallowed and enters airways.
Skin Irrit. 2 ; H315 - Skin corrosion/irritation : Category 2 ; Causes skin irritation.
Flam. Liq. 2 ; H225 - Flammable liquids : Category 2 ; Highly flammable liquid and vapour.
STOT SE 3 ; H336 - STOT-single exposure : Category 3 ; May cause drowsiness or dizziness.

2.2 Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard pictograms

Flame (GHS02) · Health hazard (GHS08) · Environment (GHS09) · Exclamation mark (GHS07)
Signal word
Danger

Hazard statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P405	Store locked up.
P501	Dispose of contents/container according to local regulations

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

ORGANIC SOLVENTS

3.1 Substances

Substance name : HYDROCARBONS, C6-C7, N-ALKANES, ISO-ALKANES, CYCLICS < 5% N-HEXANE
Substance name : HYDROCARBONS, C6-C7, N-ALKANES, ISO-ALKANES, CYCLICS < 5% N-HEXANE
INDEX No. : 649-328-00-1
EC No. : 921-024-6
REACH No. : 01-2119475514-35
Purity : ≥ 90 - < 100 % [mass]

HAZARDOUS

NON-HAZARDOUS

Siloxanes and Silicones, di-Me hydroxy terminated	70131-67-8	60% ±5%
Treated Silica	68937-51-9	10% ±5%
Polydimethylsiloxane	63148-62-9	10% ±5%
petrol		20% ±5%

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove affected person from the danger area and lay down. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician.

In case of skin contact

Change contaminated, saturated clothing. After contact with skin, wash immediately with plenty of water and soap. Rub greasy ointment into the skin.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion
Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let water be drunken in little sips (dilution effect).

4.2 Most important symptoms and effects, both acute and delayed
Dizziness Headache Impairment of vision Nausea Vomiting

4.3 Indication of any immediate medical attention and special treatment needed
None

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
alcohol resistant foam Carbon dioxide (CO2) Extinguishing powder Water spray
Unsuitable extinguishing media
High power water jet

5.2 Special hazards arising from the substance or mixture
In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2)

5.3 Advice for firefighters
In case of fire: Wear self-contained breathing apparatus. Protective clothing.

5.4 Additional information
Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protection equipment. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation. See protective measures under point 7 and 8.

6.2 Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal. Clear contaminated areas thoroughly.

6.4 Reference to other sections
None

SECTION 7: Handling and storage

7.1 Precautions for safe handling
If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Only use the material in places where open light, fire and other flammable sources can be kept away.

Protective measures
All work processes must always be designed so that the following is excluded: Inhalation of vapours or spray/mists
Take precautionary measures against static discharges.

Measures to prevent fire
Keep away from sources of ignition. - No smoking. Usual measures for fire prevention. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Provide earthing of containers, equipment, pumps and ventilation facilities. Use only antistatically equipped (spark-free) tools. Wear anti-static footwear and clothing Take precautionary measures against static discharges.

Measures to prevent aerosol and dust generation
Vapours/aerosols should be exhausted directly at the point of origin. Use only in well-ventilated areas.
Environmental precautions
Shafts and sewers must be protected from entry of the product.

7.2 Conditions for safe storage, including any incompatibilities
Hints on joint storage
Storage class (VCI): 3
Storage class (TRGS 510) : 3

7.3 Specific end use(s)
None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limit values
HYDROCARBONS, C6-C7, N-ALKANES, ISO-ALKANES, CYCLICS < 5% N-HEXANE

Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	200 ppm / 1000 mg/m3
Peak limitation :	4
Remark :	31
Version :	05.02.2004

DNEL/DMEL und PNEC-Werte
DNEL/DMEL

Limit value type :	DNEL Consumer (systemic)
Exposure route :	Dermal
Exposure frequency	longtime - systemic
Limit value :	149 mg/kg
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Inhalation
Exposure frequency :	longtime - systemic
Limit value :	447 mg/m3
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Oral
Exposure frequency :	longtime - systemic
Limit value :	149 mg/kg
Limit value type :	DNEL worker (systemic)
Exposure route :	Dermal
Exposure frequency :	longtime - systemic
Limit value :	300 mg/kg
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	longtime - systemic
Limit value :	2085 mg/m3

8.2 Exposure controls

Personal protection equipment

Eye/face protection
Eye glasses with side protection

Skin protection
Hand protection
Suitable gloves type : Gloves with long cuffs

Suitable material : NBR (Nitrile rubber)
Breakthrough time : >= 480 min
Thickness of the glove material : 0,5 mm
Recommended glove articles : DIN EN 374

Additional hand protection measures : Check leak tightness/impermeability prior to use. Do not wear gloves near rotary machines and tools. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Remark : The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection
lab coat Overall

Suitable protective clothing : For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes). Chemical resistant safety shoes Only wear fitting, comfortable and clean protective clothing.
Required properties : antistatic. flame-resistant heat-resistant
Recommended material : Natural fibres (e.g. cotton) heat-resistant synthetic fibres

Respiratory protection
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Respiratory protection necessary at: exceeding exposure limit values / aerosol or mist formation.

Suitable respiratory protection apparatus
Filtering device (full mask or mouthpiece) with filter : A
General health and safety measures
Wash hands before breaks and after work. Apply skin care products after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : viscous
Colour : black
Odour : paraffin

Safety relevant basis data

Melting point/melting range :			not determined		
Initial boiling point and boiling range :	(1013 hPa)		80,0 - 110,0	°C	
Decomposition temperature :			No data available		
Flash point :		approx.	-20	°C	DIN 51755 part 1
Ignition temperature :			250	°C	
Oxidising liquids :			No data available		
Lower explosion limit :			0,8	Vol-%	
Upper explosion limit :			6,5	Vol-%	
Explosive properties :			No data available		
Vapour pressure 20°C):	(20 °C)		No data available		
Dichte :	(15 °C)	approx.	1,92	g/cm3	
Water solubility :	(20 °C)		not miscible		
pH-value:	(20 °C / conc.)		not applicable		
log P O/W :			No data available		
Cinematic viscosity :	(40 °C)	<	20,5	mm2/s	(air = 1)
Odour threshold :			No data available		
Relative vapour density :	(20 °C)		No data available		
Vapourisation rate :			No data available		
Maximum VOC content (EC) :	(20 °C)		100	Gew-%	gem. RL 1999/13/EG
Max. VOC content (Decopaint):	(20 °C)		100	Gew-%	gem. RL 2004/42/EG

9.2 Other information
no more data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No information available.

10.2 Chemical stability
Stable under recommended storage and handling conditions(See section 7).

10.3 Possibility of hazardous reactions
Formation of explosive mixtures with: Air. Possible

10.4 Conditions to avoid
Only use the material in places where open light, fire and other flammable sources can be kept away.

10.5 Incompatible materials
Alkali (lye), concentrated. Acid, concentrated. Oxidising agent, strong.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects
Based on available data, the classification criteria are not met.

Acute oral toxicity

Parameter :	LD50
Exposure route :	Oral
Species :	Rat
Effective dose :	> 5000 mg/kg

Acute dermal toxicity

Parameter :	LD50
Exposure route :	Dermal
Species :	Rat
Effective dose :	> 2000 mg/kg

Irritant and corrosive effects

Primary irritation to the skin

Causes skin irritation.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2 Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

11.3 Symptoms related to the physical, chemical and toxicological characteristics

There are no data available on the preparation/mixture itself.

11.4 Other adverse effects

Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness, blistering, dermatitis, etc. Has degreasing effect on the skin.

11.5 Additional information

The product is classified and labelled according to EC directives or corresponding national laws. Classification according to Regulation (EC) No 1272/2008 [CLP] Toxicological data are not available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	NOELR
Effective dose :	1 - 10 mg/l

Chronic (long-term) fish toxicity

Parameter :	NOEC
Effective dose :	1 - 10 mg/l

Acute (short-term) daphnia toxicity

Parameter :	NOELR
Effective dose :	1 - 10 mg/l

Chronic (long-term) daphnia toxicity

Parameter :	NOEC
Effective dose :	0,1 - 1 mg/l

Acute (short-term) algae toxicity

Parameter :	NOELR
Effective dose :	10 - 100 mg/l

12.2 Persistence and degradability
Biodegradation

Parameter :	Biodegradation
Evaluation :	Readily biodegradable (according to OECD criteria).

12.3 Bioaccumulative potential
Based on the n-octanol/water partition coefficient accumulation in organisms is possible.

12.4 Mobility in soil negative.
Adsorption/Desorption

12.5 Results of PBT and vPvB assessment
negativ.

12.6 Other adverse effects
No information available.

12.7 Additional ecotoxicological information
None

SECTION 13: Disposal considerations

Dispose according to legislation.

13.1 Waste treatment methods
Product/Packaging disposal
Waste codes/waste designations according to EWC/AVV
Waste code product
Waste code (91/689/EEC) : 07 01 04*

13.2 Additional information
None

SECTION 14: Transport information

14.1 UN-Nummer
UN 3295

14.2 UN proper shipping name
Land transport (ADR/RID)
HYDROCARBONS, LIQUID, N.O.S.
Sea transport (IMDG)
HYDROCARBONS, LIQUID, N.O.S. (HYDROCARBONS, C6-C7, N-ALKANES, ISO-ALKANES, CYCLICS < 5% N-HEXANE)
Air transport (ICAO-TI / IATA-DGR)
HYDROCARBONS, LIQUID, N.O.S.

14.3 Transport hazard class(es)

Land transport (ADR/RID)	
Class(es) :	3
Classification code :	F1
Hazard identification number (Kemler No.) :	33
Tunnel restriction code :	D/E
Special provisions :	640D · E 2
Hazard label(s) :	3 / N
Sea transport (IMDG)	
Class(es) :	3
EmS-No. :	F-E / S-D
Special provisions :	E 2
Hazard label(s) :	3 / N
Air transport (ICAO-TI / IATA-DGR)	
Class(es) :	3
Special provisions :	E 2
Hazard label(s) :	3

14.4 Packing group II

14.5 Environmental hazards

Land transport (ADR/RID) :	Yes
Sea transport (IMDG) :	Yes (P)
Air transport (ICAO-TI / IATA-DGR) :	Yes

14.6 Special precautions for user
None

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
Water hazard class (WGK)
Class : 2 (Hazardous to water)

15.2 Chemical safety assessment
No information available.

SECTION 16: Other information

16.1 Indication of changes
11. STOT-single exposure · 15. Water hazard class (WGK)

16.2 Abbreviations and acronyms
None

16.3 Key literature references and sources for data
None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
No information available.

16.5 Relevant H- and EUH-phrases (Number and full text)
None

16.6 Training advice
None

16.7 Additional information
None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.