

SAFETY DATA SHEET according to Regulation 1907/2006

Product name: **Nanoflex SG70**

Creation date: **1.3.2018** · Revision: **2.3.2018** · Version: **1**



SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name

Signo Nanoflex SG70



chemius.net/Fub7d

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

Relevant identified uses

Coating.

Uses advised against

No information

1.3. Details of the supplier of the safety data sheet

Supplier

Signo Nano-Care UK Ltd

Address: PO Box 225, Oswestry, UK , SY10 8HA

Tel.: +44 1691 654282

Fax: +44 1691 654282

1.4. Emergency telephone number

Emergency

112

Supplier

Poison centre in Berlin (Giftnotruf Berlin): +49 (0)30 30686 790

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.

Skin Sens. 1; H317 May cause an allergic skin reaction.

Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70**



2.2 Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]



Signal word: **Danger**

H304 May be fatal if swallowed and enters airways.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

P102 Keep out of reach of children.

P261 Avoid breathing mist/vapours/spray.

P262 Do not get in eyes, on skin, or on clothing. P273 Avoid release to the environment.

P301 + P310 + P331 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local regulation.

2.2.2. Contains:

Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics (EC: 918-317-6)

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (EC: 918-481-9)

2-(3,4-epoxycyclohexyl)ethyltriethoxy silane (CAS: 10217-34-2, EC: 425-050-4, Index: 014-035-00-4)

2.2.3. Special provisions

Special hazards are not known or expected.

2.3. Other hazards

The substances in the mixture does not meet the PBT / vPvB criteria according to REACH, Annex XIII

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

For mixtures see 3.2.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70****3.2. Mixtures**

Name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	REACH Registration No.
Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics	- 918-317-6 -	25-<50	Asp. Tox. 1; H304 Aquatic Chronic 3; H412	01-2119474196-32
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	- 918-481-9 -	25-<50	Asp. Tox. 1; H304	01-2119457273-39
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	- 918-167-1 -	2,5-<5	Flam. Liq. 3; H226 Asp. Tox. 1; H304	01-2119472146-39
hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics	- 927-285-2 -	2,5-<5	Asp. Tox. 1; H304	01-2119480162-45
2-(3,4-epoxycyclohexyl)ethyltriethoxy silane	10217-34-2 425-050-4 014-035-00- 4	0,5-<2,5	Skin Sens. 1; H317 Aquatic Chronic 3; H412	01-0000017145-75

SECTION 4. FIRST AID MEASURES**4.1. Description of first aid measures**General notes

When in doubt or if symptoms do not disappear seek medical help. Show to physician Safety data sheet and label. Never give anything by mouth to an unconscious person. Place patient stably in side position for transportation.

No action shall be taken involving any personal risk or without suitable training.

Following inhalation

Remove patient to fresh air-move out of dangerous area. If symptoms persist seek medical attention. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. In case of unconsciousness bring patient into stable side position and seek medical attention.

Following skin contact

Take off all contaminated clothing. Wash affected skin areas thoroughly with plenty of water and soap! If feeling unwell seek medical help.

Following eye contact

Immediately flush eyes with running water, keeping eyelids open. If irritation persist, seek professional medical attention.

Following ingestion

Do not induce vomiting. Rinse mouth with water. Immediately consult a doctor. Show the physician the Safety Data Sheet or label.

4.2. Most important symptoms and effects, both acute and delayedInhalation

Excessive exposure to spray mist, fog, or vapour may cause respiratory irritation. Signs and symptoms: dizziness, fatigue, headache, nausea and vomiting.

Negative effects can affect liver, kidney, and central nervous system.

Skin contact

Contact with skin may cause irritation (redness, itching). May cause sensitisation by skin contact.

May cause drying/defatting on repeat or prolonged exposure.

Eye contact

Contact with eyes can cause irritation (redness, tearing, pain).

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70**Ingestion

May cause abdominal discomfort.

May cause nausea/vomiting and diarrhea.

Aspiration into the lungs causes coughing, shortness of breath and may lead to chemical pneumonia.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES**5.1. Extinguishing media**Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixtureHazardous combustion products

Flammable liquid and vapours. Vapours and air can form explosive mixtures. In case of a fire toxic gases can generate; do not inhale gases/smoke. Risk of formation of toxic pyrolysis products. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO₂).

5.3. Advice for firefightersProtective actions

The product floats on water and does not dissolve. In case of fire or heating do not breathe fumes/vapours. Cool containers at risk with water spray jet. If possible remove containers from endangered area. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective clothing for fire-fighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage

SECTION 6. ACCIDENTAL RELEASE MEASURES

system.

6.1. Personal precautions, protective equipment and emergency procedures**6.1.1. For non-emergency personnel****Protective equipment**

Use personal protective equipment (Section 8).

Emergency procedures

Ensure adequate ventilation. Keep away from sources of ignition; No smoking! No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

During intervention, use personal protective equipment (Section 8).

6.2. Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental entry into water or ground occurs, inform responsible authorities.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70****6.3. Methods and material for containment and cleaning up****6.3.1. For containment**

Stem the spill if this does not pose risks.

6.3.2. For cleaning up

Ventilate the premises. In case of bigger spill, dam the spillage, pump the liquid into appropriate labelled containers, absorb a residue with absorbent material and dispose of according to local regulations. Absorb product (with inert material), collect it in special container and dispose it according to valid regulations on handling with waste. Dispose in accordance with applicable regulations (see section 13).

6.3.3. Other information

-

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7. HANDLING AND STORAGE**7.1. Precautions for safe handling****7.1.1. Protective measures****Measures to prevent fire**

Ensure adequate ventilation. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. To protect from open fire and other sources of ignition or heat.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

7.1.2. Advice on general occupational hygiene

Use good personal hygiene practices-wash hands at breaks and when done working with material. Remove contaminated clothes and wash before re-use. Do not breathe vapours/mist. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Wear suitable protective equipment; see chapter 8.

7.2. Conditions for safe storage, including any incompatibilities**7.2.1. Technical measures and storage conditions**

Store in accordance with local regulations. Keep in well closed containers. Keep in a cool, dry and well ventilated place. Keep away from sources of ignition - No smoking. Protect against electrostatic charge build-up. Keep away from oxidising substances. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.

7.2.2. Packaging materials

Store in original container.

7.2.3. Requirements for storage rooms and vessels

The floor of the storage room must be impermeable and dam spilled liquid. Close open containers after use. Put the container upright to prevent from leaking. Do not store in unlabelled containers.

7.2.4. Storage class

-

7.2.5. Further information on storage conditions

-

7.3. Specific end use(s)**Recommendations**

-

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70****Industrial sector specific solutions**

-

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****8.1.1. Occupational Exposure limit values**

No information

8.1.2. Information on monitoring procedures

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

8.1.3. DNEL values

No information

8.1.4. PNEC values

No information

8.2. Exposure controls**8.2.1. Appropriate engineering control****Substance/mixture related measures to prevent exposure during identified uses**

Handle in accordance with good industrial hygiene and safety practice. Use good personal hygiene practices-wash hands at breaks and when done working with material. Avoid contact with eyes and skin. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in the area with increased concentration.

8.2.2. Personal protective equipment**Eye and face protection**

Tight fitting protective goggles (EN 166).

Hand protection

Protective gloves (EN 374). Follow the manufacturer's instructions for use, storage, maintenance and glove changing. In case of damage or at the first signs of wear and tear, change the gloves immediately. 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.

Skin protection

Cotton protective clothing (EN ISO 13688) and shoes that cover the entire foot (EN ISO 20345). At high risk of skin exposure are chemical suits (EN ISO 6530:2005) and boots may be required (EN ISO 20345:2012).

Respiratory protection

In case of insufficient ventilation wear mask (EN 140) with filter A2-P2 (EN 14387). 'High/elevated concentrations' means that the occupational exposure limit values have been exceeded. If the substance threshold is higher than the relative exposure limit or the concentration of oxygen in the workplace is less than 17% volume wear self-contained air breathing apparatus (EN 137, EN 138).

Thermal hazards

-

8.2.3. Environmental exposure controls**Technical measures to prevent exposure**

Do not allow product to reach drains, sewage systems or ground water.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70****SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

-	Physical state:	liquid
-	Colour:	according to specification
-	Odour:	characteristic

Important health, safety and environmental
information

-	pH	No information
-	Melting point/Freezing point	No information
-	Initial boiling point/boiling range	No information
-	Flash point	No information
-	Evaporation rate	No information
-	Flammability (solid, gas)	No information
-	Explosion limits (vol%)	No information
-	Vapour pressure	No information
-	Vapour density	No information
-	Density	No information
-	Solubility	No information
-	Partition coefficient	No information
-	Auto-ignition temperature	No information
-	Decomposition temperature	No information
-	Viscosity	No information
-	Explosive properties	No information
-	Oxidising properties	No information

9.2. Other information

-	Remarks:	
---	-----------------	--

SECTION 10. STABILITY AND REACTIVITY**10.1. Reactivity**

Stable under recommended transport or storage conditions.

10.2. Chemical stability

Product is stable under normal conditions according to handling and storage.

10.3. Possibility of hazardous reactions

Vapours and air can form flammable or explosive mixtures.

10.4. Conditions to avoid

Heat, sparks, flames and other ignition sources.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal use conditions no hazardous decomposition products expected. In case of fire/explosion vapours dangerous for health are spread. When heated to decomposition it emits CO₂ and CO.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70****SECTION 11. TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**11.1.1. Acute toxicity**For components**

Name	exp. route	Type	species	Time	value	Method	Remark
Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics (-)	oral	LD ₅₀	rat		> 5000 mg/kg		
Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics (-)	dermal	LD ₅₀	rabbit		> 5000 mg/kg		
Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics (-)	inhalation	LC ₅₀	rat		> 5 mg/l	OECD 403	
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	oral	LD ₅₀	rat		> 5000 mg/kg		
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	inhalation	LC ₅₀	rat		> 5 mg/l	OECD 403	
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	dermal	LD ₅₀	rabbit		> 5000 mg/kg		

11.1.2. Skin corrosion/irritation, serious eye damage/irritation**For components**

Name	exp. route	species	Time	result	Method	Remark
Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics (-)	dermal			Repeated exposure may cause skin dryness or cracking.		
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	dermal			Repeated exposure may cause skin dryness or cracking.		

11.1.3. Respiratory or skin sensitisation**Additional information**

May cause sensitization by skin contact.

11.1.4. Carcinogenicity, Mutagenicity, Reproductive toxicity**Carcinogenicity**

No information

(Germ cell) mutagenicity

No information

Reproductive toxicity

No information

Summary of evaluation of the CMR properties

No information

11.1.5. STOT - single and repeated exposure**Additional information**

May be fatal if swallowed and enters airways.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70**11.1.6. Aspiration hazard**For components**

Name	result	Method	Remark
Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics (-)	May be fatal if swallowed and enters airways.		
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	May be fatal if swallowed and enters airways.		

SECTION 12. ECOLOGICAL INFORMATION**12.1. Toxicity**12.1.1. Acute (short-term) toxicity**For components**

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics (-)	LL50	1000 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	OECD 203	
	EL ₅₀	1000 mg/L	48 h	daphnia	<i>Daphnia magna</i>	OECD 202	
	EL ₅₀	1000 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	OECD 201	
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	LL0	1000 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>		
	EL0	1000 mg/L	48 h	crustaceans	<i>Daphnia magna</i>		
	EL0	1000 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>		

12.1.2. Chronic (long-term) toxicity

No information

12.2. Persistence and degradability12.2.1. Abiotic degradation, physical- and photo-chemical elimination**For components**

Substance (CAS Nr.)	Environment	Type / Method	Half Time	Evaluation	Method	Remark
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	Air			Photolysis not expected		
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	Water	hydrolysis		not expected		

12.2.2. Biodegradation**For components**

Substance (CAS Nr.)	Organism	Rate	Time	Evaluation	Method	Remark
Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics (-)	-			readily biodegradable		
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	biodegradability	80 %	28 days	readily biodegradable		

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70****12.3. Bioaccumulative potential**12.3.1. Partition coefficient

No information

12.3.2. Bioconcentration factor (BCF)

No information

12.4. Mobility in soil12.4.1. Known or predicted distribution to environmental compartments

No information

12.4.2. Surface tension

No information

12.4.3. Adsorption/Desorption**For components**

Substance (CAS Nr.)	Organism	Criterion	value	Evaluation	Method	Remark
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (-)	Soil			Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.		

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No information

12.7. Additional information**For product**

Water hazard class 2 (Self-assessment): hazardous for water.

Do not allow to enter ground water, water course or sewage system.

Harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

For components**Substance: Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics**

This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Substance: hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Substance: Hydrocarbons, C11-C12, isoalkanes, <2% aromatics

Do not allow to reach ground water, water bodies or sewage systems.

Substance: hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

Do not allow to reach ground water, water bodies or sewage systems.

Substance: 2-(3,4-epoxycyclohexyl)ethyltriethoxy silane

Do not allow to reach ground water, water bodies or sewage systems.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70****SECTION 13. DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**13.1.1. Product / Packaging disposal**Waste chemical**

Dispose of in accordance with applicable waste disposal regulation. Do not dispose together with household garbage. Do not allow product to reach drains/sewage systems. Disposal must be made according to official regulations: to leave it to authorized collector/remover/transformer of hazardous waste. No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. No waste code number has been assigned to the product as from the European Waste Catalog because only the intended use by the consumer permits its assimilation. The waste code number must be determined within the EU in accordance with the waste disposal.

Packaging

Dispose of in accordance with applicable waste disposal regulation. Unclean containers are classified as hazardous waste - should be handled the same as waste disposal. Uncleaned containers should not be perforated, cut or welded. Completely emptied containers leave to approved waste disposal authorities in charge.

13.1.2. Waste treatment-relevant information

-

13.1.3. Sewage disposal-relevant information

-

13.1.4. Other disposal recommendations

-

SECTION 14. TRANSPORT INFORMATION**14.1. UN number**

not applicable

14.2. UN proper shipping name

ADR, RID, IMDG, ADN, IATA: Not dangerous according to transport regulations.

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

NO

14.6. Special precautions for user

not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70****SECTION 15. REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

15.1.2. Special instructions

-

The employment limitations under the regulations to the protection from hazardous materials of pregnant women and young mothers guideline and the protection of young persons act are to be observed.

Employment restrictions concerning juveniles must be observed.

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16. OTHER INFORMATIONIndication of changes

-

Key literature references and sources for data

-

List of relevant H phrases

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.



© BENS Consulting | www.bens-consulting.com

- ☐ Provided correct labelling of the product
- ☐ Compliance with the local legislation
- ☐ Provided correct classification of the product
- ☐ Provided adequate transport data

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this

SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Nanoflex SG70**

