

Safety Data Sheet

According to Occupational Health and Safety (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Malaysia Regulation 2013



TERGITOL™ 26-L-9 Surfactant

Version 1.1

Release Date: 08.06.2018

SECTION 1: Identification of the hazardous chemical and of the supplier

Product identifier

Product name : TERGITOL™ 26-L-9 Surfactant

Recommended use of the chemical and restrictions on use

Recommended use : Detergent, emulsifying agent, industrial and household cleaner
Restrictions on use : No restriction of use

Manufacturer or supplier's details

Headquarters

Company : PETRONAS Chemicals Group Berhad
Address : Tower 2, PETRONAS Twin Towers,
Kuala Lumpur City Centre,
50088 Kuala Lumpur
Malaysia

Plant Site

Company : PETRONAS Chemicals Derivatives Sdn Bhd
Address : Administration Complex,
Kerteh Industrial Area,
KM 106 Jalan Kuala Terengganu - Kuantan,
24300 Kerteh, Kemaman,
Terengganu, Malaysia

Emergency telephone : (+609) 830 7555
number : 999 (Bomba)
National Poison Centre:
+604-6570099 (Mon-Fri : 8.10 am - 5.10 pm)
+6012-4309499 (Mon-Fri : 5.10 pm - 10.10 pm) & (Sat, Sun &
Public holiday : 8.10 am - 5.10 pm)

SECTION 2: Hazards identification

Classification of the hazardous chemical

Hazardous to the aquatic : Category 3
environment- chronic hazard

Label elements

Hazard pictograms : None
Signal word : None
Hazard statements : H412 Harmful to aquatic life with long lasting effects.
Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
Disposal:
P501 Dispose of contents/ container to an approved waste
disposal plant.

Other hazards which do not result in classification

No information available.

SECTION 3: Composition and information of the ingredients of the hazardous chemical

™ TRADEMARK OF THE DOW CHEMICAL COMPANY ("DOW") OR AN AFFILIATED COMPANY OF DOW

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Substance / Mixture : UVCB
Chemical nature : Primary alcohol ethoxylate

Hazardous components

Chemical name	CAS-No.	Concentration (%)
Alcohols, C12-14, ethoxylated	68439-50-9	>= 99 -<= 100

SECTION 4: First aid measures

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a medical doctor.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
Immediately flush eye(s) with plenty of water.

If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Do NOT give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.
If symptoms persist, call a medical doctor.
Clean mouth with water and drink afterwards plenty of water.

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
Consult a medical doctor.

Most important symptoms and effects, both acute and delayed : No information available.

SECTION 5: Firefighting measures**Extinguishing media**

Suitable extinguishing media : Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media : High volume water jet.

Physicochemical hazards arising from the chemical

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment and precautions for fire-fighters

Special protective equipment for firefighters : Wear positive-pressure self-contained breathing apparatus (SBCA) and protective fire fighting clothing (includes fire

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Specific extinguishing methods	: fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed off in accordance with local regulations.
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SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment.
Environmental precautions	: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

SECTION 7: Handling and storage

Handling

Precautions for safe handling

Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
Advice on safe handling	: Do not breathe vapours/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Do not swallow. Avoid contact with skin and eyes.

Storage

Conditions for safe storage, including any incompatibilities

Conditions for safe storage	: Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
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SECTION 8: Exposure controls and personal protection

Control parameters

Contains no substances with occupational exposure limit values.

Individual protection measures, such as personal protective equipment

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Eye/face protection	: Eye wash bottle with pure water. Tightly fitting safety goggles. Wear face-shield and protective suit for abnormal processing problems.
Skin protection	: Impervious clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hand protection	
Remarks	: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Hygiene measures	: Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

SECTION 9: Physical and chemical properties

Appearance	: Liquid
Colour	: Colourless to slightly hazy liquid
Odour	: Mild
Odour Threshold	: No data available
pH	: 6.0
Melting point/freezing point	: 17 °C
Boiling point/boiling range	: > 275 °C
Flash point	: > 204 °C Method: ASTM D 93, Pensky-Martens closed cup
Evaporation rate	: No data available
Flammability (liquids)	: No data available
Self-ignition	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapour pressure	: < 0.013 hPa (20 °C)
Relative vapour density	: No data available
Relative density	: No data available
Density	: No data available
Solubility(ies)	
Water solubility	: Soluble
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available

SECTION 10: Stability and reactivity

Reactivity	: Hazardous polymerisation does not occur.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Fumes, smoke, carbon monoxide Decomposition products depend upon temperature, air supply

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and the presence of other materials.

SECTION 11: Toxicological information**Acute toxicity****Components:****Alcohols, C12-14, ethoxylated:**

Acute oral toxicity : LD50 (Rat, Male and female): > 2,000 mg/kg
Acute inhalation toxicity : LC50 (Rat, Male and female): > 1,600 mg/m³
Exposure time: 4 h
Test atmosphere: vapour
Acute dermal toxicity : LD50 (Rat, Male and female): > 2,000 mg/kg

Skin corrosion/irritation**Components:****Alcohols, C12-14, ethoxylated:**

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation**Components:****Alcohols, C12-14, ethoxylated:**

Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitisation**Components:****Alcohols, C12-14, ethoxylated:**

Exposure routes : Skin contact
Species : Guinea pig
Result : Not sensitising
Exposure routes : Inhalation
Remarks : No data available

Germ cell mutagenicity**Components:****Alcohols, C12-14, ethoxylated:**

Germ cell mutagenicity - : Not mutagenic in vivo and in vitro
Assessment

Carcinogenicity**Components:****Alcohols, C12-14, ethoxylated:**

Carcinogenicity - : No data available
Assessment

Reproductive toxicity**Components:****Alcohols, C12-14, ethoxylated:**

Reproductive toxicity - : No toxicity to reproduction
Assessment

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STOT - single exposure**Components:****Alcohols, C12-14, ethoxylated:**

Remarks : No data available

STOT - repeated exposure**Components:****Alcohols, C12-14, ethoxylated:**Remarks : NOAEL (Rat, 13 week oral) \geq 500 mg/kg bw/d**Aspiration toxicity****Components:****Alcohols, C12-14, ethoxylated:**

Statement on Aspiration Tox. : No data available

SECTION 12: Ecological information**Ecotoxicity****Product:**Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.06 mg/l
Exposure time: 48 h**Components:****Alcohols, C12-14, ethoxylated:**

Toxicity to fish : Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available
Toxicity to algae : Remarks: No data available
Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.11 - 0.28 mg/l
Exposure time: 30 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.77 mg/l
Exposure time: 21 d
Toxicity to microorganisms : EC50 (Pseudomonas putida): > 10 g/l
Exposure time: 16.9 h

Persistence and degradability**Components:****Alcohols, C12-14, ethoxylated:**

Biodegradability : Remarks: Readily biodegradable, according to appropriate OECD test.

Bioaccumulative potential**Components:****Alcohols, C12-14, ethoxylated:**

Bioaccumulation : Bioconcentration factor (BCF): 237
Remarks: Potentially bio-accumulative.
Partition coefficient: n-octanol/water : log Pow: > 4

Mobility in soil**Product:**

Mobility : Medium: Soil

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Remarks: No data available

Components:

Alcohols, C12-14, ethoxylated:

Mobility : Medium: Soil
Remarks: No data available

Other adverse effects

Product:

Additional ecological information : Harmful to aquatic life with long lasting effects.
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Components:

Alcohols, C12-14, ethoxylated:

Additional ecological information : No data available

SECTION 13: Disposal information

Disposal methods

Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: Transport information

International Regulations

UNRTDG

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 : Y
Ship type : 2

SECTION 15: Regulatory information

Safety, health, and environmental regulations specific for the hazardous chemical

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.

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

REACH	: Not in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory.
NZIoC	: Not in compliance with the inventory
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory.
PICCS	: On the inventory, or in compliance with the inventory.
IECSC	: On the inventory, or in compliance with the inventory.
TCSI	: Not in compliance with the inventory
TSCA	: On TSCA Inventory.

SECTION 16: Other information

SDS preparation date	: 29.09.2014
Revision Date	: 08.06.2018
Sources of key data used to compile the Safety Data Sheet	: ECHA - European Chemicals Agency

Full text of other abbreviations

(Q)SAR	-	(Quantitative) Structure Activity Relationship
ACGIH	-	American Conference of Governmental Industrial Hygienists
AICS	-	Australian Inventory of Chemical Substances
ANTT	-	National Agency for Transport by Land of Brazil
ASTM	-	American Society for the Testing of Materials
bw	-	Body weight
CCHC	-	Chemicals Classification and Hazard Communication
CMR	-	Carcinogen, Mutagen or Reproductive Toxicant
CPR	-	Controlled Products Regulations
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
ICOP	-	Industry Code of Practice on Chemicals Classification and Hazard Communication
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

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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
MY PEL	-	Malaysian Permissible Exposure Limit
n.o.s.	-	Not Otherwise Specified
Nch	-	Chilean Norm
NITE	-	National Institute of Technology and Evaluation
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
OCSP	-	Office of Chemical Safety and Pollution Prevention
OECD	-	Organization for Economic Co-operation and Development
PBT	-	Persistent, Bioaccumulative and Toxic
PICCS	-	Philippines Inventory of Chemicals and Chemical Substances
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
STEL	-	Short Term Exposure Limit
TCSI	-	Taiwan Chemical Substance Inventory
TDG	-	Transportation of Dangerous Goods
TSCA	-	Toxic Substances Control Act (United States)
TWA	-	Time Weighted Average
UN	-	United Nations
UNRTDG	-	United Nations Recommendations on the Transport of Dangerous Goods
UVCB	-	Unknown or Variable Composition, Complex Reaction Products and Biological Materials
vPvB	-	Very Persistent and Very Bioaccumulative
WHMIS	-	Workplace Hazardous Materials Information System

Disclaimer

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Product Stewardship Advisory:

PETRONAS aims to increase awareness of all the hazards associated with the storage, handling and use of its products. Thoroughly reviewing the accompanying Safety Data Sheets and disseminating the information to all dependent and interested parties is an essential part of any 'Responsible Care' programme.



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