

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 1 of 12

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Boge Syprem SX Art. 599026

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

Lubricant

1.3. Details of the supplier of the safety data sheet

Company name:	BOGE KOMPRESSOREN	
	Otto Boge GmbH & Co. KG	
Street:	Otto-Boge-Straße 1-7	
Place:	33739 Bielefeld	
Telephone:	+49 5206 601-0	Telefax: +49 5206 601-200
E-mail:	info@boge.com	
Internet:	www.boge.com	

1.4. Emergency telephone number: Emergency telephone number (24h) +1 872 5888271 (JRR) (en)**Further Information**

Reserved for industrial and professional use.

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Hazard statements**

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

Endocrine disrupting properties: 2,6-Di-tert-butyl-4-methylphenol.
The components in this formulation do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 2 of 12

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No		
	Classification (GB CLP Regulation)			
118685-24-8	Pentaerythritol ester of heptanoic, caprylic, capric and isononanoic acids			10 - < 15 %
	601-552-0			
	Aquatic Chronic 4; H413			
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene			2.5 - < 5 %
	270-128-1			
	Repr. 2; H361f			
128-37-0	2,6-Di-tert-butyl-4-methylphenol			0.1 - < 1 %
	204-881-4			
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
68411-46-1	270-128-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	2.5 - < 5 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	
128-37-0	204-881-4	2,6-Di-tert-butyl-4-methylphenol	0.1 - < 1 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2930 mg/kg	

Further Information

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Seek medical attention if problems persist. No administration in cases of unconsciousness or cramps. In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation

Move victim to fresh air. Put victim at rest and keep warm.

After contact with skin

Remove contaminated, saturated clothing immediately. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Seek medical advice.

After ingestion

Do NOT induce vomiting. In case of swallowing, keep the patient at rest and contact a doctor. Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 3 of 12

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Advice for firefighters: alcohol resistant foam, Water spray jet, Carbon dioxide (CO₂) Use extinguishing powder to extinguish.**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 dioxide (CO₂).

Carbon monoxide

Nitrogen oxides (NO_x).**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to minimise or disperse vapours. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

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

Provide adequate ventilation. Wear suitable protective clothing.

See protective measures under point 7 and 8.

For non-emergency personnel

Take off immediately all contaminated clothing and wash it before reuse.

For emergency responders

The danger areas must be delimited and identified using relevant warning and safety signs. Move victim out of danger zone.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**For containment**

Prevent spread over a wide area (e.g. by containment or oil barriers). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Avoid oil mist

Take precautionary measures against static discharge.

Use only in well-ventilated areas.

Direct contact with skins avoid.

When using do not eat, drink or smoke.

Advice on protection against fire and explosion

Prevent access by unauthorised personnel.

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 4 of 12

Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work.

Further information on handling

When using do not eat, drink or smoke.

High slip hazard because of leaking or spilled product.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Store only in original container. Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

Do not store with strong oxidizing agents.

Further information on storage conditions

te regulations relating to storage premises apply to workshops where the product is handled.

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
128-37-0	2,6-Di-tert-butyl-p-cresol	-	10		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene			
Worker DNEL, long-term		inhalation	systemic	0,31 mg/m ³
Worker DNEL, long-term		dermal	systemic	0,44 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,14 mg/m ³
Consumer DNEL, long-term		dermal	systemic	0,04 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,04 mg/kg bw/day

PNEC values

CAS No	Substance	Value
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	
Freshwater		0,034 mg/l
Marine water		0,00338 mg/l
Freshwater sediment		0,446 mg/kg
Marine sediment		0,0446 mg/kg
Microorganisms in sewage treatment plants (STP)		10 mg/l
Soil		1,76 mg/kg

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 5 of 12

Additional advice on limit values

Diphenylamin, octyliert (Benzolamin,N-Phenyl-, Reaktionsprodukte mit 2,4,4- Trimethylpenten) [68411-46-1]
MAK vgl. Abschn. IIb und Xc

8.2. Exposure controls



Appropriate engineering controls

When using do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye protection/face protection.
Tightly sealed safety glasses.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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. Butyl rubber. NBR (Nitrile rubber). PVC (Polyvinyl chloride).

Skin protection

Wear suitable protective clothing. Chemical resistant safety shoes.
Take off immediately all contaminated clothing.
Thorough skin-cleansing after handling the product.
Set out skin protection guidelines.

Respiratory protection

Provide fresh air. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Thermal hazards

Remove all sources of ignition.

Environmental exposure controls

No further relevant information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	light yellow; clear
Odour:	Mineral oil
Odour threshold:	not determined

	Test method
Melting point/freezing point:	not applicable
Boiling point or initial boiling point and boiling range:	not applicable
Flammability:	not applicable
Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Flash point:	265 °C ASTM D 93
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 6 of 12

pH-Value (at 20 °C):	not determined	DIN 51369
Viscosity / kinematic: (at 40 °C)	66,5 mm ² /s	ASTM D 445
Water solubility:	completely miscible	
Solubility in other solvents	not determined	
Partition coefficient n-octanol/water:	not determined	
Vapour pressure: (at 20 °C)	< 0,1 hPa	
Vapour pressure:	not determined	
Density (at 20 °C):	0,7 g/cm ³	ASTM D-4052
Relative vapour density:	not determined	

9.2. Other information**Information with regard to physical hazard classes**

Explosive properties

not explosive.

Self-ignition temperature

Solid:

not determined

Gas:

not determined

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate:

not determined

Solid content:

not determined

Pour point:

-42 °C ASTM D 97

Viscosity / dynamic:

61,2 - 74,8 mPa·s

(at 40 °C)

Further InformationVapour density (20°C): > 1 g/cm³**SECTION 10: Stability and reactivity****10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

10.4. Conditions to avoid

Protect from direct sunlight. Protect against: heat.

10.5. Incompatible materials

Do not store with strong oxidizing agents. The following must be prevented: Oxidizing agents, strong. acid.

10.6. Hazardous decomposition products

Hazardous decomposition products: none

SECTION 11: Toxicological information**11.1. Information on hazard classes****Acute toxicity**

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 7 of 12

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene				
	oral	LD50 > 5000 mg/kg	Rat	ECHA	OECD 401
	dermal	LD50 > 2000 mg/kg	Rat	ECHA	
128-37-0	2,6-Di-tert-butyl-4-methylphenol				
	oral	LD50 > 2930 mg/kg	Rat		OECD 401
	dermal	LD50 > 2000 mg/kg	Rat		OECD 402

Irritation and corrosivity

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

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects 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.

Additional information on tests

No risks worthy of mention. Practical experience.

The statement is derived from the properties of the single components.

11.2. Information on other hazards**Endocrine disrupting properties**

Endocrine disrupting properties: 2,6-Di-tert-butyl-4-methylphenol.

Other information

No further relevant information available.

SECTION 12: Ecological information**12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 8 of 12

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Danio rerio	OECD 203	
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Desmodesmus subspicatus	OECD 201	
	Acute crustacea toxicity	EC50 51 mg/l	48 h	Daphnia magna	OECD 202	
	Algae toxicity	NOEC 10-100 mg/l	3 d	Algae	OECD 201	
	Crustacea toxicity	NOEC 1,69 mg/l	21 d	Daphnia magna	OECD 211	
	Acute bacteria toxicity	EC50 > 100 mg/l ()		Bacteria	OECD 209	
128-37-0	2,6-Di-tert-butyl-4-methylphenol					
	Acute fish toxicity	LC50 > 0,57 mg/l	96 h	Danio rerio		EU methode C.1
	Acute algae toxicity	ErC50 0,4 mg/l	72 h	Desmodesmus subspicatus		EU method C.3
	Acute crustacea toxicity	EC50 0,48 mg/l	48 h	Daphnia magne		OECD 201
	Fish toxicity	NOEC 0,053 mg/l		Oryzias latipes	42 d	OECD 210
	Crustacea toxicity	NOEC 0,023 mg/l		Daphnia	21 d	
	Acute bacteria toxicity	EC50 > 0,4 mg/l ()		Desmodesmus subspicatus		EU methode C.3

12.2. Persistence and degradability

The product has not been tested.

The product has not been tested.				
CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene			
	OECD 301 B	1%	28	
	Not easily bio-degradable (according to OECD-criteria).			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	> 6,66
128-37-0	2,6-Di-tert-butyl-4-methylphenol	5,1

BCF

CAS No	Chemical name	BCF	Species	Source
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	1730	Cyprinus carpio	MITI
128-37-0	2,6-Di-tert-butyl-4-methylphenol	1277		

12.4. Mobility in soil

- Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene CAS 68411-46-1: 8,947 log Koc (QSAR)

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 9 of 12

- Butylhydroxytoluol CAS 128-37-0: 4,2 log K_{oc} (QSAR)**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

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

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 11: Toxicological information

12.7. Other adverse effects

Avoid release to the environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

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List of Wastes Code - used product

.

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Personal protection equipment: see section 8

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 10 of 12

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

Directive 2010/75/EU on industrial emissions: 0,0

Directive 2004/42/EC on VOC in paints and varnishes: 0,0

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 2, 11.

AICS (Australien), DSL (Kanada), IECSC (China), REACH (Europäische Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (Neuseeland), PICCS (Philippinen), TSCA (USA)

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 11 of 12

Abbreviations and acronyms

Repr. 2: Reproductive toxicity, hazard category 2
 Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1
 Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1
 Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3
 Aquatic Chronic 4: Hazardous to the aquatic environment, long-term hazard category: Chronic 4
 CLP: Classification, labelling and Packaging
 REACH: Registration, Evaluation and Authorization of Chemicals
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
 UN: United Nations
 CAS: Chemical Abstracts Service
 DNEL: Derived No Effect Level
 DMEL: Derived Minimal Effect Level
 PNEC: Predicted No Effect Concentration
 ATE: Acute toxicity estimate
 LC50: Lethal concentration, 50%
 LD50: Lethal dose, 50%
 LL50: Lethal loading, 50%
 EL50: Effect loading, 50%
 EC50: Effective Concentration 50%
 ErC50: Effective Concentration 50%, growth rate
 NOEC: No Observed Effect Concentration
 BCF: Bio-concentration factor
 PBT: persistent, bioaccumulative, toxic
 vPvB: very persistent, very bioaccumulative
 ADR: Accord européen sur le transport des marchandises dangereuses par Route
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Regulations concerning the international carriage of dangerous goods by rail
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
 intérieures)
 IMDG: International Maritime Code for Dangerous Goods
 EmS: Emergency Schedules
 MFAG: Medical First Aid Guide
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 IBC: Intermediate Bulk Container
 VOC: Volatile Organic Compounds
 SVHC: Substance of Very High Concern

Classification for mixtures and used evaluation method

Classification	Classification procedure
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H361f Suspected of damaging fertility.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.
 H413 May cause long lasting harmful effects to aquatic life.

Further Information

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

Safety Data Sheet

according to UK REACH Regulation

Boge Syprem SX Art. 599026

Revision: 01.01.2026

Product code: 599026

Page 12 of 12

processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)