

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

- **Creation date version 1** 27.12.2010
- **1.1 Product identifier**
- **Trade name** NEUKASIL Crosslinker A 43
- **Utilization of the substance of the formulation:** Crosslinking agents for the production of elastomers
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Suter Kunststoffe AG
Aefligenstrasse 3
CH-3312 Fraubrunnen
Tel. +41 (0)31 763 60 60
Fax. +41 (0)31 763 60 61
e-mail: info@swiss-composite.ch
- **Further information obtainable from:** info@swiss-composite.ch
- **1.4 Emergency telephone number:**
Tox Info Suisse
Tel. 145 (International +41 (0)44 251 51 51)

SECTION 2: Hazards identification

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



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

- **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**



GHS02

- **Signal word** Warning
- **Hazard statements**
H226 Flammable liquid and vapour.
- **Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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· vPvB:

540-97-6 Dodecamethylcyclohexasiloxane

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Polydimethylsiloxan with reactive groups

· **Dangerous components:**

CAS: 68988-57-8	Silicic acid (H ₄ SiO ₄), tetraethyl ester, reaction products with chlorodimethylsilane Flam. Liq. 3, H226	50-75%
CAS: 540-97-6 EINECS: 208-762-8 Reg.nr.: 01-2119517435-42-0001	Dodecamethylcyclohexasiloxane non-classified vPvB substance	0.1-0.25%

· **SVHC**

540-97-6 Dodecamethylcyclohexasiloxane

- **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; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Do not induce vomiting; call for medical help immediately.
If swallowed, rinse mouth with water (only if the person is conscious).
A person vomiting while laying on their back should be turned onto their side.
Call a doctor immediately.
- **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.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Alcohol-resistant foam, carbon dioxide, sand. Under the blanket of foam can hydrogen gas are included, so remove for cleaning and recording sources of ignition.
- **For safety reasons unsuitable extinguishing agents:**
Water
Extinguishing powder
Halone
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
carbon dioxide
silicon dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Cool endangered receptacles with water spray.

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Collect contaminated fire fighting water separately. It must not enter the sewage system.

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SECTION 6: Accidental release measures**· 6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Particular danger of slipping on leaked/spilled product.

· 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**· 6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Do not flush with water or aqueous cleansing agents

· 6.4 Reference to other sections

Eliminate ignition sources. Material intended for disposal must be kept away from incompatible materials in accordance with point 10. Do not mix contaminated material with clean material consider information in section 07 ..

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage**· 7.1 Precautions for safe handling**

Take care by opening

Do not seal receptacles gas-tight.

provide for best ventilation in the work space

Does not in use Keep container closed. Keep away from incompatible materials in accordance with point 10.

If possible inerting equipment and containers filled with nitrogen to reduce the oxygen content

· Information about fire - and explosion protection:

Fumes can combine with air to form an explosive mixture.

Product can give off hydrogen. Within partially empty containers formation of explosive mixtures possible.

Keep away from fire or smoke. Keep away from open flames, heat sources and sparks. Measures against static discharges.

Keep ignition sources away - Do not smoke.

Protect from heat.

Protect against electrostatic charges.

· 7.2 Conditions for safe storage, including any incompatibilities**· Storage:****· Requirements to be met by storerooms and receptacles:**

Keep container tightly closed and dry and storage in a good ventilated room.

Storage temperature: 20 - 25 °C.

· Information about storage in one common storage facility:

Store away from flammable substances.

Does not store with, basic substances (eg alkalis, ammonia, amines), oxidizing agents, strong acids.

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Store away from foodstuffs.

· Further information about storage conditions:

Protect from frost.

Store receptacle in a well ventilated area.

Store in dry conditions.

Keep container tightly sealed.

Protect from heat and direct sunlight.

· Storage class: 3**· 7.3 Specific end use(s) No further relevant information available.**

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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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:**
Short term filter device:
Not necessary if room is well-ventilated.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
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**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Butyl rubber, BR
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

· Form:	Fluid
· Colour:	Colourless
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value:	Not determined.
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 - **Change in condition**

· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	67 °C

· Flash point:	43 °C
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· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	~265 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	1
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not determined.
· Density at 20 °C:	1.00385 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Insoluble.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	400 mPas
Kinematic:	Not determined.
· Solvent content:	
VOC (EC)	0.0 g/l
· 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:** To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions**
Danger of forming explosive hydrogen-air mixture when stored in enclosed spaces.
Reacts with metals forming hydrogen.
Reacts with: acids, alkaline substances (eg alkalis, ammonia, amines), alcohols, water, humidity, Oxidationsmittel, catalyst. The reaction causes the formation of hydrogen.
- **10.4 Conditions to avoid**
Moisture. Heat, open flames and other ignition sources. With contaminated pipes and tanks or corroded or rusty containers may lead to increased formation of hydrogen. Detail in section 7.
- **10.5 Incompatible materials:**
metal and metaloxide
water , alcohol , amine , base and acid
- **10.6 Hazardous decomposition products:**
Hydrogen
Measurements have shown that at temperatures from about 150 ° C by formation of small amount Formaldehyde is split off.

SECTION 11: Toxicological information

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

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· **LD/LC50 values relevant for classification:****68988-57-8 Silicic acid (H₄SiO₄), tetraethyl ester, reaction products with chlorodimethylsilane**

Oral LD50 5,000 mg/kg (rat)

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Oral LD50 2,000 mg/kg (rat)

Dermal LD50 2,000 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** irritation feasible
- **Serious eye damage/irritation** irritation feasible
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** 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** 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:** No further relevant information available.
- **12.2 Persistence and degradability** not biodegradable
- **Other information:**
- Deposition by sedimentation
- Elimination by adsorption onto activated sludge
- **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 1 (German Regulation) (Self-assessment): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

· **vPvB:**

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- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must be specially treated adhering to official regulations.
- **Waste disposal key:**
- For this product no waste code number can be determined as per the European Waste List, since the intended use by the consumer. The waste key number must be determined in consultation with the regional waste disposal.
- **Uncleaned packaging:**
- **Recommendation:**
- Disposal must be made according to official regulations.
- Containers may use dangerous amounts of hydrogen contain unclean container and not re-filled with other materials because of possible reaction between residual product and harmful material. Can not be cleaned containers like the recycling. The packaging should be emptied completely before they are recycled in compliance with the regulations


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SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG · IATA 	<p>Void UN1993 transport by airfreight not allowed</p>
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, ADN, IMDG · IATA 	<p>Void transport by airfreight not allowed</p>
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG · Class 	<p>Void</p>
<ul style="list-style-type: none"> · IATA  <p>transport by airfreight not allowed</p> <ul style="list-style-type: none"> · Class · Label 	<p>3 Flammable liquids. 3</p>
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG · IATA 	<p>Void III transport by airfreight not allowed</p>
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	<p>No</p>
<ul style="list-style-type: none"> · 14.6 Special precautions for user 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	<p>developed hydrogen transport by air not allowed Not dangerous according to the above specifications. heat sensitive up to + 40°C</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p>Void</p>

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
- Hazard pictograms



GHS02

- Signal word Warning
- Hazard statements
H226 Flammable liquid and vapour.
- Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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- P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Directive 2012/18/EU**
 - **Named dangerous substances - ANNEX I** None of the ingredients is listed.
 - **Seveso category P5c** FLAMMABLE LIQUIDS
 - **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
 - **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
 - **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
 - **National regulations:**
 - **Waterhazard class:** Water hazard class 1 (VwVwS 17.05.99): slightly hazardous for water.
 - **Other regulations, limitations and prohibitive regulations**
 - **Substances of very high concern (SVHC) according to REACH, Article 57**
- | | |
|----------|-------------------------------|
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|----------|-------------------------------|
- **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**
H226 Flammable liquid and vapour.
- **Recommended restriction of use**
The information in this safety data sheet corresponds to the best of our knowledge at the time of the revision. The information should give you clues for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The details are not transferable to other products. Insofar as the product mentioned in this safety data sheet is mixed with other materials, mixed or processed, or subjected to processing, the information in this safety data sheet, unless expressly stated otherwise, can not be transferred to the new material produced in this way.
Unless expressly described in chapter 1.2, Altropol products are for industrial use only. They are not intended for use in certain medical applications that are implanted, injected or taken directly (usually 30 days or more) into the human body, and are not intended for the manufacture of multiple-use contraceptives.
- **Department issuing SDS:** environment protection department
- **Contact:** Herr Ottensmann Tel. +49 (0)2056-25863-7
- **Abbreviations and acronyms:**
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 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)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 SVHC: Substances of Very High Concern
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 3: Flammable liquids – Category 3
- *** Data compared to the previous version altered.**