

# SAFETY DATA SHEET

## AeroShell Fluid 31

Version 1.1

Revision Date 2024.07.25

Print Date 2024.11.04

### 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product name : AeroShell Fluid 31

Product code : 001A0048

#### Manufacturer or supplier's details

Supplier's company name, address and phone number : Shell Lubricants Japan K.K.  
Pacific Century Place Marunouchi 12F  
1-11-1, Marunouchi  
Chiyoda-ku  
Tokyo 100-6212  
Japan

Telephone : (+81) 03-3218-1780

Telefax : (+81) 03-3218-1781

Emergency telephone number : [Important notice for customer support]  
If you need support for product, please contact our customer service centre.  
Lub Customer Service Centre (Lub CSC)  
Tel. 0120-064-315 / Fax. 0120-264-315 (JP Toll free)  
E-mail. Inquiries-Lubes-JP@shell.com  
(Available for Japanese office hours only.)

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

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

Recommended use : Synthetic hydrocarbon hydraulic fluid for aircraft., For further details consult the AeroShell Book on [www.shell.com/aviation](http://www.shell.com/aviation).

Restrictions on use : This product must be used, handled, and applied in accordance with the requirements of the equipment manufacturer's manuals, bulletins and other documentation. This substance may not be used for any purpose other than recommended without expert advice

### 2. HAZARDS IDENTIFICATION

#### GHS classification of chemical product

Aspiration hazard : Category 1

Short-term (acute) aquatic hazard : Category 3

#### GHS label elements

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Hazard pictograms

:



Signal word

: Danger

Hazard statements

: PHYSICAL HAZARDS:  
Not classified as a physical hazard under GHS criteria.  
HEALTH HAZARDS:  
H304 May be fatal if swallowed and enters airways.  
ENVIRONMENTAL HAZARDS:  
H402 Harmful to aquatic life.

Precautionary statements

:

**Prevention:**

P273 Avoid release to the environment.

**Response:**

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331 Do NOT induce vomiting.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

Contains low viscosity polyalphaolefins.

**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. High-pressure injection under the skin may cause serious damage including local necrosis. Not classified as flammable but will burn.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

Chemical nature

: Blend of polyolefins, synthetic esters and additives.

**Hazardous components**

Substance name	CAS-No.	Classification	Concentration (% w/w)
Polyolefin	68037-01-4	Asp. Tox.1; H304	65 - 75
Alkylphenol	118-82-1	Aquatic	1 - 3

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		Chronic4; H413	
Triphenylphosphate butylated (25% or more TPP)	68937-40-6	Aquatic Acute1; H400 Aquatic Chronic2; H411	0 - 0.99
Triazole derivative	91273-04-0	Skin Corr.1B; H314 Skin Sens.1A; H317 Aquatic Chronic1; H410 Aquatic Acute2; H401	0 - 0.099

For explanation of abbreviations see section 16.

### 4. FIRST-AID MEASURES

- 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.
- When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop. Obtain medical attention even in the absence of apparent wounds.
- In case of eye contact : Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. If persistent irritation occurs, obtain medical attention.
- If swallowed : Call emergency number for your location / facility. If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.
- Most important symptoms and effects, both acute and delayed : If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Defatting dermatitis signs and symptoms may include a

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burning sensation and/or a dried/cracked appearance.  
Ingestion may result in nausea, vomiting and/or diarrhoea.

Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection.

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 : Potential for chemical pneumonitis.  
Call a doctor or poison control center for guidance.

High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function.  
Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

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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:  
A complex mixture of airborne solid and liquid particulates and gases (smoke).  
Carbon monoxide may be evolved if incomplete combustion occurs.  
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).

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### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid contact with skin and eyes.
- Environmental precautions : 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 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 Section 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

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### 7. HANDLING AND STORAGE

#### Handling

- Technical measures : 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.
- Facial protective equipment : If material is handled such that it could be splashed into eyes, protective eyewear is recommended.
- Describe contact avoidance, etc : Strong oxidising agents.

#### Storage

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

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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

#### Threshold limit value and permissible exposure limits for each component in the work environment

#### 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>

労働者の健康障害を防止するため化学物質の濃度基準値とその適用方法などを決めました ([mhlw.go.jp](http://mhlw.go.jp))

**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.

Do not ingest. If swallowed, then seek immediate medical assistance

### 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 and particles [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

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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.

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 and face 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 : Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.  
Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.  
Information on accidental release measures are to be found in section 6.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : Liquid at room temperature.
- Colour : red
- Odour : Slight hydrocarbon
- Odour Threshold : Data not available
- pH : Not applicable  
substance/mixture is non-soluble (in water)
- pour point : <= -55 °C / <= -67 °F  
Method: ASTM D97
- Melting / freezing point : Data not available



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Boiling point	:	Data not available
Flash point	:	>= 205 °C / 401 °F Method: ASTM D92 (COC)
Evaporation rate	:	Data not available
Flammability		
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	Not classified as flammable but will burn.
Lower explosion limit and upper explosion limit / flammability limit		
Upper explosion limit	:	Typical 10 %(V)
Lower explosion limit	:	Typical 1 %(V)
Vapour pressure	:	< 0.5 Pa (20 °C / 68 °F) estimated value(s)
Relative vapour density	:	> 5
Density and / or relative density		
Relative density	:	0.850 (15 °C / 59 °F)
Density	:	850 kg/m <sup>3</sup> (15.0 °C / 59.0 °F) Method: Unspecified
Solubility(ies)		
Water solubility	:	negligible
Solubility in other solvents	:	Data not available
Partition coefficient: n-octanol/water	:	log Pow: > 6 (based on information on similar products)
Auto-ignition point	:	> 320 °C / 608 °F
Decomposition temperature	:	Data not available
Viscosity		
Viscosity (Dynamic)	:	Data not available
Viscosity, kinematic	:	1.06 mm <sup>2</sup> /s (205 °C / 401 °F) Method: ASTM D445
		3.53 mm <sup>2</sup> /s (100 °C / 212 °F) Method: ASTM D445

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14.3 mm<sup>2</sup>/s (40.0 °C / 104.0 °F)  
Method: ASTM D445

2059 mm<sup>2</sup>/s (-40 °C / -40 °F)  
Method: ASTM D445

Particle characteristics	
Particle size	: Data not available
Explosive properties	: Classification Code: Not classified.
Oxidizing properties	: Data not available
Conductivity	: This material is not expected to be a static accumulator.

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### 10. STABILITY AND REACTIVITY

Reactivity	: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	: Stable.
Possibility of hazardous reactions	: Reacts with strong oxidising agents.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Strong oxidising agents.
Hazardous decomposition products	: No decomposition if stored and applied as directed.

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### 11. TOXICOLOGICAL INFORMATION

Basis for assessment	: Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).
Information on likely routes of exposure	: Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

#### Acute toxicity

**Product:**

Acute oral toxicity	: LD50 rat: > 5,000 mg/kg
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Remarks: Low toxicity

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

Remarks: Aspiration into the lungs may cause chemical pneumonitis which can be fatal.

Acute inhalation toxicity : Remarks: Based on available data, the classification criteria are not met.

Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg  
Remarks: Low toxicity  
Based on available data, the classification criteria are not met.

### Skin corrosion/irritation

**Product:**

Remarks: Slightly irritating to skin., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis., Based on available data, the classification criteria are not met.

### Serious eye damage/eye irritation

**Product:**

Remarks: Slightly irritating to the eye., Based on available data, the classification criteria are not met.

### Respiratory or skin sensitisation

**Product:**

Remarks: Not a skin sensitiser.  
Based on available data, the classification criteria are not met.

**Components:**

**Triazole derivative:**

Remarks: May cause an allergic skin reaction in sensitive individuals.

### Germ cell mutagenicity

**Product:**

: Remarks: Non mutagenic, Based on available data, the classification criteria are not met.

### Carcinogenicity

**Product:**

Remarks: Not a carcinogen., Based on available data, the classification criteria are not met.

Material	GHS/CLP Carcinogenicity Classification
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Alkylphenol	No carcinogenicity classification.
Triphenyl phosphate	No carcinogenicity classification.

### Reproductive toxicity

#### Product:

:  
Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are not met.

### STOT - single exposure

#### Product:

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

### STOT - repeated exposure

#### Product:

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

### Aspiration toxicity

#### Product:

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

### Further information

#### Product:

Remarks: Used oils may contain harmful impurities that have accumulated during use. The 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: High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

Remarks: High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

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).

#### Ecotoxicity

**Product:**

Toxicity to fish (Acute toxicity) : Remarks: LL/EL/IL50 >10 <= 100 mg/l Harmful

Toxicity to crustacean (Acute toxicity) : Remarks: LL/EL/IL50 >10 <= 100 mg/l Harmful

Toxicity to algae/aquatic plants (Acute toxicity) : Remarks: LL/EL/IL50 >10 <= 100 mg/l Harmful

Toxicity to fish (Chronic toxicity) : Remarks: Based on available data, the classification criteria are not met.

Toxicity to crustacean (Chronic toxicity) : Remarks: Based on available data, the classification criteria are not met.

Toxicity to microorganisms (Acute toxicity) : Remarks: LL/EL/IL50 >10 <= 100 mg/l Harmful

#### Persistence and degradability

**Product:**

Biodegradability : Remarks: Not readily biodegradable., Major constituents are inherently biodegradable, but contains components that may persist in the environment., Persistent per IMO criteria., International Oil Pollution Compensation (IOPC) Fund definition: "A non-persistent oil is oil, which, at the time of shipment, consists of hydrocarbon fractions, (a) at least 50% of which, by volume, distills at a temperature of 340°C (645°F) and (b) at least 95% of which, by volume, distills at a temperature of 370°C (700°F) when tested by the ASTM Method D-86/78 or any subsequent revision thereof."

#### Bioaccumulation

**Product:**

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

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Partition coefficient: n-octanol/water

: log Pow: > 6  
Remarks: (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

: Does not have ozone depletion potential, photochemical ozone creation potential or global warming potential., Product is a mixture of non-volatile components, which will not be released to air in any significant quantities under normal conditions of use.  
Poorly soluble mixture., Causes physical fouling of aquatic organisms.

### Hazardous to the ozone layer

Not applicable

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## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Chemicals (residual waste)

: 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.

Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.

MARPOL - see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides technical aspects at controlling pollutions from ships.

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Contaminated containers and 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. TRANSPORT INFORMATION

#### Regulatory information when there are domestic regulations

Refer to section 15 for specific national regulation.

#### 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

#### Maritime transport in bulk according to IMO instruments

MARPOL Annex 1 rules apply for bulk shipments by sea.

#### Special precautions for user

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

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### 15. REGULATORY INFORMATION

#### Related Regulations

**Fire Service Law**

Group 4, Type 4 petroleum, (6000 litre), Hazardous rank III

**Chemical Substance Control Law**

Monitoring Chemical Substance

Chemical name	Number
2,2',6,6'-Tetra-tert-butyl-4,4'-methylenediphenol	28

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### Industrial Safety and Health Law

#### Harmful Substances Prohibited from Manufacture

Not applicable

#### Harmful Substances Required Permission for Manufacture

Not applicable

#### Substances Prevented From Impairment of Health

Not applicable

#### Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

#### Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

#### Substances Subject to be Notified Names

Not applicable

#### Substances Subject to be Indicated Names

Not applicable

#### Ordinance on Prevention of Hazards Due to Specified Chemical Substances

Not applicable

#### Ordinance on Prevention of Organic Solvent Poisoning

Not applicable

#### Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)

Not applicable

#### Poisonous and Deleterious Substances Control Law

Not applicable

#### Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Not applicable

#### Vessel Safety Law

Not applicable

#### Aviation Law

Not applicable

#### Marine Pollution and Sea Disaster Prevention etc Law

Not classified as marine pollutant

#### Water Pollution Control Law

Oil emissions regulations (Law Art. 2-5, Enforcement Order Art. 3-4)

#### Waste Disposal and Public Cleansing Law

Industrial waste

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

TSCA : All components listed.



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ENCS : All components listed.

### 16. OTHER INFORMATION

#### Full text of H-Statements

H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

#### Full text of other abbreviations

Aquatic Acute	Short-term (acute) aquatic hazard
Aquatic Chronic	Long-term (chronic) aquatic hazard
Asp. Tox.	Aspiration hazard
Skin Corr.	Skin corrosion
Skin Sens.	Skin sensitisation

#### Abbreviations and Acronyms

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations

# SAFETY DATA SHEET

## AeroShell Fluid 31

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Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

### Further information

Training advice : Provide adequate information, instruction and training for operators.

Other information : A vertical bar (|) in the left margin indicates an amendment from the previous version.

Sources of key data used to compile the Safety Data Sheet : The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID data base, EC 1272 regulation, etc).

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

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