

# SAFETY DATA SHEET



XN006143E

## Section 1. Identification

**Product name** : XN006143E  
**Product description** : base oil and additives

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

**Identified uses** : Cylinder oil  
**Uses advised against** : This product is not recommended for any industrial, professional or consumer use other than the Identified Uses above.

**Supplier** : ExxonMobil Asia Pacific Pte.Ltd. (Company No.: 196800312N)  
1 HarbourFront Place  
#06-00 HarbourFront Tower One 098633 Singapore

**24 Hour Emergency Telephone** : 800 101 2201 / +65 3158 1349 (CHEMTREC)

**Supplier General Contact** : (65) 6885 8000  
**FAX** : (65) 6885 8938

## Section 2. Hazards identification

**Classification of the substance or mixture** : Not classified.

This material is considered to be NON-HAZARDOUS according to regulatory guidelines.

**Other hazards which do not result in classification** : None known.

**Nota** : This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

| Ingredient name                                                       | %  | Identifiers      |
|-----------------------------------------------------------------------|----|------------------|
| tetrapropenyl phenol                                                  | <1 | Proprietary      |
| calcium long chain alkaryl sulphonate                                 | ≤1 | CAS: 722503-68-6 |
| benzenamine, n-phenyl-, reaction products with 2,4,4-trimethylpentene | ≤1 | CAS: 68411-46-1  |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion products** : Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, sulfur oxides

**Special protective actions for fire-fighters** : Use standard firefighting procedures and consider the hazards of other involved materials. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Assure an extended cooling down period to prevent re-ignition. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. No action shall be taken involving any personal risk or without suitable training.

## Section 5. Firefighting measures

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Confine the spill immediately with booms. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants. Warn other shipping. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Static Accumulator** : This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name                                           | Exposure limits                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| distillates (petroleum), hydrotreated heavy paraffinic    | <b>Workplace Safety and Health Act (Singapore, 2/2006) [Oil Mist, mineral]</b><br>PEL (long term) 8 hours: 5 mg/m <sup>3</sup> . Form: Mist.<br>PEL (short term) 15 minutes: 10 mg/m <sup>3</sup> . Form: Mist.<br><b>ACGIH TLV (United States, 1/2024) [Mineral Oil, pure, highly and severely refined]</b><br>TWA 8 hours: 5 mg/m <sup>3</sup> . Form: Inhalable fraction. |
| distillates (petroleum), solvent-dewaxed heavy paraffinic | <b>Workplace Safety and Health Act (Singapore, 2/2006) [Oil Mist, mineral]</b><br>PEL (long term) 8 hours: 5 mg/m <sup>3</sup> . Form: Mist.<br>PEL (short term) 15 minutes: 10 mg/m <sup>3</sup> . Form: Mist.<br><b>ACGIH TLV (United States, 1/2024) [Mineral Oil, pure, highly and severely refined]</b><br>TWA 8 hours: 5 mg/m <sup>3</sup> . Form: Inhalable fraction. |
| carbonic acid, calcium salt (1:1)                         | <b>Workplace Safety and Health Act (Singapore, 2/2006) [Calcium carbonate]</b><br>PEL (long term) 8 hours: 10 mg/m <sup>3</sup> .                                                                                                                                                                                                                                            |

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

## Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties and safety characteristics

**Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Colour** : Brown
- Odour** : Characteristic
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : >315.56°C (>600°F)
- Flash point** : Open cup: >225°C (>437°F) [ASTM D-92]
- Evaporation rate** : Not available.
- Flammability** : Ignitable
- Lower and upper explosion limit/flammability limit** : Lower: 0.9%  
Upper: 7%
- Vapour pressure** : <0.1 mm Hg [20 °C]
- Relative vapour density** : >2 [Air = 1]
- Relative density** : 0.936
- Solubility in water** : Negligible
- Partition coefficient: n-octanol/water** : >3.5
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : 229 cSt [40 °C]  
20.6 cSt [100 °C]

### Particle characteristics

- Median particle size** : Not applicable.
- Pour point** : -3°C
- DMSO Extract (mineral oil only), IP-346** : <3 % by weight

## Section 10. Stability and reactivity

|                                           |                                                                                                        |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.           |
| <b>Chemical stability</b>                 | : The product is stable.                                                                               |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| <b>Conditions to avoid</b>                | : High energy sources of ignition. Excessive heat.                                                     |
| <b>Incompatible materials</b>             | : Strong oxidisers                                                                                     |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

##### **Conclusion/Summary**

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| <b>Inhalation</b> | : Minimally Toxic. No end point data for material. Based on assessment of the components. |
| <b>Dermal</b>     | : Minimally Toxic. No end point data for material. Based on assessment of the components. |
| <b>Oral</b>       | : Minimally Toxic. No end point data for material. Based on assessment of the components. |

#### Irritation/Corrosion

##### **Conclusion/Summary**

|                    |                                                                                                                                 |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin</b>        | : Negligible irritation to skin at ambient temperatures. No end point data for material. Based on assessment of the components. |
| <b>Eyes</b>        | : May cause mild, short-lasting discomfort to eyes. No end point data for material. Based on assessment of the components.      |
| <b>Respiratory</b> | : Negligible hazard at ambient/normal handling temperatures. No end point data for material.                                    |

#### Respiratory or skin sensitization

##### **Conclusion/Summary**

|                    |                                                                                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Skin</b>        | : Not expected to be a skin sensitizer. No end point data for material. Based on assessment of the components. |
| <b>Respiratory</b> | : Not expected to be a respiratory sensitizer. No end point data for material.                                 |

#### Mutagenicity

##### **Conclusion/Summary**

: Not expected to be a germ cell mutagen. No end point data for material. Based on assessment of the components.

#### Carcinogenicity

##### **Conclusion/Summary**

: Not expected to cause cancer. No end point data for material. Based on assessment of the components.

#### Reproductive toxicity

##### **Conclusion/Summary**

: Not expected to be a reproductive toxicant. No end point data for material. Based on assessment of the components.

#### Specific target organ toxicity (single exposure)

##### **Conclusion/Summary**

: Not expected to cause organ damage from a single exposure. No end point data for material.

#### Specific target organ toxicity (repeated exposure)

## Section 11. Toxicological information

| Product/ingredient name | Category        | Target organs |
|-------------------------|-----------------|---------------|
| XN006143E               | Not applicable. | -             |

**Conclusion/Summary** : Not expected to cause organ damage from prolonged or repeated exposure. No end point data for material. Based on assessment of the components.

### Aspiration hazard

**Conclusion/Summary** : Not expected to be an aspiration hazard. Based on physico-chemical properties of the material. Data available.

### Other information

**Contains** : Tetrapropenyl phenol (TPP). TPP was tested in a rat oral gavage one-generation reproductive toxicity study and a rat dietary two-generation reproductive toxicity study. Results from the one-generation study included reduced ovary weights and changes in male reproductive accessory organs. Results from the two-generation study included prolonged estrous cyclicity, reduced ovary weights, accelerated sexual maturation, decreased mean live litter size, decreased fertility rates, hypospermia, and reduced weights of male reproductive accessory organs. A classification threshold for reproductive effects of 1.5 wt% TPP was derived by the supplier based on the NOAEL (15 mg/kg/day) from the rat dietary two-generation study and was confirmed in supporting studies with other substances containing TPP as an impurity. ETHYLENE GLYCOL (EG): Repeated high oral exposure has caused kidney damage, neurological effects, degeneration of the liver and changes in blood chemistry and circulating blood cells in laboratory animals. Repeated overexposure has the potential to cause similar toxic effects in humans. EG causes developmental and reproductive effects at high dose levels in laboratory animals. The relevance of these findings to humans is uncertain. Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitising in test animals. Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (substituted DPA): Results from a supplier's extended one-generation dietary study with 10-week pre-mating administration of substituted DPA included decreased body weight and body weight gains in parental females during gestation and lactation, decreased number of implantation sites and decreased mean litter size. A representative formulation containing substituted DPA was tested in a rat oral gavage reproductive/developmental toxicity screening study (OECD TG 421) with a 10-week pre-mating administration period. Study results included decreased body weight and body weight gain starting in pre-mating and continuing through gestation and lactation in parental females, decreased number of implantation sites and decreasing trend in litter size. A 5 wt% classification threshold for the reproductive effects of substituted DPA was derived based on the NOAEL (50 mg/kg/day) and is consistent with the NOAEL in the supplier's study.

## Section 12. Ecological information

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

### Toxicity

#### Conclusion/Summary

**Acute toxicity** : Not expected to be harmful to aquatic organisms.  
**Chronic toxicity** : Not expected to demonstrate chronic toxicity to aquatic organisms

### Persistence and degradability

**Biodegradability** : Base oil component -- Expected to be inherently biodegradable

### Bioaccumulative potential



## Section 12. Ecological information

**Conclusion/Summary** : Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

### Mobility in soil

**Mobility** : Base oil component -- Expected to partition to sediment and wastewater solids. Low solubility and floats and is expected to migrate from water to the land.

### Other ecological information

**Other adverse effects** : No known significant effects or critical hazards.

**Nota** : One or more additive components of this material contains a branched alkylphenol impurity that is highly toxic to aquatic organisms. The components containing the impurity have been tested by the additive supplier and found to be no more than minimally toxic to aquatic organisms.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

## Section 14. Transport information

|                            | ADR            | IMDG           | IATA           |
|----------------------------|----------------|----------------|----------------|
| UN number                  | Not regulated. | Not regulated. | Not regulated. |
| UN proper shipping name    | -              | -              | -              |
| Transport hazard class(es) | -              | -              | -              |
|                            |                |                |                |
| Packing group              | -              | -              | -              |
| Environmental hazards      | No.            | No.            | No.            |

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.



## Section 14. Transport information

**Transport in bulk according to IMO instruments** : Not applicable.

## Section 15. Regulatory information

Material is not hazardous as defined by Specification for hazard communication for hazardous chemicals and dangerous goods (Singapore Standard SS586) Part 2:2014 - Globally harmonised system of classification and labelling of chemicals - Singapore's adaptations.

[Singapore – hazardous chemical under government control, Second Schedule of the Environmental Protection And Management Act S 436, National Environment Agency](#)

None.

### Inventory list

|                                                           |                                          |
|-----------------------------------------------------------|------------------------------------------|
| <b>Australia inventory (AIC)</b>                          | : All components are listed or exempted. |
| <b>Canada inventory (DSL-NDSL)</b>                        | : All components are listed or exempted. |
| <b>China inventory (IECSC)</b>                            | : Not determined.                        |
| <b>Japan inventory (CSCL)</b>                             | : All components are listed or exempted. |
| <b>Japan inventory (Industrial Safety and Health Act)</b> | : All components are listed or exempted. |
| <b>New Zealand Inventory of Chemicals (NZIoC)</b>         | : All components are listed or exempted. |
| <b>Philippines inventory (PICCS)</b>                      | : All components are listed or exempted. |
| <b>Korea inventory (KECI)</b>                             | : All components are listed or exempted. |
| <b>Taiwan Chemical Substances Inventory (TCSI)</b>        | : All components are listed or exempted. |
| <b>United States inventory (TSCA 8b)</b>                  | : All components are active or exempted. |

## Section 16. Other information

### History

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date of issue/Date of revision</b> | : 7 August 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Date of previous issue</b>         | : 25 January 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Version</b>                        | : 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Key to abbreviations</b>           | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>N/A = Not available<br>SGG = Segregation Group<br>UN = United Nations |

**References** : Not available.

Indicates information that has changed from previously issued version.

**Product code** : 2015403030Z5\_1140465

**Notice to reader**

## Section 16. Other information

"The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. The term, ""ExxonMobil"" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest."