



Shell MDS (Malaysia) Sendirian Berhad

Date prepared: 27th Sept 2018
Supersedes: 27th Feb 2018

CARGO HANDLING REQUIREMENTS

Shell GTL Sarawax SX70

1. PRODUCT DETAILS

Product name:	SHELL GTL SARAWAX SX70
Alternative Product Name:	PARAFFIN WAX
Product Code :	002D6196
CAS No :	8002-74-2
Emergency telephone number:	+60-86 292 222

2. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Waxy solid at room temperature: Liquid at high temperatures
Colour :	White
Odour :	Odourless
Vapour pressure :	≤ 0.0005 kPa (20 °C/ 68.0°F)
Boiling Point/Boiling range:	$> =280$ °C/ $> =536$ °C
Flash Point :	$> =210$ °C/ ≈ 410 °C
Melting Point :	70 °C
Relative Density:	0.780 (70°C / 158 °F)
Density :	780 kg/m ³ (70°C / 158°F)
Flash Point:	210 °C
Flammable Limits Lower/Upper :	Data not available
Auto-Ignition temperature:	> 320 °C/ 608°F
Viscosity, Kinematic :	5-7 mm ² /s (100 °C / 212 °F)
Conductivity:	Low conductivity : < 100 pS/m
Partition co-efficient, n-octanol/water :	Pow: >6 (based on information on similar products)

3. TRANSSHIPMENTS

Notes : Transshipments (Ship/Ship & Ship/Barge) usually permitted but operations is dependent on risk assessment (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 :	PARAFFIN WAX
Marpol Annex :	II
IMO Ship Type :	IMO 2
IMO Pollution Category :	Y
Pre Wash :	NO
Kinematic Viscosity :	5.9514 mPa's at 90 deg C 5.104 - 5.280 mPa's at 100 deg C
Solidifying :	No, if the cargo temperature at the time of unloading is maintained at least 10 deg C above the melting point of the substance stated in Section 2.

Notes :

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.

LAST THREE CARGO RESTRICTION : Immediate prior cargo acceptable products have to be clean, odourless, and non-toxic products meeting FDA food-grade materials/NIOP/FOSFA prior cargo restriction. Next two(2) cargoes must be clean, ordorless and non-toxic products. Unacceptable prior cargoes include those listed in the current NIOP prior listings for last three cargoes. Pesticides, radioactive materials, medical wastes, and hazardous wastes are never acceptable.

Pre-purging of Vessel's Tanks :	YES
Pre-purge Oxygen Percent	3 percent
N2 blanket required:	YES
N2 blanket Oxygen percent	3 percent
Loading Temperature range:	88-118 Deg C
Transit Temperature :	80-85 Deg C
Discharge Temperature :	88-92 Dec C

**Adjacent Max.cargo
Temperature:**

95 Deg C

BHT (Anti-Oxidant) Dosing:

YES (Manual Dosing)

Cargo handling Notes :

Sarawax SX70 has a melting point of about 70°C and shall begin to solidify at temperature of about 80°C. However if exposed to temperatures of above 95°C for a prolonged period of time, SX70 might alter its specifications (especially in this long journey).

SX70 is to be stowed in stainless steel tanks.

Instructions:

- a. Use low-pressure steam for heating.
- b. The heating should commence upon the restart of product loading after 2-foot samples are taken. Please ensure that heating coils are covered by Paraffin wax.
- c. Heating should be continuous during the voyage and SX70 cargo temperature should be kept at min 80 - max 85°C
- d. Discharging: 4 days prior to discharge the SX70 temperature shall be slowly increased to 88-92°C.

Temperature increase shall 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 :

Vessel to maintain overpressure and 3% oxygen content in vapour space over product during voyage. Vessel to provide daily log for each separate tank recording temperature, nitrogen over pressure , and product temperature. Vessel to provide copy of the log to charterer at mid-point of the voyage, and give copy of log to receiver at port of discharge. 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. Upon advise from shore, vessel is to start tank heating before loading to prevent product congealing on the ship tank floor and walls. Vessel's plan to preheat to be communicated separately and to be know at time of preloading conference.

7. SAFETY INFORMATION AND INCIDENT REPORTING

Safety Information :-

For more information, refer to SDS 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