



UNITED ONE FULLY SYNTHETIC SAE 0W40

SECTION 1: IDENTIFICATION OF THE HAZARDOUS CHEMICAL AND OF THE SUPPLIER

1.1 Product identifier: UNITED ONE FULLY SYNTHETIC SAE 0W40

Other means of identification:

Not applicable

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Lubricant

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Supplier details (including name, address, phone number, etc.):

UNITED OIL COMPANY PTE LTD
14 Tuas Drive 2, Singapore 638647
638647 Singapore - Singapore - Singapore
Phone.: +65 6861 1157 - Fax: +65 6861 3101
enquiry@united-oil.com
<http://www.united-oil.com/default.aspx?uc=14>

1.4 Emergency phone number: +65 68611157

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the hazardous chemical:

P.U. (A) 310/2013:

The product is not classified as hazardous chemical according to the Industry Code of Practice on Chemical Classification and Hazard Communication (ICOP).

2.2 Label elements:

P.U. (A) 310/2013:

None

2.3 Other hazards which do not result in classification:

Not applicable

SECTION 3: COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE HAZARDOUS CHEMICAL

3.1 Substances:

Not applicable

3.2 Mixtures:

Chemical description: Mixture based on hydrocarbons and additives

Components:

In accordance with Fifth Schedule of the P.U. (A) 310/2013 , the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 68037-01-4	Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated Asp. Tox. 1: H304 - Danger	25 - <50 %
CAS: 64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic , < 3 % IP 346, < 20.5 cSt @ 40°C Asp. Tox. 1: H304 - Danger	25 - <50 %
CAS: 113706-15-3	Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoocetyl) esters, zinc salts Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	1 - <2.5 %
CAS: Not applicable	Long chain alkyl phenol Skin Sens. 1: H317; STOT RE 2: H373 - Warning	<1 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary first-aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

- CONTINUED ON NEXT PAGE -



UNITED ONE FULLY SYNTHETIC SAE 0W40

SECTION 4: FIRST-AID MEASURES (continued)

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Not applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:**Suitable extinguishing media:**

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂).

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Physicochemical hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:

Avoid spillage into the aquatic environment as it contains substances potentially dangerous for this. Contain the product absorbed in hermetically sealed containers. In the case of serious spillage into the aquatic environment notify the relevant authority.

6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

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UNITED ONE FULLY SYNTHETIC SAE 0W40

SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

Maximum time: 6 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

There are no occupational exposure limits for the substances contained in the product

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as PPE


As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 <p>Hand protection</p>	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using chemical protection gloves

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.


D.- Ocular and facial protection

- CONTINUED ON NEXT PAGE -



UNITED ONE FULLY SYNTHETIC SAE 0W40



SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION (continued)

Pictogram	PPE	Remarks
 Face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Bodily protection

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration.
	Anti-slip work shoes	Replace before any evidence of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C: Liquid
 Appearance: Not available
 Color: Not available
 Odor: Not available
 Odour threshold: Not applicable *

Volatility:

Boiling point at atmospheric pressure: Not applicable *
 Vapour pressure at 20 °C: Not applicable *
 Vapour pressure at 50 °C: Not applicable *
 Evaporation rate at 20 °C: Not applicable *

Product description:

Density at 20 °C: 880.9 kg/m³
 Relative density at 20 °C: 0.881
 Dynamic viscosity at 20 °C: Not applicable *
 Kinematic viscosity at 20 °C: Not applicable *
 Kinematic viscosity at 40 °C: ~75.38 cSt
 Kinematic viscosity at 100 °C: ~13.6 cSt
 Concentration: Not applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -



UNITED ONE FULLY SYNTHETIC SAE 0W40

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

pH:	Not applicable *
Vapour density at 20 °C:	Not applicable *
Partition coefficient n-octanol/water 20 °C:	Not applicable *
Solubility in water at 20 °C:	
Solubility properties:	Not applicable *
Decomposition temperature:	Not applicable *
Melting point/freezing point:	Not applicable *
Explosive properties:	Not applicable *
Oxidising properties:	Not applicable *
Flammability:	
Flash Point:	>200 °C
Heat of combustion:	Not applicable *
Flammability (solid, gas):	Not applicable *
Autoignition temperature:	Not applicable *
Lower flammability limit:	Not applicable *
Upper flammability limit:	Not applicable *
Explosive:	
Lower explosive limit:	Not applicable *
Upper explosive limit:	Not applicable *
9.2 Other information:	
Surface tension at 20 °C:	Not applicable *
Refraction index:	Not applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

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UNITED ONE FULLY SYNTHETIC SAE 0W40

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met.
- Contact with the eyes: Based on available data, the classification criteria are not met.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met.
IARC: Distillates (petroleum), hydrotreated heavy paraffinic , < 3 % IP 346, < 20.5 cSt @ 40°C (3)
- Mutagenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met.
- Cutaneous: Based on available data, the classification criteria are not met.

F- Specific target organ toxicity (STOT) - single exposure:

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

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met.
- Skin: Based on available data, the classification criteria are not met.

H- Aspiration hazard:

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

Other information:

Not applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Distillates (petroleum), hydrotreated heavy paraffinic , < 3 % IP 346, < 20.5 cSt @ 40°C CAS: 64742-54-7	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated CAS: 68037-01-4	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts CAS: 113706-15-3	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	Not applicable	
Long chain alkyl phenol CAS: Not applicable	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	Not applicable	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	>5000 mg/kg (Calculation method)	Not applicable
Dermal	>5000 mg/kg (Calculation method)	Not applicable
Inhalation	>20 mg/L (4 h) (Calculation method)	Not applicable

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UNITED ONE FULLY SYNTHETIC SAE 0W40

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity:

Identification	Acute toxicity		Species	Genus
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoocetyl) esters, zinc salts CAS: 113706-15-3	LC50	>1 - 10 mg/L (96 h)		Fish
	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Not applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL INFORMATION

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Malaysia legislation related to waste management:

ACT 127 - ENVIRONMENTAL QUALITY ACT 1974

ACT A1102 - ENVIRONMENTAL QUALITY (AMENDMENT) ACT 2001

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to MS 1513:

- 14.1 UN number:** Not applicable
- 14.2 UN proper shipping name:** Not applicable
- 14.3 Transport hazard class(es):** Not applicable
- Labels: Not applicable
- 14.4 Packing group, if applicable:** Not applicable
- 14.5 Environmental hazard:** No
- 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection either within or outside their premises**
- Physico-Chemical properties: see section 9
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable

Transport of dangerous goods by sea:

With regard to IMDG 39-18:

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UNITED ONE FULLY SYNTHETIC SAE 0W40

SECTION 14: TRANSPORT INFORMATION (continued)

- 14.1 UN number:** Not applicable
14.2 UN proper shipping name: Not applicable
14.3 Transport hazard class(es): Not applicable
Labels: Not applicable
14.4 Packing group, if applicable: Not applicable
14.5 Marine pollutant: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection either within or outside their premises
Special regulations: Not applicable
EmS Codes:
Physico-Chemical properties: see section 9
Limited quantities: Not applicable
Segregation group: Not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Transport of dangerous goods by air:

With regard to IATA/ICAO 2021:

- 14.1 UN number:** Not applicable
14.2 UN proper shipping name: Not applicable
14.3 Transport hazard class(es): Not applicable
Labels: Not applicable
14.4 Packing group, if applicable: Not applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Occupational safety and health (classification, labelling and safety data sheet of hazardous chemicals) regulations 2013
Occupational safety and health (notification of accident, dangerous occurrence, occupational poisoning and occupational disease) regulations 2004
Occupational safety and health (use and standards of exposure of chemicals hazardous to health) regulations 2000
Occupational safety and health (safety and health officer) regulations 1997
Occupational safety and health (safety and health committee) regulations 1996
Occupational safety and health (control of industrial major accident hazards) regulations 1996

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Part 3 of the INDUSTRY CODE OF PRACTICE ON CHEMICALS CLASSIFICATION AND HAZARDS COMMUNICATION 2014

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

P.U. (A) 310/2013:

- CONTINUED ON NEXT PAGE -



UNITED ONE FULLY SYNTHETIC SAE 0W40

SECTION 16: OTHER INFORMATION (continued)

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Eye Dam. 1: H318 - Causes serious eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1: H317 - May cause allergic skin reaction.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Department of Occupational Safety and Health, Ministry of Human Resources of Malaysia: <http://www.dosh.gov.my/>

Abbreviations and acronyms:

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at Malaysian level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET