



CARGO HANDLING REQUIREMENTS

Shell GTL Waxy Raffinate

1. PRODUCT DETAILS

Product name:	Shell GTL Waxy Raffinate
Synonym/Alternative Name:	Slack Wax (Petroleum), Hydrotreated
Product Code :	
SDS :	Shell GTL Waxy Raffinate
Emergency telephone number:	+60-86 292 222

2. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	Colourless
Appearance:	liquid
Odour:	Slight Hydrocarbon
Vapour pressure:	≤ 0.0005 kPa (20.0°C/ 68.0 °F)
Initial Boiling Point:	> 280 °C/536 °F
Solubility in water:	Neglible
Density:	810 kg/m ³ (15.0°C /59.0°F)
Flash Point:	200 °C /392 °F
Explosion Limits Lower/Upper :	Typical 1%(V) / Typical 10%(V)
Auto-ignition temperature:	> 320 °C/608 °F
Evaporation Rate :	Data not available
Kinematic Viscosity:	12.1 mm ² /s (40.0°C / 104.0°F)
Partition co-efficient, n-octanol/water :	Pow: >6

3. TRANSSHIPMENTS

Notes : Transshipments (Ship/Ship & Ship/Barge) usually permitted but operations is dependent on risk assesement (location of operation, vessels used, nature of products etc). Consult regional MTA for advise and clearance prior to fixing transshipment operation.

4. MARPOL DETAILS

Shipping name :	Waxes
Marpol Annex :	I
IMO Ship Type :	IMO 2/3
IMO Pollution Category :	Y
Pre Wash :	NO
Kinematic Viscosity :	12.1 mm ² /s (40.0°C / 104.0°F)
Solidifying :	< 43 °C
Notes :	This product is classed as Cat "Y" and does not require a prewash if heated as per instructions. Shell policy however is to prewash this cargo to shore to avoid environmental concerns

5. CARGO HANDLING CRITERIA

All shore, ship, cargo line and tanks are to be presented (residual free) gas free, dry, ordour free, and rust free, with good gaskets and pressure tested steam coils.

Pre-purging of Vessel's Tanks :	YES
Pre-purge Oxygen Percent	3 percent
N2 blanket required:	YES
N2 blanket percent :	3 percent
Loading Temperature range:	57 – 100 °C
Transit Temperature :	52 – 57 °C
Discharge Temperature :	57 – 62 °C
Adjacent Max.cargo Temperature:	75 °C

Cargo Handling Notes :

Waxy Raffinate has a melting point of about 40°C and will begin to solidify at temperature of about 43°C. However, if exposed to temperatures above 75° for a prolonged period of time, Waxy Raffinate might alter its specification (especially in this long journey).

Instructions:

1. Use low-pressure steam for heating
2. The heating should commence upon the restart of product loading after 2-foot samples are taken. Please ensure that heating coils are covered by cargo.
3. Heating should be continuous during the voyage and Waxy Raffinate temperature kept at not less than 52°C.
4. Discharge: 4 days prior to discharge, the Waxy Raffinate temperature should slowly be increased to 57-62 °C.

Temperature increase should not be more than 2-3°C per 24 hours period.

6. TANK ACCEPTANCE CRITERIA**Stainless Steel or Coated Tanks:**

Stainless Steel Tanks

Wall Wash Required:

NO

Wash Notes:**Tank Acceptance Notes :**

Maintenance of steam coils is to be verified with the ship's log. If products is to be heated, steam coils are to be confirmed leak free. If products is not heated, steam coils are to be drained, dry, clean, blanked off and steam source is to be isolated from the tanks.

7. SAFETY INFORMATION AND INCIDENT REPORTING

Safety Information :-

For more information, refer to MSDS and to EDS for reportable spill/release quantities whether in water, air or ground.

Incident Reporting :-

IN THE EVENT OF A MARINE INCIDENT/CASUALTY/SPILL : CASUALTY NOTIFICATION PROCEDURE

In the event of an incident as described below, SHELL CASUALTY must be notified within ONE HOUR of the incident occurring:

- AN INCIDENT WHICH MIGHT OR HAS PUT AT RISK THE LIVES OF PERSONS AND/OR THE SAFETY OF THE VESSEL AND/OR THE ENVIRONMENT AND WHOSE CONSEQUENCES HAVE OR MIGHT INVOLVE OTHER SHELL COMPANIES, THIRD PARTIES, GOVERNMENT OR THE MEDIA.
- A LOSS OF PRIMARY CONTAINMENT OF OIL, GAS (LNG/LPG), CHEMICALS, OR BULK CARGO, OWNED BY A SHELL COMPANY OR AT A SHELL FACILITY, OR FROM A SHIP MANAGED OR CHARTERED BY A SHELL COMPANY.
- A SIGNIFICANT DELAY TO ANY SHIP WHOSE CHARTER, CARGO OR BERTH INVOLVES A SHELL COMPANY
- AN INCIDENT OF ALLEGED NON COMPLIANCE WHERE REGULATORS HAVE OR MAY BECOME INVOLVED.
- A SECURITY INCIDENT INCLUDING A SUSPICIOUS PIRACY APPROACH OR PIRACY ATTACK.

NOTIFICATION SHOULD BE MADE IN THE FOLLOWING ORDER OF PRIORITY.

- BY TELEPHONE : (+44)-207-934-7777, THE DEDICATED TELEPHONE NUMBER FOR CASUALTIES, (24 HOURS)
- BY E-MAIL : casualtyalert@shell.com
- BY TELEX : SHELLCASUALTY LONDON 8814807

