

**SAFETY DATA SHEET****1. IDENTIFICATION**

Product identifier : Minyak tanah
Other means of identification : Kerosine
Recommended use of the chemical and restrictions on use : Fuel for use in domestic and commercial heating and lighting equipment
Manufacturer : PT Pertamina (Persero)
Jl. Medan Merdeka Timur No. 1A
Jakarta Pusat ZIP Code 10110
Phone: 1500-000
Email: pcc@pertamina.com
Emergency phone number : 1500-000

2. HAZARD IDENTIFICATION

Classification : Flammable liquid, category 3
Skin corrosion/irritation, category 2
Aspiration hazards, category 1
Specific target organ toxicity (STOT)-single exposure, category 3 (narcotic effect)
Hazardous to the aquatic environment (acute hazard), category 2
Hazardous to the aquatic environment (long-term hazard), category 2

Signal word : Warning

Hazard statement : Physical Hazard
H226 – Flammable liquid and vapor
Health Hazard
H304 – May be fatal if swallowed and enters airways
H315 – Causes skin irritation
H336 – May cause drowsiness or dizziness
Environmental Hazard
H401 – Toxic to aquatic life
H411 – Toxic to aquatic life with long lasting effects

Precautionary statement : Prevention
P210 –Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 –Wear protective gloves/protective clothing/eye protection/face protection.
Response
P301 + P310 –IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 –Do NOT induce vomiting.



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2. HAZARD IDENTIFICATION

Storage

P403 + P235 – Store in a well-ventilated place. Keep cool.

Disposal

P501 -Dispose of contents/container according to valid disposal regulations.

Pictogram

:



Other hazards which do not result in classification

:

Slightly irritating to respiratory system. Liquid evaporates quickly and can ignite, it may explode in a confined space. Vapor in the headspace of tanks and containers may ignite and explode at temperatures exceeding auto-ignition temperature, where vapor concentration is within the flammability range. May ignite on surfaces at temperatures above auto-ignition temperature. This product is a static accumulator. Even with proper grounding and bonding, this product can still accumulate an electrostatic charge and stimulate ignition.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration (%)
Hydrocarbon	-	100

4. FIRST AID MEASURES

Necessary description

- In case of eye contact** : Flush eye with plenty of water. Rest eyes for 30 minutes. Remove contact lenses. If irritation occurs, refer to a doctor/physician.
- In case of skin contact** : Remove the contaminated clothes and wash before reuse. Clean the contaminated skin with dry napkin. Wash the contaminated skin with water and soap immediately minimum 15 minutes. Get medical advice immediately if further irritation occurs.
- If inhaled** : Keep away from exposure. Move victim to fresh air and keep at rest in comfortable position for breathing. Get medical advice immediately if further irritation and headache persist.
- If swallowed** : If victim swallows the product, give 1-2 glass of water immediately. If emergency condition occurs, seek for medical advice.
Do not give anything through mouth that can induce nausea or vomiting.
Swallowed substance may be absorbed to lungs and can



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4. FIRST AID MEASURES

- increase risk of chemical pneumonitis, in this case, appropriate treatment is needed.
- Most important symptoms/effects** : Skin irritation signs and symptoms may include a burning, sensation, redness, or swelling. Eye irritation signs and symptoms may include a burning, sensation and a temporary eye irritation. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, short breath, and/or fever, the onset of respiratory symptoms may be delayed for several hours after exposure. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea, and loss of coordination. Continued inhalation may result in unconsciousness and death.
- Indication that need immediate medical attention and special treatment** : Treat symptomatically

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Carbon dioxide (CO₂), dry chemical powder and foam
- Unsuitable extinguishing media** : Water jet and giving water and foam silmutaneously should be avoided
- Specific hazards**
- **Other explosion and fire hazards** : It occurs at unprotected storage tank around the fire location
- Flash point°C** : 38
- Flammability value** : LEL 0.6%, UEL 5.6%
- Hazardous chemical composition** : Carbon monoxide (CO)
- Special protective actions for fire fighters**
- a. **Carbon dioxide (CO₂)** : Spray to the origin of fire in the same direction with the wind.
 - b. **Dry chemical powder** : Spray to the origin of fire in the same direction with the wind.
 - c. **Foam** : If the fire is in a container, spray the foam to inner wall of the container (not to the ignited liquid) in the same direction with the wind. If the fire occurs because spill, spray to the origin of fire in the same direction with wind until all the fire covered. Do not dispose the spill to the clean water source (drinking water).
- Special protective equipment for fire-fighter** : If fire occurs in limited/indoor/closed area, fire fighter operator must wear Self-Contained Breathing



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5. FIRE-FIGHTING MEASURES

Apparatus(SCBA).

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment, and emergency procedures** : Keep away from fire source. Avoid direct contact with skin, eye, and clothes. Seal the release if possible. Attempt to disperse the gas and flow it to safe location, for example using fog spray. Evacuate personnel to the safe place. Beware of vapor which accumulates to form explosive concentration. Vapor can accumulate in low areas. Use personal protective equipment. Ensure adequate ventilation. Ensure there is no electrical charge and all tools with electricity charge have been grounded and bonded.
- Environmental precautions** : Prevent oil spill goes into drainage, sewage system, and soil.
- Procedures** : Report spill according to the valid system and procedures. If spill can go into drainage or streams, do immediate report to the authority.
- Methods and materials for containment and cleaning up** : Avoid any condition that may stimulate ignition. Prevent further spill and leakage if possible and safe to do. Do oil spill control with oil spill kit (absorbents: sawdust, sorbent pad/pillow, etc, and other fire retardant material). Use spark and explosion proof tools. Clean and dispose cleaned material in the right waste disposal according to valid regulations.

7. HANDLING AND STORAGE

- Precautions for safe handling** : Cause serious effect if contacted and absorbed by the skin. Avoid vapor and mist inhalation. Removable container used for keeping the product should be placed on the ground, completed with nozzle while filling to avoid static electrical charge.
- Conditions for safe storage (including any incompatibility)** : Store in cool, dry, and well-ventilated place. Classification and requirements of the tanks storage must become concern. Flammable vapor can form on the storage tanks although it is kept under flash point temperature. Avoid from flammable goods or may induce fire. Storage container must be grounded, bonded, and completed with pressure vacuum valve and flame arrester.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Control parameters**
- **Exposure limit** : TWA 200 mg/m³
 - **Biological exposure indicator** : Not available

**SAFETY DATA SHEET****8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Appropriate engineering control**

- **Ventilation** : If kerosene is used in closed container, ventilation is needed. Ventilation and tools must be explosionproof.

Individual protection

- **Eye and face protection** : Wear eye protection (*chemical type goggles*).
- **Skin protection** : Wear protective gloves (rubber or PVC).
- **Respiratory protection** : Wear respiratory protection with appropriate filter when there is accumulated vapor and excessive concentration which passes the TLV.
- **Hygiene practices** : Practice good personal hygiene

9. PHYSICAL AND CHEMICAL PROPERTIES AND SAFETY CHARACTERISTICS

Characteristic	Result
Organoleptic (physical appearance, color, etc.)	: Red
Odor	: Hydrocarbon
Odor Threshold	: Not available
pH	: Not available
Melting point/freezing point	: Not applicable
Initial boiling point/boiling range	: Not available
Flammability	: Flammable
Flash point	: 38°C
Evaporation rate	: Not available
Flammability limit	: LEL 0.6% - UEL 5.6%
Vapor pressure	: Not available
Vapor density	: Not available
Relative density	: Not available
Solubility	
• Water solubility	: Not available
• Other solubility	: Not available
Partition coefficient n-octanol/water (log value)	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity	: Not available

10. STABILITY AND REACTIVITY

- Reactivity** : Hazardous substances polymerisation does not occur.
- Chemical stability** : Stable.
- Possibility of hazardous reaction** : No hazardous reaction in normal condition.
- Condition to avoid** : Heat, fire sparks, flame, or condition that induce static electricity.
- Incompatible materials** : Halogen, strong acid, strong base dan strong oxidizer.



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10. STABILITY AND REACTIVITY

Hazardous decomposition product : Carbon monoxide (CO), carbon dioxide (CO₂), and sulphur oxide

11. TOXICOLOGICAL INFORMATION

Comprehensive toxicological/health information

- **Acute toxicity** : Vapor or mist may induce respiratory irritation
- **Skin corrosion/irritation** : No data available. Suspected that it may cause mild irritation according to compound or product which has similar structure or composition.
- **Serious eye damage/irritation** : No data available. Suspected that it may not cause serious damage but cause mild irritation according to compound or product which has similar structure or composition.
- **Respiratory or skin sensitization** : No data available. Suspected that it may not cause respiratory/skin sensitization according to compound or product which has similar structure or composition.
- **Germ cell mutagenicity** : No data available. Suspected that it is not mutagen according to compound or product which has similar structure or composition.
- **Carcinogenicity** : No data available. Suspected that it is not carcinogen according to compound or product which has similar structure or composition.
- **Reproductive toxicity** : Exposure to pregnant testing mice with representative dosage gives no adverse effect to the mice and its offspring
- **STOT-single exposure** : No data available. Suspected that it may cause narcotic effect according to compound or product which has similar structure or composition.
- **STOT-repeated exposure** : No data available. Suspected that it is not toxic to specific organ after repeated exposure according to compound or product which has similar structure or composition.
- **Aspiration hazards** : No data available but this product may cause death if swallowed or enters the airway according to compound or product which has similar structure or composition. The toxicological test result of vapor and mist exposure through inhalation while swallowing and vomiting may cause chemical pneumonitis which can result to death.

Likely routes exposure information : Inhaled, swallowed, skin contact, and eye contact.

Symptoms related to the physical, chemical, and toxicological characteristics : Skin irritation signs and symptoms may include a burning, sensation, redness, or swelling. Eye irritation signs and symptoms may include a burning, sensation and a temporary redness of the eye. 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.



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11. TOXICOLOGICAL INFORMATION

- Delayed and immediate effects, and also chronic effects both in short or long term exposure** : No data available. Further testing has not been done.
- Numerical measure of toxicity** : No data available. Further testing has not been done.
- Interactive effects** : No data available. Further testing has not been done.
- Where specific chemical data are not available** : No data available. Further testing has not been done.
- Mixture** : No data available. Further testing has not been done.
- Mixture vs. Ingredient information** : No data available. Further testing has not been done.
- Other information** : A sub-chronic test done with mice with 5 days/week along 90 days and high dosage exposure. Observation is evaluated by the internal organs and body liquid, the result shows there is no adverse effect. Product contains base oil made from either solvent refined or hydrotreated one, but chronic study by applying product to skin shows no carcinogenic effects. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea, and loss of coordination. Continued inhalation may result in unconsciousness and death.

12. ECOLOGICAL INFORMATION

- Ecotoxicity** : Soil seepage may cause soil water contamination or aquifer.
- Persistence and degradability** : No data available. Further testing has not been done.
- Bioaccumulation potential** : No data available. Detailed toxic effects is related to concentration nominal value. Further testing has not been done.
- Mobility in soil** : No data available. Further testing has not been done.
- Other adverse effects** : No data available. Further testing has not been done.

13. DISPOSAL CONSIDERATION

- Disposal methods** : May be burned with incinerator according to the valid regulation.

**Law information: this product sludge waste is classified as hazardous waste (except it is not proven after TCLP (Toxicity Characteristic Leaching Procedure) testing), so that the disposal must follow valid provision.*



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14. TRANSPORT INFORMATION

USA DOT

UN Number : UN 1223
UN proper shipping name : Kerosene
Transport hazard class(es) : Flammable liquid
Packing group (if available) : PG II
Environmental hazard :
ERG Number : 12 8
Special precautions for user (UN Model Regulation) : Label – Flammable Liquid, Placard – Flammable

RID / ADR

UN Number : UN 123
UN proper shipping name :
Transport hazard class(es) : 3; Sub-class 31(C); Danger number-30
Packing group (if available) :
Environmental hazard :
Special precautions for user : Label - 3

IMO

UN Number : UN 1263
UN proper shipping name : Kerosene
Transport hazard class(es) : 3.3
Packing group (if available) : PG II
Environmental hazard :
Special precautions for user : Label-flammable liquid

ICAO / IATA

UN Number : UN 1202
UN proper shipping name : Kerosene
Transport hazard class(es) : 3
Packing group (if available) : PG II
Environmental hazard :
Special precautions for user : Label-flammable liquid

15. REGULATORY INFORMATION

Safety, health, and environmental regulation (specific for the product in question) : - Peraturan Menteri Perindustrian Nomor 23/M-IND/PER/4/2013 tentang Perubahan Atas Peraturan Menteri Perindustrian Nomor 87/M-IND/PER/9/2009 Tentang Sistem Harmonisasi Global Klasifikasi dan Label pada Bahan Kimia
- Peraturan Direktur Jenderal Basis Industri Manufaktur Nomor 04/BIM/PER/1/2014 tentang Petunjuk Teknis dan Petunjuk Pengawasan Pelaksanaan Sistem Harmonisasi Global dan Klasifikasi dan Label
- Peraturan Pemerintah Republik Indonesia Nomor 74 Tahun 2001 Tentang Pengelolaan Bahan Berbahaya dan Beracun Presiden Republik Indonesia



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15. REGULATORY INFORMATION

- Keputusan Menteri Tenaga Kerja No Kep-187/Men/1999 tentang Pengendalian Bahan Kimia Berbahaya
- Peraturan Menteri Kesehatan Republik Indonesia Nomor 70 Tahun 2016 tentang Standar dan Persyaratan Kesehatan Lingkungan Kerja Industri
- ACGIH®. 2016. TLVs® and BEIs®

16. OTHER INFORMATION

- Composing date** :
Revision date : March 2017
Key/legend or acronym used in the SDS : ACGIH® – The American Conference of Governmental Industrial Hygienists
ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM – American Society for Testing and Materials
BEIs® – Biological Exposure Indices
CAS No. - Chemical Abstract Service Registry Number
IATA – The International Air Transport Association
ICAO – The International Civil Aviation Organization
IMO – The International Maritime Organization
NAB – Nilai Ambang Batas
PG – Packaging Group
RID – Regulation concerning the International Carriage of Dangerous Goods by Rail
STEL – Short-Term Exposure Limit
UN – United Nations
USA DOT – United States Department of Transportation
TLVs® – The Threshold Limit Values
TWA – Time Weighted Average
- Key literature references and sources for data used in the SDS** : -
- Other** : Contains aromatic petroleum oil. Hazardous is contacted with skin repeatedly and in a long time. Flammable good. May cause cancer, liver damage, and blood components damage. All risks brought by the products is borne by the user. All warninf signs and handling procedures must be obtained by the user and staffs that handle the products.

Disclaimer

The information is composed based on current knowledge and intended to describe safety, health, and environment hazard of the product. Therefore, it should not be construed as guarantee any specific property of the product. All risks while using this product is the user's responsibility. It is not allowed to make change of this document, except there is legal consent.



PT PERTAMINA (PERSERO)

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