



Issuing Date 19-Feb-2014

Revision Date 15-Jun-2016

Version 5

Safety Data Sheet

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s) 18-EU9551-2, 18-EU9551-2R, 18-EU9551-3, 18-EU9551-3R, 18-EU9551-6, 18-EU9551-7
Product name Sierra Synthetic Blend FC-W 10W-40 Motor Oil

Pure substance/mixture Mixture

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

Sold to the general public? Yes
Recommended Use Engine oil, Lubricant

Uses advised against All Other Uses

1.3. Details of the supplier of the safety data sheet

Manufacturer	Supplier
Hicks Oils	Sierra International
845 N. Hickory Street	1 Sierra Place
Du Quoin, IL 62832	Litchfield, IL 62056
TEL: 1-618-542-5431	Tel: 1-217-324-9487

For further information, please contact

E-mail address frode.hammer@seastarsolutions.com

1.4. Emergency telephone number

Emergency Telephone No information available

Emergency Telephone - §45 - (EC)1272/2008	
Europe	112
Austria	+43 1 406 43 43
Belgium	070 245 245
Denmark	Giftlinjen 82 12 12 12
Finland	09 471977
France	+ 33 (0) 1 45 42 59 59
Germany	06131/19240 Mainz 030/19240 Berlin 06841/19240 Homburg 0228/19240 Bonn
Ireland	01 8092566 or 01 8379964
Italy	118
Netherlands	Nationaal Vergiftigingen Informatie Centrum 030-274 8888
Norway	Giftinformasjonen -22591300
Portugal	CIAV 808 250 143
Spain	+ 34 91 562 04 20
Sweden	112 08-331231
United Kingdom	08454 24 24 24 111

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

2.2. Label elements

Product identifier

2.3. Other hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances****3.2 Mixtures**

Chemical name	EC No	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Petroleum distillates, hydrotreated heavy paraffinic	265-157-1	64742-54-7	79.01	Carc. 1B (H350)	01-2119484627-25-0074
Mineral Oils	-	MIXTURE	0-19	Asp. Tox. 1 (H304)	See Note Below
Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	218-679-9	2215-35-2	0.5-0.99	Aquatic Chronic 2 (H411) Eye Dam. 1 (H318) Skin Irrit. 2 (H315)	01-2119953275-34
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	283-392-8	84605-29-8	0.1-0.49	Aquatic Chronic 2; H411 Eye Dam. 1; H318 Skin Irrit. 2; H315	01-2119493626-26
Phenol, dodecyl-, branched	310-154-3	121158-58-5	0.01-0.09	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Eye Irrit. 2 (H319) Repr. 2 (H361) Skin Irrit. 2 (H315)	01-2119513207-49
Diphenylamine	204-539-4	122-39-4	0.01-0.09	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
Toluene	203-625-9	108-88-3	0.002	Skin Irrit. 2 (H315) Repr. 2 (H361d) STOT SE 3 (H336) STOT RE 2 (H373) Asp. Tox. 1 (H304) Flam. Liq. 2 (H225)	No data available

Full text of H- and EUH-phrases: see section 16**Additional information**

The mineral oil contained may be described by one or more of the following: EC No. 265-157-1, Registration No. 01-2119484627-25, Distillates (petroleum), hydrotreated heavy paraffinic; EC No. 265-169-7, Registration No. 01-2119471299-27, Distillates (petroleum), solvent-dewaxed heavy paraffinic; EC No. 265-158-7, Registration No. 01-2119487077-29, Distillates (petroleum), hydrotreated light paraffinic; EC No. 265-159-2, Registration No. 01-2119480132-48, Distillates (petroleum), solvent-dewaxed light paraffinic.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice	No hazards which require special first aid measures.
Inhalation	Move exposed persons to fresh air. Consult medical personnel if breathing issues occur.
Skin contact	Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention.
Eye contact	Flush eyes for 30 minutes with water. Get medical attention if irritation persists.
Ingestion	Do NOT induce vomiting. Consult a physician.

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

Symptoms	No information available.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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Section 5: FIRE FIGHTING MEASURES**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂). Dry chemical. Foam. Water can be used to keep surrounding materials cool.

Small Fires	Always use personal safety equipment. Follow appropriate personal safety procedures, and extinguishing media.
Large Fires	Contact emergency personnel.

Unsuitable extinguishing media

No information available

5.2. Special hazards arising from the substance or mixture

Combustible material

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

Section 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures****Personal protection**

Avoid contact with the skin and the eyes. Eye protection or face shield should be used if material is used under conditions that increase the chances of splattering. Wash skin with soap and water if contact occurs. Launder soiled clothing. If spilled, take caution, as material can cause surfaces to become very slippery.

Small spill: Remove sources of heat or ignition, provide adequate ventilation, contain leak using absorbent, inert, non-combustible material. Large Spill: Contain spill, transfer to secure containers. In the event of an uncontrolled material release, the user should determine if release is reportable under applicable laws and regulations.

For emergency responders

Clean up area with absorbent material and place in closed containers for disposal.

6.2. Environmental precautions

Local authorities should be advised if significant spillages cannot be contained. Keep out of waterways.

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

Cover with earth, sand, or other non-combustible material followed with plastic sheets to minimize spreading or contact with rain.

Methods for cleaning up

Excess liquid material can be collected using a scoop or shovel and stored for recycling or disposal. Prevent material from entering drains or waterways.

6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE**7.1. Precautions for safe handling****Advice on safe handling**

Avoid contact with skin, eyes and clothing. Eye protection or face shield should be used if material is used under conditions that increase the chances of splattering. If contact is made, wash skin with soap and water. Launder soiled clothing. Maximum handling temperature is 70 degrees C (158 F). It is recommended to pump or transfer material at ambient temperature.

General Hygiene Considerations

Remove and wash contaminated clothing before re-use.

7.2. Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep away from heat and sources of ignition. Keep containers closed when not in use. Follow first aid measures if contact occurs, and spill procedures if spill occurs. For packaged material: Store in a cool dry area. For bulk material: store in cool dry area. Always follow local, state, and federal guidelines for storage of material for amount stored.

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

Engine oil, Lubricant.

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

Chemical name	European Union	United Kingdom	France	Spain	Germany
Diphenylamine 122-39-4	-	STEL: 20 mg/m ³ TWA: 10 mg/m ³	TWA: 10 mg/m ³	VLA-ED: 10 mg/m ³ VLA-ED	TWA: 5 mg/m ³ Ceiling / Peak: 10 mg/m ³
Toluene 108-88-3	TWA: 50 ppm TWA: 192 mg/m ³	STEL: 100 ppm STEL: 384 mg/m ³ TWA: 191 mg/m ³ TWA: 50 ppm Skin	TWA: 20 ppm TWA: 76.8 mg/m ³ TWA: 1000 mg/m ³ STEL: 100 ppm STEL: 384 mg/m ³ STEL: 1500 mg/m ³	S* VLA-EC: 100 ppm VLA-EC: 384 mg/m ³ VLA-EC VLA-ED: 50 ppm VLA-ED: 192 mg/m ³ VLA-ED	TWA: 50 ppm TWA: 190 mg/m ³ Ceiling / Peak: 200 ppm Ceiling / Peak: 760 mg/m ³
Chemical name	Italy	Portugal	The Netherlands	Finland	Denmark

Diphenylamine 122-39-4	-	TWA: 10 mg/m ³	MAC: 0.7 mg/m ³ MAC	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³
Toluene 108-88-3	-	TWA: 50 ppm	MAC: 40 ppm MAC; 150 mg/m ³ MAC	TWA: 50 ppm TWA: 190 mg/m ³ STEL: 380 mg/m ³ STEL: 100 ppm Skin	TWA: 25 ppm TWA: 94 mg/m ³ Skin
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Diphenylamine 122-39-4	Skin STEL 1.4 ppm STEL (inhalable fraction); 10 mg/m ³ STEL (inhalable fraction) MAK: 0.7 ppm MAK (inhalable fraction); 5 mg/m ³ MAK (inhalable fraction)	-	-	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³
Toluene 108-88-3	Skin STEL 100 ppm STEL; 380 mg/m ³ STEL MAK: 50 ppm MAK; 190 mg/m ³ MAK	STEL: 200 ppm STEL: 760 mg/m ³	NDSch: 200 mg/m ³ NDS: 100 mg/m ³ Skin	TWA: 25 ppm TWA: 94 mg/m ³ Skin STEL: 141 mg/m ³ STEL: 37.5 ppm	TWA: 188 mg/m ³ TWA: 50 ppm STEL: 100 ppm STEL: 560 mg/m ³ Skin

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face Protection

If splashes are likely to occur, wear: Goggles. Eye/face Protection.

Skin and body protection

Suitable protective clothing.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

-

Appearance

Amber colored liquid

Odor

Mild petroleum odor

Color

amber

Odor threshold

No information available

Property

Values

Remarks • Method

pH

No information available

Melting point/freezing point

No information available

Boiling Point/Range

No information available

Flash point

> 96.1 °C / > 205 °F

Cleveland open cup (COC)

Evaporation rate

No information available

Flammability (solid, gas)

No information available

Flammability Limit in Air

Upper flammability limit:

No information available

Lower flammability limit:

No information available

Vapor pressure

No information available

Vapor density

No information available

Specific gravity

0.86-0.88

No information available

Water solubility

No information available

Solubility in other solvents

No information available

Partition coefficient

No information available

Autoignition temperature

No information available

Decomposition temperature		No information available
Kinematic viscosity	100-110 @40C cSt	No information available
Dynamic viscosity		No information available
Explosive properties	No information available	
Oxidizing properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content	No information available
Density	No information available
Bulk density	No information available

Section 10: STABILITY AND REACTIVITY**10.1. Reactivity**

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions**Hazardous polymerization**

Hazardous polymerization does not occur.

Possibility of Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

Excessive heat. High energy sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

None under normal use conditions.

Section 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Acute toxicity****Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation	Inhalation of vapors in high concentration may cause irritation of respiratory system.
Eye contact	Avoid contact with eyes. Causes Eye Irritation.
Skin contact	Repeated exposure may cause skin dryness or cracking.
Ingestion	Do NOT taste or swallow.

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 5,120.00
ATEmix (dermal) 5,120.00

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Petroleum distillates, hydrotreated heavy paraffinic	> 15 g/kg (Rat)		
Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	= 2000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	= 2000 mg/kg (Rat)	> 3200 mg/kg (Rabbit)	
Phenol, dodecyl-, branched	= 2100 mg/kg (Rat)	= 5 mL/kg (Rabbit)	
Diphenylamine	= 1120 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	
Toluene	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation Irritating to eyes.

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity Mineral oils are known to cause cancer because of carcinogenic components (e.g. benzene). The mineral oil in this product is highly refined and should not be considered a carcinogen. Used lubricating oil may contain hazardous components which have the potential to cause skin cancer. Continuous long-term contact with used lubricating oils has caused skin cancer in animal tests. .

Chemical name	European Union
Petroleum distillates, hydrotreated heavy paraffinic	Carc. 1B

Reproductive toxicity Contains ingredients that are suspected reproductive hazards.

Developmental toxicity Contains ingredients that have suspected developmental hazards.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Petroleum distillates, hydrotreated heavy paraffinic	-	5000: 96 h Oncorhynchus mykiss mg/L LC50	1000: 48 h Daphnia magna mg/L EC50
Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	1.0 - 5.0: 96 h Pseudokirchneriella subcapitata mg/L EC50	25 - 50: 96 h Pimephales promelas mg/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 semi-static	4.0 - 6.0: 48 h Daphnia magna mg/L EC50
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	-	10 - 100: 96 h Pimephales promelas mg/L LC50 static 38: 96 h Pimephales promelas mg/L LC50 100: 96 h Pimephales promelas mg/L LC50 semi-static	0.1 - 1: 48 h Daphnia magna mg/L EC50

Phenol, dodecyl-, branched	-	0.14: 96 h Oncorhynchus clarki mg/L LC50	-
Diphenylamine	1.5: 72 h Scenedesmus subspicatus mg/L EC50	3.47 - 4.14: 96 h Pimephales promelas mg/L LC50 flow-through	1.69 - 2.46: 48 h Daphnia magna mg/L EC50
Toluene	12.5: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 433: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.0 - 15.0: 96 h Lepomis macrochirus mg/L LC50 static 14.1 - 17.16: 96 h Oncorhynchus mykiss mg/L LC50 static 15.22 - 19.05: 96 h Pimephales promelas mg/L LC50 flow-through 5.89 - 7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 50.87 - 70.34: 96 h Poecilia reticulata mg/L LC50 static 12.6: 96 h Pimephales promelas mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 54: 96 h Oryzias latipes mg/L LC50 static	5.46 - 9.83: 48 h Daphnia magna mg/L EC50 Static 11.5: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Chemical name	Partition coefficient
Diphenylamine	3.5
Toluene	2.65

12.4. Mobility in soil**Mobility in soil**

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods**Waste from residues/unused products**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Improper disposal or reuse of this container may be dangerous and illegal.

Section 14: TRANSPORT INFORMATION

IMDG/IMO**14.1 UN-No**

Not regulated

14.2 Proper shipping name

Not regulated

14.3 Hazard Class

Not regulated

14.4 Packing group	Not regulated
14.5 Marine pollutant	Not Applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN-No	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not Applicable
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None

ADR

14.1 UN-No	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None

ICAO

14.1 UN-No	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None

IATA

14.1 UN-No	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

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

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

TSCA	Does not comply
DSL/NDL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H225 - Highly flammable liquid and vapor
H301 - Toxic if swallowed
May be fatal if swallowed and enters airways.
H311 - Toxic in contact with skin
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H331 - Toxic if inhaled
H336 - May cause drowsiness or dizziness
H350 - May cause cancer
H361 - Suspected of damaging fertility or the unborn child
H361d - Suspected of damaging the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
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

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value		

Issuing Date 19-Feb-2014

Revision Date 15-Jun-2016

Reason Note SDS sections updated, 1.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet