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

Printing date 08.08.2019 *Version: 8.00* *Revision: 07.08.2019*

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

1.1 Product identifier

Trade name: SONAX SX90 PLUS

Article number:
04740410, 04741000, 04741410, 04742000, 04743000, 04744000
UFI: D960-405A-Y00C-4A3Y
1.2 Relevant identified uses of the substance or mixture and uses advised against
Sector of Use
SU21 Consumer uses: Private households / general public / consumers
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Product category PC24 Lubricants, greases, release products
Application of the substance / the mixture
Penetrating oil
Anticorrosion additive
Lubricant

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
SONAX GmbH
Münchener Straße 75
D-86633 Neuburg (Donau)
Tel.: ++49 (0)8431/53-0

Further information obtainable from:
Product safety
E-mail: erp@sonax.de
Phone: + +49 (0) 8431 53 217

1.4 Emergency telephone number: Emergency Phone Munich Tel.: +49 (0)89 19240

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

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 Danger
Hazard statements
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
Precautionary statements
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P260 Do not breathe spray.
P271 Use only outdoors or in a well-ventilated area.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Additional information:
Buildup of explosive mixtures possible without sufficient ventilation.
2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.

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vPvB: *Not applicable.*

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SECTION 3: Composition/information on ingredients

3.2 Mixtures
Description: *Formulation consisting of pressurised gas and mineral oil with additives in petroleum distillate*

Dangerous components:		
EC No 926-141-6 *Reg.nr.: 01-2119456620-43-xxxx*	*Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics* *Alternative CAS number: 64742-47-8* *Asp. Tox. 1, H304*	*25-<50%*
CAS: 8042-47-5 *EINECS: 232-455-8* *Reg.nr.: 01-2119487078-27-xxxx*	*White mineral oil, petroleum* *Asp. Tox. 1, H304*	*25-<50%*
CAS: 106-97-8 *EINECS: 203-448-7* *Reg.nr.: 01-2119474691-32-xxxx*	*butane* *Flam. Gas 1, H220; Press. Gas (Comp.), H280*	*5-<10%*
CAS: 74-98-6 *EINECS: 200-827-9* *Reg.nr.: 01-2119486944-21-xxxx*	*propane* *Flam. Gas 1, H220; Press. Gas (Comp.), H280*	*5-<10%*
CAS: 75-28-5 *EINECS: 200-857-2* *Reg.nr.: 01-2119485395-27-xxxx*	*isobutane* *Flam. Gas 1, H220; Press. Gas (Comp.), H280*	*1-<3%*
CAS: 1474044-79-5 *EC No 939-717-7* *Reg.nr.: 01-2119980985-16-xxxx*	*calcium bis(dinonylnaphthalenesulphonate)* *Skin Irrit. 2, H315; Eye Irrit. 2, H319*	*1-<3%*
CAS: 128-37-0 *EINECS: 204-881-4* *Reg.nr.: 01-2119555270-46-xxxx*	*2,6-di-tert-butyl-p-cresol* *Aquatic Acute 1, H400; Aquatic Chronic 1, H410*	*<0.25%*

Regulation (EC) No 648/2004 on detergents / Labelling for contents	
aliphatic hydrocarbons	*≥30%*

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:
Take affected persons out into the fresh air.
Remove soiled clothing
After inhalation:
Supply fresh air.
In the event of irritation of the respiratory tract, dizziness, nausea or unconsciousness, call medical assistance immediately .
After skin contact:
Wash the areas of skin affected with water and a mild detergent.
If symptoms persist consult doctor.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: *Do not induce vomiting; call for medical help immediately.*
4.2 Most important symptoms and effects, both acute and delayed
Breathing difficulty
Headache
Drowsiness
Nausea
4.3 Indication of any immediate medical attention and special treatment needed
Treatment in accordance with the doctor's assessment of the patient's condition. Symptomatic treatment.

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SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
Foam
Carbon dioxide
Fire-extinguishing powder
Water haze
For safety reasons unsuitable extinguishing agents: Water with full jet
5.2 Special hazards arising from the substance or mixture
Can form explosive gas-air mixtures.
In case of fire, the following can be released:
Carbon monoxide (CO)
Carbon dioxide (CO2)
Phosphorus oxides (e.g. P2O5)
5.3 Advice for firefighters
Protective equipment:
Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.
Wear fully protective suit.
Additional information
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Keep away from ignition sources.
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
6.2 Environmental precautions:
Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/ surface or ground water.
6.3 Methods and material for containment and cleaning up:
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
6.4 Reference to other sections
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
Ensure good ventilation/exhaustion at the workplace.
Buildup of explosive mixtures possible without sufficient ventilation.
When using product on electrical parts disconnect them from power supply first. Before re-assembly, let dry for 2 minutes.
Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
Do not spray onto a naked flame or any incandescent material.
Highly volatile, flammable constituents are released during processing.
Protect against electrostatic charges.

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7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Provide solvent resistant, sealed floor.
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:
Store receptacle in a well ventilated area.
Protect from heat and direct sunlight.
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
Recommended storage temperature: 20 °C.
7.3 Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
RCP-TWA (EU)	Long-term value: 1200 mg/m³, 165 ppm Vapour / Total Hydrocarbons
CAS: 106-97-8 butane	
WEL (Great Britain)	Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
CAS: 128-37-0 2,6-di-tert-butyl-p-cresol	
WEL (Great Britain)	Long-term value: 10 mg/m³

Regulatory information *WEL (Great Britain): EH40/2018*

DNELs		
CAS: 8042-47-5 White mineral oil, petroleum		
Oral	DNEL	40 mg/kg (consumer) (long-term exposure - systemic effects)
Dermal	DNEL	92 mg/kg bw/day (consumer) (long-term exposure - systemic effects)
		220 mg/kg bw/day (worker) (long-term exposure - systemic effects)
Inhalative	DNEL	35 mg/m³ (consumer) (long-term exposure - systemic effects)
	DNEL	160 mg/m³ (worker) (long-term exposure - systemic effects)
CAS: 1474044-79-5 calcium bis(dinonylnaphthalenesulphonate)		
Dermal	DNEL	10 mg/kg bw/day (worker) (longterm systematic effects)
Inhalative	DNEL	5 mg/m³ (vls) (longterm systematic effects)
CAS: 128-37-0 2,6-di-tert-butyl-p-cresol		
Dermal	DNEL	5 mg/kg (VL)
		8.3 mg/kg (worker)
Inhalative	DNEL	1.74 mg/m³ (VL)
		5.8 mg/m³ (worker)

PNECs		
CAS: 1474044-79-5 calcium bis(dinonylnaphthalenesulphonate)		
	PNEC	10 mg/l (sewage plant)
		0.004 mg/l (freshwater (Süßwasser))
		0.0004 mg/l (water (sea water))
	PNEC	69 mg/kg (sediment (fresh water))
		6.9 mg/kg (sediment (sea water))
		13.9 mg/kg (soil)
CAS: 128-37-0 2,6-di-tert-butyl-p-cresol		
Oral	PNEC	16.7 mg/kg food (human)
	PNEC	100 mg/l (sewage plant)
		0.004 mg/l (sporadic release)

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		0.004 mg/l (freshwater (Süßwasser))
		0.0004 mg/l (sediment (sea water))
	PNEC	1.29 mg/kg (sediment (fresh water))
		1.04 mg/kg (soil)

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls
Suitable technical control devices
Ensure good ventilation. This can be achieved by localised extraction or general ventilation. If this is not sufficient to keep the concentration below the occupational exposure limit, suitable breathing protection is to be worn.
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Wash hands before breaks and at the end of work.
Keep away from foodstuffs, beverages and feed.
Respiratory protection:
Not required in normal cases
If the occupational exposure limit is exceeded:
The following breathing protection is recommended:
Respiratory filter for organic gases and vapours (Type A)
Identification colour: Brown
[DIN EN 14387]
Protection of hands: Protective gloves
Material of gloves
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.4 mm
Penetration time of glove material Value for the permeation: Level 6 (≥480min)
Eye protection: Not required in normal cases

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SECTION 9: Physical and chemical properties

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

Form:	Aerosol
Colour:	brown-opaque
Odour:	Solvent-like
Odour threshold:	Not determined.
pH-value:	Not applicable.
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	180 - 270 °C (Active ingredient data)
Flash point:	85 °C (DIN 51758)
Flammability (solid, gas):	Not applicable.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Not determined.
Explosive properties:	In use, may form flammable/explosive vapour-air mixture.
Explosion limits:	
Lower:	0.6 Vol.% (Main ingredient data) 1.5 Vol.% (Propellant data)
Upper:	7.0 Vol.% (Main ingredient data) 10.9 Vol.% (Propellant data)
Vapour pressure:	Not determined.
Density at 20 °C:	0.84 - 0.85 g/cm³

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Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with water:	Not miscible or difficult to mix.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
Flow time at 23 °C	40-50 s (DIN EN ISO 2431/3mm) (Active ingredient data)
Kinematic at 40 °C:	<20.5 mm²/s (DIN 51562)
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No dangerous reactions known.
10.2 Chemical stability Stable under normal conditions.
10.3 Possibility of hazardous reactions Develops readily flammable gases/fumes.
10.4 Conditions to avoid
An increase in pressure may lead to bursting.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
Keep ignition sources away - Do not smoke.
See Section 7 for information on safe handling.
10.5 Incompatible materials: strong oxidizing agents
10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects There are no toxicological findings on this mixture.
Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:		
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics		
Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>5,000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/8h	>5,000 mg/m³ (rat) (OECD 403)
CAS: 8042-47-5 White mineral oil, petroleum		
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4d	>5,000 mg/l (rat)
CAS: 1474044-79-5 calcium bis(dinonylnaphthalenesulphonate)		
Oral	LD50	>2,500 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)
Inhalative	LC50	>9,000 mg/l (rat)
CAS: 128-37-0 2,6-di-tert-butyl-p-cresol		
Oral	LD50	>5,000 mg/kg (rat) (OECD-Prüfrichtlinie 401)
Dermal	LD50	>5,000 mg/kg (rat) (OECD-Prüfrichtlinie 402)

Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Repeated dose toxicity		
CAS: 1474044-79-5 calcium bis(dinonylnaphthalenesulphonate)		
Dermal	NOAL 90 d	100 mg/kg (rat) (OECD 408, 90d, target organ: liver)

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CAS: 128-37-0 2,6-di-tert-butyl-p-cresol		
Oral	NOAEL	25 mg/kg (Ratte)

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
None of the ingredients are known to have effects which are carcinogenic, mutagenic or harmful to 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 *There are no ecotoxicological data available on this mixture.*

Aquatic toxicity:	
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
LLO 96 h	1,000 mg/l (Oncorhynchus mykiss)
ELO 48 h	1,000 mg/l (Daphnia magna)
ELO 72 h	1,000 mg/l (Pseudokirchneriella subcapitata)
CAS: 8042-47-5 White mineral oil, petroleum	
LC50 / 96h	>100 mg/l (fish)
EC50 / 48h	>100 mg/l (daphnia)
NOEC/NOEL	≥100 mg/l (fish) (96h)
	≥100 mg/l (algae) (72h)
	≥100 mg/l (daphnia) (48h)
CAS: 106-97-8 butane	
LC50 / 96 h	27.98 mg/l (fish)
EC50 / 4 d	7.71 mg/l (algae)
CAS: 74-98-6 propane	
LC50 / 96 h	27.98 mg/l (fish)
EC50 / 96 h	7.71 mg/l (algae)
CAS: 75-28-5 isobutane	
LC50 / 96 h	27.98 mg/l (fish)
EC50 / 4 d	7.71 mg/l (algae)
CAS: 1474044-79-5 calcium bis(dinonylnaphthalenesulphonate)	
NOEL 21 d	2.2-10 mg/l (daphnia)
LC50 / 96h	>0.28 mg/l (fish)
EC50 / 48h	>0.27 mg/l (Daphnia magna)
NOEC / 72 h	>0.27 mg/l (algae)
CAS: 128-37-0 2,6-di-tert-butyl-p-cresol	
LC50 / 96h	>0.57 mg/l (Danio rerio)
EC50 / 48h	>0.17 mg/l (Daphnia magna)
IC50 / 72h	>0.42 mg/l (Desmodesmus subspicatus)
NOEC/NOEL	0.39 mg/l (Daphnia magna)

12.2 Persistence and degradability	
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
Biodegradiation	69 % (28d)
CAS: 8042-47-5 White mineral oil, petroleum	
Biodegradiation	>60 % (28d (OECD 301B))

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12.3 Bioaccumulative potential	
CAS: 1474044-79-5 calcium bis(dinonylnaphthalenesulphonate)	
BCF	3.16
log POW	>6.6 log POW
CAS: 128-37-0 2,6-di-tert-butyl-p-cresol	
log POW	5.1 log POW

12.4 Mobility in soil No further relevant information available.
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
Dangerous waste in accordance with the Directive on the List of Waste Materials
Recommendation Waste must be disposed of while observing the local, official regulations.
European waste catalogue
Disposal / product + Disposal / contaminated packaging

15 01 10*	packaging containing residues of or contaminated by dangerous substances

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:
Marine pollutant: No

14.6 Special precautions for user see Sections 6-8
Warning: Gases.

Transport/Additional information:

ADR
Limited quantities (LQ) 1L

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Transport category	2
Tunnel restriction code	D
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

National regulations:

Information about limitation of use:
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
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.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Classification according to Regulation (EC) No 1272/2008	
Aerosols	On basis of test data

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)
NOEL = No Observed Effect Level
NOEC = No Observed Effect Concentration
LC = letal Concentration
EC50 = half maximal effective concentration
log POW = Octanol / water partition coefficient
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ATE: acute toxicity estimate
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
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
IOELV = indicative occupational exposure limit values
Flam. Gas 1: Flammable gases – Category 1
Aerosol 1: Aerosols – Category 1
Press. Gas (Comp.): Gases under pressure – Compressed gas
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Version history and indication of changes: Replaces version 7.00.
*** Data compared to the previous version altered.**