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# Lucas Synthetic SAE 20W-50 API SN Motor Oil

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 08/06/2015 Version: 1.0



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

#### 1.1. Identification

Product form : Mixture  
Product name : Lucas Synthetic SAE 20W-50 API SN Motor Oil  
Product code : 10054, 10060, 10108, 10135, 10397

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

Use of the substance/mixture : Lubricants

#### 1.3. Details of the supplier of the safety data sheet

Lucas Oil Products, Inc  
302 North Sheridan Street  
Corona, California 92880-2067 - USA  
T (951) 270-0154 - F (951) 270-1902  
[GHewgill@lucasoil.com](mailto:GHewgill@lucasoil.com) - [www.LucasOil.com](http://www.LucasOil.com)

#### 1.4. Emergency telephone number

Emergency number : (951) 493-1149 (951) 847-5949 7:00 A.M. to 5:00 P.M. Monday thru Friday

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Repr. 2 H361 - Suspected of damaging fertility or the unborn child

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US) : Warning  
Hazard statements (GHS-US) : H361 - Suspected of damaging fertility or the unborn child  
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves  
P308+P313 - If exposed or concerned: Get medical advice/attention  
P405 - Store locked up  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

#### 2.3. Other hazards

Other hazards not contributing to the classification : Harmful to aquatic life with long lasting effects.

#### 2.4. Unknown acute toxicity (GHS US)

10 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)  
10 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)  
10 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

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### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	(CAS No) 2215-35-2	< 1.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	(CAS No) 84605-29-8	< 1.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Phenyl, dodecyl-, branched	(CAS No) 121158-58-5	< 0.15	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Diphenylamine	(CAS No) 122-39-4	< 0.15	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting unless directed to do so by medical personnel.

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

Symptoms/injuries

Chronic symptoms : May damage fertility. May damage the unborn child.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : No particular fire or explosion hazard.
- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Danger of slipping on leaked or spilled product.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Stop leak, if possible without risk. Ventilate spillage area.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.



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### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

Section 7: safe handling. Section 8: personal protective equipment. Section 13: disposal information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from: Incompatible materials. Keep container closed when not in use. Keep cool.

Incompatible products : Strong oxidizing agents.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Diphenylamine (122-39-4)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	Liver & kidney dam; hematologic eff

### 8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Hand protection : Wear protective gloves. nitrile rubber gloves.

Eye protection : In case of splashing or aerosol production: protective goggles. Eye protection should only be necessary where liquid could be splashed or sprayed.

Respiratory protection : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Use an approved respirator equipped with oil/mist cartridges.

Environmental exposure controls : Avoid release to the environment.

Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Amber viscous liquid.

Color : Amber

Odor : petroleum

Odor threshold : No data available

pH : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : 221 °C

Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : No data available

Explosive limits : No data available

Explosive properties : No data available

Oxidizing properties : No data available

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Vapor pressure	: No data available
Relative density	: 0.865
Relative vapor density at 20 °C	: No data available
Solubility	: insoluble in water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: 158 cSt @ 40 °C
Viscosity, dynamic	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Likely routes of exposure	: Dermal
Acute toxicity	: Not classified

#### zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) (2215-35-2)

LD50 oral rat	2000 - 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
ATE US (oral)	2000.000 mg/kg bodyweight

#### Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)

LD50 oral rat	3100 mg/kg
LD50 dermal rat	> 2002 mg/kg
LC50 inhalation rat (mg/l)	> 2.3 mg/l/4h
ATE US (oral)	3100.000 mg/kg bodyweight

#### Diphenylamine (122-39-4)

ATE US (oral)	100.000 mg/kg bodyweight
ATE US (dermal)	300.000 mg/kg bodyweight
ATE US (gases)	700.000 ppmV/4h
ATE US (vapors)	3.000 mg/l/4h
ATE US (dust, mist)	0.500 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified based on vendor mixture classification. Mixture rules not used.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified



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Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	
Chronic symptoms	: May damage fertility. May damage the unborn child.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
LC50 fish 1	4.5 mg/l
EC50 Daphnia 1	23 mg/l
ErC50 (algae)	21 mg/l
NOEC (acute)	1.8 mg/l
NOEC chronic crustacea	0.8 mg/l

Diphenylamine (122-39-4)	
LC50 fish 1	4.14 ppm
EC50 Daphnia 1	2.46 mg/l
EC50 other aquatic organisms 1	0.36 mg/l

#### 12.2. Persistence and degradability

Lucas Synthetic SAE 20W-50 API SN Motor Oil	
Persistence and degradability	May cause long-term adverse effects in the environment.

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
Biodegradation	1.5 % 28 days

Diphenylamine (122-39-4)	
Persistence and degradability	Not established.

#### 12.3. Bioaccumulative potential

Lucas Synthetic SAE 20W-50 API SN Motor Oil	
Bioaccumulative potential	Not established.

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
Log Kow	0.56

Diphenylamine (122-39-4)	
Bioaccumulative potential	Not established.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Effect on ozone layer	: None known
Effect on the global warming	: None known
Other information	: Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.

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### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Not considered a dangerous good for transport regulations

#### TDG

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) (2215-35-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

##### Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

##### Phenyl, dodecyl-,branched (121158-58-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

##### Diphenylamine (122-39-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

##### CANADA

##### zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) (2215-35-2)

Listed on the Canadian DSL (Domestic Substances List)

##### Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)

Listed on the Canadian DSL (Domestic Substances List)

##### Diphenylamine (122-39-4)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

##### zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) (2215-35-2)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on KECI (Korean Existing Chemicals Inventory)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on Taiwan National Chemical Inventory  
Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

##### Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)

Not listed on the Inventory of Existing Chemical Substances of China (IECSC).  
Listed on KECI (Korean Existing Chemicals Inventory)  
Listed on Taiwan National Chemical Inventory  
Listed on the AICS (Australian Inventory of Chemical Substances)

##### Phenyl, dodecyl-,branched (121158-58-5)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on KECI (Korean Existing Chemicals Inventory)  
Listed on Taiwan National Chemical Inventory  
Listed on NZIoC (New Zealand Inventory of Chemicals)



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### Diphenylamine (122-39-4)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on KECI (Korean Existing Chemicals Inventory)  
Listed on Taiwan National Chemical Inventory  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on NZIoC (New Zealand Inventory of Chemicals)

### 15.3. US State regulations

#### Diphenylamine (122-39-4)

U.S. - Minnesota - Hazardous Substance List  
U.S. - New Jersey - Right to Know Hazardous Substance List

## SECTION 16: Other information

Indication of changes	: Original Document.
Data sources	: Component Supplier SDSs. European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <a href="http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database">http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database</a> . European Chemicals Agency (ECHA) Registered Substances list. European Standards: Personal Protective Equipment; accessed at: <a href="http://ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/personal-protective-equipment/index_en.htm">http://ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/personal-protective-equipment/index_en.htm</a> . Internal Company test data. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
Abbreviations and acronyms	: ATE: Acute Toxicity Estimate. CAS (Chemical Abstracts Service) number. EC50: Environmental Concentration associated with a response by 50% of the test population. GHS: Globally Harmonized System (of Classification and Labeling of Chemicals). LD50: Lethal Dose for 50% of the test population. TWA: Time Weighted Average

### Full text of H-phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 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
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H361	Suspected of damaging fertility or 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

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SDS US (GHS HazCom 2012)

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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*