	SAFETY DATA SHEET	Page : 1 / 10
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-306S

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

1.1. Product identifier

Trade name/designation : 4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND
Product code : 8M0096727

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

Main use category : Industrial use, Professional use, Consumer use
Specific end use(s) : Lubricants

1.3. Details of the supplier of the safety data sheet

Company : Brunswick Marine EMEA
Parc industriel de Petit-Rechain, Avenue Mercury 8
4800 Verviers, Belgium
Telephone +32 (0)87 32 32 11
E-mail: bme.compliance@brunswick.com

1.4. Emergency telephone number

Emergency telephone : 0032 3 575 55 55

Ireland

National Poisons Information Centre
Beaumont Hospital

+353 1 809 21 66 (public, 8am - 10pm, 7/7)
+353 01 809 2566 (Professionals, 24/7)

United Kingdom

National Poisons Information Service
(Newcastle Centre)
Regional Drugs and Therapeutics Centre,
Wolfson Unit

0844 892 0111 (UK only, 24/7, healthcare professionals only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EU) 1272/2008

CLP-Classification : This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

Eye Irrit. 2 H319

Aquatic Chronic 3 H412

Full text of H-statements: see section 16


2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC


Classification : This mixture is classified as hazardous according to 1999/45/EC.
R52/53

Full text of R-phrases: see section 16

2.2. Label elements

2.2.1. Labelling according to Regulation (EU) 1272/2008

	SAFETY DATA SHEET	Page : 2 / 10
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-306S

Hazard pictograms (CLP)	:	
		GHS07
Signal word	:	Warning
Hazard statements (CLP)	:	H319 - Causes serious eye irritation. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	:	P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention. P501 - Dispose of contents/container to .
Extra phrases	:	EUH208 - Contains Molybdenum polysulphide long chain alkyl dithiocarbamate complex. May produce an allergic reaction.

2.2.2. Labelling according to Directives (67/548 - 1999/45)

Not relevant

2.3. Other hazards

Other hazards	:	Results of PBT and vPvB assessment Not applicable
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SECTION 3: Composition/information on ingredients


3.1. Substances

Not applicable

3.2. Mixtures

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	(CAS-No.) 93819-94-4 (EC-No.) 298-577-9 (REACH-no) 01-2119543726-33-XXXX	1 - 2,5	Xi; R41 Xi; R38 N; R51/53
Nonylphenol, branched, ethoxylated substance listed as REACH Candidate	(CAS-No.) 68412-54-4 (EC-No.) 500-209-1 (EC Index) -	0,1 - 0,5	Xi; R36/38 N; R50/53
Phenol, dodecyl-, branched	(CAS-No.) 121158-58-5 (EC-No.) 310-154-3 (EC Index) 604-092-00-9 (REACH-no) 01-2119513207-49-XXXX	0,1 - 0,25	N; R50/53 Repr.Cat.3; R62 Xi; R36/38
Molybdenum polysulphide long chain alkyl dithiocarbamate complex	(CAS-No.) - (EC-No.) 457-320-2 (EC Index) -	0,1 - 0,25	Xi; R38 R43 R52/53

Substance name	Product identifier	%	Classification (EC) No. 1272/2008 [CLP]
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	(CAS-No.) 93819-94-4 (EC-No.) 298-577-9 (REACH-no) 01-2119543726-33-XXXX	1 - 2,5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Nonylphenol, branched, ethoxylated substance listed as REACH Candidate	(CAS-No.) 68412-54-4 (EC-No.) 500-209-1 (EC Index) -	0,1 - 0,5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Phenol, dodecyl-, branched	(CAS-No.) 121158-58-5 (EC-No.) 310-154-3 (EC Index) 604-092-00-9 (REACH-no) 01-2119513207-49-XXXX	0,1 - 0,25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361f Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

	SAFETY DATA SHEET	Page : 3 / 10
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-306S

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Molybdenum polysulphide long chain alkyl dithiocarbamate complex	(CAS-No.) - (EC-No.) 457-320-2 (EC Index) -	0,1 - 0,25	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	: Remove person to fresh air and keep comfortable for breathing. In case of doubt or persistent symptoms, consult always a physician
Skin contact	: Take off contaminated clothing. Gently wash with plenty of soap and water. In case of doubt or persistent symptoms, consult always a physician
Eyes contact	: Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of doubt or persistent symptoms, consult always a physician
Ingestion	: Rinse mouth thoroughly with water. Get medical advice/attention.
Additional advice	: First aider: Pay attention to self-protection Concerning personal protective equipment to use, see section 8 Never give anything by mouth to an unconscious person In case of doubt or persistent symptoms, consult always a physician Show this safety data sheet to the doctor in attendance. Treat symptomatically.

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

Inhalation	: No adverse effects are expected. The following symptoms may occur:
Skin contact	: The following symptoms may occur: No adverse effects are expected.
Eyes contact	: Causes serious eye irritation. The following symptoms may occur: erythema (redness).
Ingestion	: The following symptoms may occur: May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media


Suitable extinguishing media	: Water spray, alcohol resistant foam, Dry extinguishing powder, Carbon dioxide
For safety reasons unsuitable extinguishing agents	: Strong water jet

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Non flammable
Specific hazards	: Heating causes rise in pressure with risk of bursting. Hazardous combustion products Carbon oxides

5.3. Advice for firefighters

Advice for firefighters	: Special protective equipment for firefighters. In case of fire: Wear self-contained breathing apparatus.
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	SAFETY DATA SHEET	Page : 4 / 10
		Revision nr : 1.1
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Issue date : 25/03/2015
		Supersedes : 766-01-306S

Use water spray or fog for cooling exposed containers
Do not allow run-off from fire-fighting to enter drains or water courses.
Dispose of waste in accordance with environmental legislation
Evacuate personnel to a safe area

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel :
- Evacuate personnel to a safe area
 - Stay upwind/keep distance from source.
 - Provide adequate ventilation
 - Use personal protective equipment as required.
 - Concerning personal protective equipment to use, see section 8
 - Do not breathe vapour/aerosol
- For emergency responders :
- Avoid contact with skin, eyes and clothing
 - Ensure procedures and training for emergency decontamination and disposal are in place
 - Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

- Environmental precautions :
- Do not allow to enter into surface water or drains
 - Notify authorities if product enters sewers or public waters

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up :
- Stop leak if safe to do so.
 - Dam up.
 - Clean-up methods - small spillage: Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or powdered limestone, Collect in closed and suitable containers for disposal.
 - Clean-up methods - large spillage: Large spills should be collected mechanically (remove by pumping) for disposal, Collect in closed and suitable containers for disposal.
 - Dispose of waste product or used containers according to local regulations.


6.4. Reference to other sections

- Concerning personal protective equipment to use, see section 8
Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Handling :
- Provide adequate ventilation
 - Use personal protective equipment as required.
 - Concerning personal protective equipment to use, see section 8
 - Do not breathe vapour/aerosol
 - Avoid contact with skin, eyes and clothing
 - Take any precaution to avoid mixing with incompatible materials.
 - See also section 10
 - Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time).
 - Do not allow contact with soil, surface or ground water.
- Advices on general occupational hygiene :
- Keep good industrial hygiene
 - Wash hands before breaks and immediately after using the product.
 - When using do not eat, drink or smoke.
 - Keep away from food, drink and animal feedingstuffs
 - Keep work clothes separately.
 - Take off contaminated clothing.
 - Wash contaminated clothing before reuse.

	SAFETY DATA SHEET	Page : 5 / 10
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-306S

7.2. Conditions for safe storage, including any incompatibilities

- Storage : Keep in a dry, cool and well-ventilated place. (< 40 °C)
Do not store near or with any of the incompatible materials listed in section 10.
Bund storage facilities to prevent soil and water pollution in the event of spillage.
- Packaging materials : Keep/Store only in original container.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

- Exposure limit values : No data available


8.2. Exposure controls

- Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Half-face mask (EN 140)
Full face mask (EN 136)
Filter type: ABEK + P
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)
- Hand protection : Wear chemically resistant gloves (tested to EN374) ,Suitable material: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.
- Eye protection : Use suitable eye protection. (EN166): Goggles
- Body protection : Wear suitable protective clothing.
- Thermal hazard protection : Not required for normal conditions of use
Use dedicated equipment.
- Engineering measure(s) : Provide adequate ventilation
Organisational measures to prevent /limit releases, dispersion and exposure
Safe handling: see section 7 .
- Environmental exposure controls : Do not allow contact with soil, surface or ground water.
Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Appearance : liquid
- Colour : Yellow /, brown
- Odour : Characteristic
- Odour threshold : No data available
- pH : No data available
- Melting / freezing point : No data available

	SAFETY DATA SHEET	Page : 6 / 10
		Revision nr : 1.1
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Issue date : 25/03/2015
		Supersedes :
		766-01-306S

Initial boiling point and boiling range	: No data available
Flash point	: > 200 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable, liquid
Upper / lower flammability or explosive limits	: No data available
Vapour pressure	: No data available
Vapour density	: No data available
Density	: 899 kg/m ³ (15 °C)
Relative density	: No data available
Water solubility	: Slightly soluble
Solubility in different media	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Kinematic viscosity	: 195 mm ² /s (40 °C)
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity : None under normal processing.
Reference to other sections

10.2. Chemical stability

Chemical stability : The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions : None under normal processing.

10.4. Conditions to avoid

Conditions to avoid : Safe handling: see section 7

10.5. Incompatible materials

Incompatible materials : Strong oxidizing agents, Acids, Bases, Safe handling: see section 7

10.6. Hazardous decomposition products


Hazardous decomposition products : Reference to other sections: 5.2

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4)	
LD50/oral/rat	2600 mg/kg
LD50/dermal/rabbit	> 3160 mg/kg (OECD 402)
LC50/inhalation/4h/rat	> 2 mg/l (1h - OECD 403) read-across approach

	SAFETY DATA SHEET	Page : 7 / 10
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-306S

Skin corrosion/irritation	: Not classified pH: No data available
Serious eye damage/irritation	: Causes serious eye irritation. pH: No data available
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Other information	: Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.

Other information

Symptoms related to the physical, chemical and toxicological characteristics, For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Toxicity : Harmful to aquatic life with long lasting effects.

zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) (93819-94-4)	
LC50 fish 1	4,5 mg/l Oncorhynchus mykiss) 96h (OECD 203)
EC50 Daphnia 1	5,4 mg/l (48 h) (OECD 202)
EC50 72h algae (1)	2,1 mg/l (Selenastrum capricornutum) 48 h (OECD 201)


Nonylphenol, branched, ethoxylated (68412-54-4)	
EC50 Daphnia 1	< 1 mg/l

Molybdenum polysulphide long chain alkyl dithiocarbamate complex (-)	
EC50 Daphnia 1	50 mg/l (48 h)
NOEC (acute)	94,8 mg/l (Oncorhynchus mykiss) 96h (OECD 203)
NOEC chronic algae	100 mg/l (Daphnia Magna) 21days

Phenol, dodecyl-, branched (121158-58-5)	
LC50 fish 1	40 mg/l (Pimephales promelas)
EC50 Daphnia 1	0,037 mg/l
EC50 other aquatic organisms 1	0,36 mg/l (Chlorophyta)
EC50 Daphnia 2	0,0079 mg/l (21days)
EC50 other aquatic organisms 2	> 1000 mg/l (0,1days)
EC50 96h algae (1)	> 0,58 mg/l (Mysidopsis Bahia)
NOEC (chronic)	0,0037 mg/l (21days, Daphnia)

12.2. Persistence and degradability

Persistence and degradability : Minimally biodegradable

	SAFETY DATA SHEET	Page : 8 / 10
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-306S

12.3. Bioaccumulative potential

Bioaccumulative potential : No data available
 Partition coefficient n-octanol/water : No data available

12.4. Mobility in soil

Mobility in soil : No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB data : Not applicable

12.6. Other adverse effects

Other information : No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product waste: : Do not allow contact with soil, surface or ground water.
 Dispose of empty containers and wastes safely
 Safe handling: see section 7
 Refer to manufacturer/supplier for information on recovery/recycling
 Recycling is preferred to disposal or incineration
 If recycling is not possible, eliminate in accordance with local valid waste disposal regulations

Contaminated packaging : Handle contaminated packages in the same way as the substance itself.
 Dispose of contaminated materials in accordance with current regulations

European waste catalogue : This material and its container must be disposed of as hazardous waste.
 Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

14.1. UN number

UN number : NA

14.2. UN proper shipping name

Proper Shipping Name : NA
 Proper shipping name IATA/IMDG : NA

14.3. Transport hazard class(es)

14.3.1. Overland transport

ADR/RID : Not classified for this transport way.
 Class(es) : Not applicable

14.3.2. Inland waterway transport (ADN)

ADN : Not classified for this transport way.

14.3.3. Transport by sea


IMDG : Not classified for this transport way.
 Class or Division : Not applicable

14.3.4. Air transport

ICAO/IATA : Not classified for this transport way.
 Class or Division : Not applicable

14.4. Packing group

Packing group : NA

	SAFETY DATA SHEET	Page : 9 / 10
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-306S

14.5. Environmental hazards

Other information : Not applicable.

14.6 Special precautions for user

Special precautions for user : Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Code: IBC : Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC.

Authorisations : none
: Not applicable

15.1.2. National regulations

DE : WGK : 3

15.2. Chemical safety assessment


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

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Aquatic Acute 1	: Hazardous to the aquatic environment - Aquatic Acute 1
Aquatic Chronic 1	: Hazardous to the aquatic environment - chronic hazard category 1
Aquatic Chronic 2	: Hazardous to the aquatic environment - chronic hazard category 2
Aquatic Chronic 3	: Hazardous to the aquatic environment - chronic hazard category 3
Eye Dam. 1	: Serious eye damage/eye irritation Category 1
Eye Irrit. 2	: Serious eye damage/eye irritation Category 2
Repr. 2	: Reproductive toxicity, Hazard Category 2
Skin Irrit. 2	: Skin corrosion/irritation, Category 2
Skin Sens. 1	: Skin sensitisation, hazard category 1
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H361f	: Suspected of damaging fertility.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.
EUH208	: Contains Molybdenum polysulphide long chain alkyl dithiocarbamate complex. May produce an allergic reaction.
R52/53	: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Key literature references and sources for data : LOLI
http://www.echemportal.org
MSDS

	SAFETY DATA SHEET	Page : 10 / 10
		Revision nr : 1.1
	4-STROKE ENGINE OIL SAE 25W-50 SYNTHETIC BLEND	Issue date : 25/03/2015
		Supersedes : 766-01-306S

Abbreviations and acronyms

: ABM = Algemene beoordelingsmethodiek
ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods Code
LEL = Lower Explosive Limit/Lower Explosion Limit
UEL = Upper Explosion Limit/Upper Explosive Limit
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
BTT = Breakthrough time (maximum wearing time)
DMEL = Derived Minimal Effect level
DNEL = Derived No Effect Level
EC50 = Median Effective Concentration
EL50 = Median effective level
ErC50 = EC50 in terms of reduction of growth rate
ErL50 = EL50 in terms of reduction of growth rate
EWC = European waste catalogue
LC50 = Median lethal concentration
LD50 = Median lethal dose
LL50 = Median lethal level
NA = Not applicable
NOEC = No observed effect concentration
NOEL: no-observed-effect level
NOELR = No observed effect loading rate
NOAEC = No observed adverse effect concentration
NOAEL = No observed adverse effect level
N.O.S. = Not Otherwise Specified
OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
PNEC = Predicted No Effect Concentration
Quantitative structure-activity relationship (QSAR)
STOT = Specific Target Organ Toxicity
TWA = time weighted average
VOC = Volatile organic compounds
WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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