



**Shell Chemicals**

# Cargo Handling Sheet

Piperylene 75%

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Revision 3

*Cargo Handling Sheets are for the use of vessels chartered by Shell Chemicals*

## Product Details

Product Name:	Piperylene 75%
Shipping Name:	1,3-Pentadiene (greater than 50%), cyclopentene and isomers, mixtures
Chemical Family:	Olefins
Product Code:	X2163

SDS: <http://www.shell.com/business-customers/chemicals/safe-product-handling-and-transportation/safety-data-sheets.html>

## Physical Properties

Density:	Typical 725 kg/m <sup>3</sup> (20 °C / 68 °F)
Kinematic Viscosity:	Data Not Available
Vapor Pressure:	45 kPa (20 °C / 68 °F)
Boiling Point:	42 °C / 108 °F
Melting Point:	Data Not Available
Flash Point:	-29 °C / -20 °F
Appearance:	Colourless to light colour

**Note 1:** Physical Properties are for reference only and valid as of date of this revision; see loading terminal for specific properties.

**Note 2:** This product is Toxic and a Static Accumulator.

**Note 3:** This product is Inhibited.

**Transhipment** Prior to arranging transhipment, Charterers must agree to Owner's proposed plan

## Marpol Details

Marpol Annex:	II
IMO Ship Type:	2
Inland Barge:	Double Hull
IMO Pollution Category:	Y
IBC 16.2.6:	No

IBC 16.2.9: No  
Pre-wash Required: No  
Compatibility Group: USCG compatibility group 30

### Cargo Handling Requirements

N2 Purge Cargo Tanks Prior Loading: Yes; PQ Requirement; 0.2 % O<sub>2</sub>; see notes below  
N2 Blanket Required: Yes; PQ Requirement; 0.2 % O<sub>2</sub>; see notes below  
Vapor Space Purge: No  
Loading Temperature Range: Ambient – max 32 °C / 90 °F  
Transit Temperature Range: Ambient – max 32 °C / 90 °F  
Discharge Temperature Range: Ambient – max 32 °C / 90 °F  
Maximum Heating Coil Temperature: Blanked off  
Adjacent Maximum Cargo Temperature: Ambient – max 32 °C / 90 °F

**Note 1:** Inerting is notated in Column H, IBC code with reference to section 9.1.2.1

**Note 2:** If vessel must inert tanks in accordance with regulation and/or Shell Chemical Inert Gas Clause, then only N<sub>2</sub> will be accepted as an inerting medium.

**Note 3:** If Nitrogen blanket is in place and Carrier chooses to tranship, carrier must reapply nitrogen blanket on the cargo, both on the discharging and receiving vessel, at their time, risk, and expense.

**Note 4:** PQ = Product Quality

**Note 5:** N<sub>2</sub> Blanket Guidance:

- a. O<sub>2</sub> level in tanks: 0.2 % O<sub>2</sub>
- b. Vessel to maintain a constant nitrogen overpressure of 20 millibars or more during the voyage
- c. Surveyor to record in survey report the type of cargo monitoring system and nitrogen replenishment system used onboard the vessel
- d. Vessel to keep a daily N<sub>2</sub> log of each tank:
  1. Tank pressure
  2. O<sub>2</sub> level
  3. Tank Temperature

Log is to be presented to receiver at time of discharge and a copy sent to Charterers.

### Regional Requirements

None

### Tank Acceptance Requirements

All nominated shipboard cargo handling systems are to be presented clean (residual free), dry, odor free, rust free, with good gaskets, fit to load this cargo.

Maintenance of heating coils is to be verified in the ship's log. If product is to be heated, heating coils are to be confirmed leak free. If product is not heated, heating coils are to be blown clear and dried with N<sub>2</sub>, and blanked off.

**Stainless Steel or Coated Tank:** Stainless Steel  
**Banned Prior Cargo:** Strong acids and strong bases  
**Wall Wash Required:** No

## Safety Information and Incident Reporting

### Safety Information:

For more detailed information, refer to the SDS or e-SDS for reportable spill/release quantities whether in the water, air or ground.

### Incident Reporting:

International Registered Vessels: If an incident occurs call Shell International Trading and Shipping in London on +442079347777.

Jones Act Vessels: call the Shell 24 hr. incident number at +17132412532. The USA National Response Center telephone number is +18004248802.

For additional marine cargo handling advice or information, contact Captain Stephen Boudreaux at +18323376982 or Capt. Ben van Bommel at +31104415992.



#### Shell Chemical LP

PO Box 4407

Houston

Texas 77210

USA

Tel +1 866 897 4355

**Internet <http://www.shell.com/chemicals>**

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