

# Safety Data Sheet

## Shell Gadinia 40

Version 1.1

Revision Date 18.10.2016

Print Date 19.10.2016

### 1. IDENTIFICATION OF THE HAZARDOUS CHEMICALS AND OF THE SUPPLIER

Product name : Shell Gadinia 40

Product code : 001A0218

#### Manufacturer or supplier's details

Supplier : Shell Malaysia Trading Sdn Bhd  
(6087-M)  
Menara Shell  
No. 211 Jalan Tun Sambanthan  
50470 Kuala Lumpur  
Malaysia

Telephone : (+60) 3 2385 2888

Telefax :

Emergency telephone number : 1 800 88 3899

**Email Contact for Safety Data Sheet** : If you have any enquiries about the content of this SDS please email [lubricantSDS@shell.com](mailto:lubricantSDS@shell.com)

#### Recommended use of the chemical and restrictions on use

Recommended use : Engine oil.

### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Not a dangerous substance or mixture according to the Globally Harmonised System (GHS).

#### GHS label elements

Hazard pictograms : No Hazard Symbol required

Signal word : No signal word

Hazard statements : PHYSICAL HAZARDS:  
Not classified as a physical hazard under GHS criteria.  
HEALTH HAZARDS:  
Not classified as a health hazard under GHS criteria.  
ENVIRONMENTAL HAZARDS:  
Not classified as an environmental hazard under GHS criteria.

Precautionary statements : **Prevention:**  
No precautionary phrases.

**Response:**  
No precautionary phrases.

**Storage:**  
No precautionary phrases.

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### Disposal:

No precautionary phrases.

### Other hazards which do not result in classification

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Used oil may contain harmful impurities. Not classified as flammable but will burn.

### 3. COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE HAZARDOUS CHEMICAL

- Chemical nature : Highly refined mineral oils and additives.  
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.
- : \* contains one or more of the following CAS-numbers: 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69-9.

### Hazardous components

| Chemical name  | CAS-No.      | Classification   | Concentration [%] |
|--|--------------|------------------|-------------------|
| Interchangeable low viscosity base oil (<20,5 cSt @40°C) * | Not Assigned | Asp. Tox.1; H304 | 0 - 90            |

For explanation of abbreviations see section 16.

### 4. FIRST-AID MEASURES

- General advice : Not expected to be a health hazard when used under normal conditions.
- If inhaled : No treatment necessary under normal conditions of use.  
If symptoms persist, obtain medical advice.
- In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.  
If persistent irritation occurs, obtain medical attention.
- In case of eye contact : Flush eye with copious quantities of water.  
If persistent irritation occurs, obtain medical attention.
- If swallowed : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
- Most important symptoms : Oil acne/folliculitis signs and symptoms may include formation

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| and effects, both acute and delayed | of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.  |                       |
| Protection of first-aiders          | : When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings. |                       |
| Notes to physician                  | : Treat symptomatically.  |                       |

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### 5. FIRE-FIGHTING MEASURES

|   |  |
|---|--|
| Suitable extinguishing media                  | : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.   |
| Unsuitable extinguishing media                | : Do not use water in a jet.   |
| Specific hazards during firefighting          | : Hazardous combustion products may include:<br>A complex mixture of airborne solid and liquid particulates and gases (smoke).<br>Carbon monoxide may be evolved if incomplete combustion occurs.<br>Unidentified organic and inorganic compounds.   |
| Specific extinguishing methods                | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  |
| Special protective equipment for firefighters | : Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469). |
| Hazchem Code                                  | : NONE/TIADA   |

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### 6. ACCIDENTAL RELEASE MEASURES

|   |  |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Avoid contact with skin and eyes.  |
| Environmental precautions   | : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.<br><br>Local authorities should be advised if significant spillages cannot be contained. |
| Methods and materials for containment and cleaning up               | : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth  |

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or other containment material.  
Reclaim liquid directly or in an absorbent.  
Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Additional advice : For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.  
For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

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### 7. HANDLING AND STORAGE

#### Handling

General Precautions : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.  
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Advice on safe handling : Avoid prolonged or repeated contact with skin.  
Avoid inhaling vapour and/or mists.  
When handling product in drums, safety footwear should be worn and proper handling equipment should be used.  
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Avoidance of contact : Strong oxidising agents.

Product Transfer : This material has the potential to be a static accumulator.  
Proper grounding and bonding procedures should be used during all bulk transfer operations.

#### Storage

Other data : Keep container tightly closed and in a cool, well-ventilated place.  
Use properly labeled and closable containers.

Store at ambient temperature.

Packaging material : Suitable material: For containers or container linings, use mild steel or high density polyethylene.  
Unsuitable material: PVC.

Container Advice : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

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### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Components with workplace control parameters

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| Components        | CAS-No.      | Value type<br>(Form of exposure) | Control parameters / Permissible concentration | Basis  |
|-------------------|--------------|----------------------------------|--|--|
| Oil mist, mineral | Not Assigned | TWA (Mist)                       | 5 mg/m <sup>3</sup>                            | MY PEL   |
| Oil mist, mineral | Not Assigned | TWA<br>((inhalable fraction))    | 5 mg/m <sup>3</sup>                            | US. ACGIH<br>Threshold<br>Limit Values   |
| Oil mist, mineral | Not Assigned | TWA (Mist)                       | 5 mg/m <sup>3</sup>                            | Malaysia.<br>Occupational<br>Safety and<br>Health (Use<br>and<br>Standards of<br>Exposure of<br>Chemicals<br>Hazardous to<br>Health)<br>Regulations<br>2000. |
| Oil mist, mineral | Not Assigned | TWA (Mist)                       | 5 mg/m <sup>3</sup>                            | OSHA Z-1   |
|                   | Not Assigned | TWA<br>(Inhalable<br>fraction)   | 5 mg/m <sup>3</sup>                            | ACGIH  |

### Biological occupational exposure limits

No biological limit allocated.

### Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods  
<http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods  
<http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances  
<http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany  
<http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

### Engineering measures

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:  
Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

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### General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

### Personal protective equipment

#### Protective measures

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Respiratory protection : No respiratory protection is ordinarily required under normal conditions of use.  
In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

Hand protection  
Remarks : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

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For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

- Eye protection : If material is handled such that it could be splashed into eyes, protective eyewear is recommended.
- Skin and body protection : Skin protection is not ordinarily required beyond standard work clothes.  
It is good practice to wear chemical resistant gloves.
- Thermal hazards : Not applicable

### Environmental exposure controls

- General advice : Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water.  
Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : amber
- Odour : Slight hydrocarbon
- Odour Threshold : Data not available
- pH : Not applicable
- pour point : -18 °C / -0.40 °F Method: ASTM D97
- Initial boiling point and boiling range : > 280 °C / 536 °F estimated value(s)
- Flash point : >= 225 °C / >= 437 °F  
Method: ASTM D93 (PMCC)

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|  |  |
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| Evaporation rate                       | : Data not available   |
| Flammability (solid, gas)              | : Data not available   |
| Upper explosion limit                  | : Typical 10 %(V)  |
| Lower explosion limit                  | : Typical 1 %(V)   |
| Vapour pressure                        | : < 0.5 Pa (20 °C / 68 °F)<br>estimated value(s)                   |
| Relative vapour density                | : > 1 estimated value(s)   |
| Relative density                       | : 0.900 (15 °C / 59 °F)  |
| Density                                | : 900 kg/m <sup>3</sup> (15.0 °C / 59.0 °F)<br>Method: ASTM D4052  |
| Solubility(ies)                        |  |
| Water solubility                       | : negligible   |
| Solubility in other solvents           | : Data not available   |
| Partition coefficient: n-octanol/water | : Pow: > 6 (based on information on similar products)              |
| Auto-ignition temperature              | : > 320 °C / 608 °F  |
| Viscosity                              |  |
| Viscosity, dynamic                     | : Data not available   |
| Viscosity, kinematic                   | : 139 mm <sup>2</sup> /s (40.0 °C / 104.0 °F)<br>Method: ASTM D445 |
|  | 14.4 mm <sup>2</sup> /s (100 °C / 212 °F)<br>Method: ASTM D445     |
| Explosive properties                   | : Not classified   |
| Oxidizing properties                   | : Data not available   |
| Conductivity                           | : This material is not expected to be a static accumulator.        |
| Decomposition temperature              | : Data not available   |

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### 10. STABILITY AND REACTIVITY

|            |  |
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| Reactivity | : The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph. |
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Remarks: Not expected to be a skin sensitiser.

### Germ cell mutagenicity

**Product:**

: Remarks: Not considered a mutagenic hazard.

### Carcinogenicity

**Product:**

Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies., Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

| Material                   | GHS/CLP Carcinogenicity Classification |
|----------------------------|--|
| Highly refined mineral oil | No carcinogenicity classification.     |

### Reproductive toxicity

**Product:**

: Remarks: Not expected to impair fertility., Not expected to be a developmental toxicant.

### STOT - single exposure

**Product:**

Remarks: Not expected to be a hazard.

### STOT - repeated exposure

**Product:**

Remarks: Not expected to be a hazard.

### Aspiration toxicity

**Product:**

Not considered an aspiration hazard.

### Further information

**Product:**

Remarks: Used oils may contain harmful impurities that have accumulated during use. The

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concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Continuous contact with used engine oils has caused skin cancer in animal tests.

Remarks: Slightly irritating to respiratory system.

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### 12. ECOLOGICAL INFORMATION

Basis for assessment : Ecotoxicological data have not been determined specifically for this product.  
Information given is based on a knowledge of the components and the ecotoxicology of similar products.  
Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).(LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).

#### Ecotoxicity

**Product:**

Toxicity to fish (Acute toxicity) : Remarks: Expected to be practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to crustacean (Acute toxicity) : Remarks: Expected to be practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic plants (Acute toxicity) : Remarks: Expected to be practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to crustacean (Chronic toxicity) : Remarks: Data not available

Toxicity to microorganisms (Acute toxicity) : Remarks: Data not available

#### Persistence and degradability

**Product:**

Biodegradability : Remarks: Expected to be not readily biodegradable., Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

#### Bioaccumulative potential

**Product:**

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Bioaccumulation : Remarks: Contains components with the potential to bioaccumulate.

Partition coefficient: n-octanol/water : Pow: > 6Remarks: (based on information on similar products)

### Mobility in soil

#### Product:

Mobility : Remarks: Liquid under most environmental conditions., If it enters soil, it will adsorb to soil particles and will not be mobile.  
Remarks: Floats on water.

### Other adverse effects

no data available

#### Product:

Additional ecological information : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities., Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.  
Poorly soluble mixture., May cause physical fouling of aquatic organisms.  
Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

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## 13 DISPOSAL INFORMATION

### Disposal methods

Waste from residues : Recover or recycle if possible.  
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.  
Do not dispose into the environment, in drains or in water courses

Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.  
Waste, spills or used product is dangerous waste.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.  
Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Local legislation  
Remarks : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

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### 14. TRANSPORTATION INFORMATION

#### National Regulations

Hazchem Code : NONE/TIADA

#### International Regulations

##### ADR

Not regulated as a dangerous good

##### IATA-DGR

Not regulated as a dangerous good

##### IMDG-Code

Not regulated as a dangerous good

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

Pollution category : Not applicable  
Ship type : Not applicable  
Product name : Not applicable  
Special precautions : Not applicable

#### Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

**Additional Information** : MARPOL Annex 1 rules apply for bulk shipments by sea.

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### 15. REGULATORY INFORMATION

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

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.

OSHA 1994 and relevant regulations.

Factories and Machinery Act 1967 and relevant regulations.

Petroleum (Safety Measures) Act 1984.

Environmental Quality Act 1974 and regulation.

Motor Vehicles (Construction and Use) (Vehicles Carrying Petroleum Products) Rules, 1965-L.N.405/65 under Road Transport Act 1987.

Motor Vehicles (Construction, Equipment and Use) (Use Of Liquefied Petroleum Gas Fuel System in Motor Vehicles) Rules 1982 – P.U. (A) 392/82 under Road Transport Act, 1987.

#### Other international regulations

#### The components of this product are reported in the following inventories:

EINECS : All components listed or polymer exempt.  
TSCA : All components listed.

