



Material Safety Data Sheet

SECTION A: Manufacturer and Supplier

Manufacturer's Name Japan Vietnam Petroleum Co., Ltd.	Emergency Telephone Number	84-254-3856937
Address (Number, Street, City, Province and Nation) 7 th Floor Petro Vietnam Towers, 8 Hoang Dieu Street, Vung Tau, S. R. Vietnam	Telephone Number for Information	84-254-3856937
	Date updated	Dec 2021
	Updated by	Production

SECTION B: Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity: Common Name)		ACGIH (TLV/LC50)	Other Limits Recommended
100%	Petroleum Hydrocarbon		
	Containing:		
< 0.1 %	Sulfur	N/A	
< 1.0 %	Benzene	10 ppm	OSHA STEL(Short Term Exposure Limit): 5 ppm
< 1.0 %	Toluene	100 ppm	ACGIH/OSHA STEL: 150 ppm
< 1.0 %	Xylene / Ethyl Benzene	100 ppm	ACGIH/OSHA STEL: 150 ppm

SECTION C: Physical/Chemical Characteristics

Boiling Point (C°)	20-565+	Specific Gravity (g/cm ³)	0.8220
Reid Vapor Pressure (psia)	6.45	Pour Point (°C)	30
Molecular Weight	208.7	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water: Insoluble in water. Soluble in hydrocarbon.		Kinematic Viscosity at 50oC (cSt)	4.068
Appearance and Odor: Amber to black, rather viscous liquid with slight pungent to sulfurous odor.			

SECTION D: Fire and Explosion Hazard Data

Flash Point (Method)	Below room temperature	Flammable Limits	LEL	UEL
Extinguishing Media: CO ₂ , dry chemical, foam, water fog. Do not use water spray or a direct stream of water.				
Special Fire-fighting Procedure: This material presents fire hazards. Liquid quickly evaporates and forms vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot burner, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above room temperature.				
Unusual Fire and Explosion Hazards: N/A				

SECTION E: Reactivity Data

Stability	Unstable	3	Conditions to Avoid: N/A
	Stable		
Incompatibility (Materials to Avoid): May react with strong oxidation agents such as chlorates, nitrates, peroxides, etc.			
Hazards Decomposition or Byproducts: Normal combustion forms oxides of sulfur. Incomplete combustion can produce carbon monoxides.			
Hazardous Polymerization	May Occur	3	Conditions to Avoid: N/A
	Will Not Occur		

Material Safety Data Sheet

Part 2
Rang Dong Crude Oil

SECTION F: Health Hazard Data

Route(s) of Entry:	Inhalation?	3	Skin?	3	Ingestion?	3
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Health Hazards (Acute and Chronic):

Eye contact: The eye irritation potential of this substance has not been determined. However, it may be slightly irritating to the eyes and could cause prolonged impairment of your vision. The degree of the injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment.

Skin Contact: It is expected to cause no more than minor skin irritation, but prolonged or frequently repeated skin contact may be harmful.

Dermal Toxicity: The systematic toxicity of this substance has not been determined, however, it is considered to be practically non-toxic to internal organs if it gets on the skin.

Respiratory/Inhalation: Breathing the vapor may be irritating to the respiratory tract. Prolonged breathing of vapors can cause central nervous system effect.

Ingestion: The oral toxicity of this substance has not been determined. However, it may be slightly toxic to internal organs if swallowed. The degree of injury will depend on the amount absorbed from the gut.

Signs and Symptoms of Exposure:

Eye contact: Signs and symptoms may include pain, tears, swelling, redness and blurred vision.

Skin Contact: It is expected to cause no more than minor skin irritation.

Respiratory/Inhalation: Signs and symptoms of respiratory tract irritation may include, but not be limited to nasal discharge, sore throat, coughing, bronchitis, pulmonary edema and difficulty in breathing. Signs and symptoms of central nervous effects may include one or more of the following: headache, dizziness, loss of appetite, weakness and loss of coordination. This hazard evaluation is based on the known toxicity of the ingredients in this substance.

Ingestion: Because of the low viscosity of this substance, it can directly enter the lungs if it is swallowed. The oral toxicity of this substance has not been determined. However, it may be slightly toxic to internal organs if swallowed. This can occur during the act of swallowing or when vomiting the substance. Once in the lung, the substance is very difficult to remove and can cause severe injury to the lungs and death.

Medical Conditions Generally Aggravated by Exposure: N/A

Emergency and First Aid Procedures:

Eye contact: Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. No additional first aid should be necessary. However, if irritation persists, see a doctor.

Skin Contact: Remove contaminated clothing. Wash skin thoroughly with soap and water. See a doctor if any signs or symptoms described in this document occur. Discard contaminated non-waterproof shoes and boots. Wash contaminated clothing.

Inhalation: If any signs or symptoms described in this document occur, move the person to fresh air. If any of these effects continue, see a doctor.

Ingestion: If swallowed, give water or milk to drink and telephone for medical advice. Do not make person vomit unless directed to do so by medical personnel. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

SECTION G: Precautions for Safe Handling

Steps to be Taken in Case Material is Released or Spilled:
Eliminate all open flame in vicinity of spill or released vapor. Stop the source of leak or release. Clean up releases as soon as possible, observing precautions for protective equipment. Contain liquid to prevent further contamination of soil, surface water or ground water. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to the larger spills.

Waste Disposal Method:
Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental authorities for approved disposal.

Precautions to be taken in Handling and Storing:
Do not use or store near flame, sparks or hot surface. Use only in well-ventilated area. This material is considered to be a water pollutant and releases of this product should be prevented from contaminating soil and water and from entering drainage and sewer system.

Other Precautions:
This material is considered to be hydrogen sulfide free product, however persons opening or entering the compartments should first determine if hydrogen sulfide gas is present.

SECTION H: Control Measure

Respiratory Protection (Specify Type):
Use of approved respiratory protection is recommended.

Ventilation	Local Exhaust	Should be handled in well ventilated area.	Special N/A
	Mechanical (General)	N/A	Other N/A

Protective Gloves Protective gloves for chemical handling is recommended.	Eye Protection Eye contact can be avoided by wearing chemical goggles.
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Other Recommended Clothing or Equipment:
Wearing protective clothing can minimize skin contact.

Work/Hygienic Practices:
This material contains Benzene. Appropriate operating practices for Benzene handling are recommended.