



**Shell Chemicals**

# Cargo Handling Sheet

Reformatate Heart Cut Above 50 %  
Benzene

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Revision 3

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

## Product Details

Product Name:	Reformate Heart Cut Above 50 % Benzene	
Shipping Name:	Benzene and mixtures having 10% benzene or more (i)	
Chemical Family:	Aromatics	
Product Code:	Q9119, Q9105	(Benzene 40% - 60%)
	Q911A	(Benzene 50% - 70%)

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

## Physical Properties

Density:	ca. 770 kg/m <sup>3</sup> at 15 °C / 59 °F
Dynamic Viscosity:	ca. 0.5 – 1.0 mPa.s at 20 °C / 68 °F
Vapor Pressure:	Typical < 100 kPa at 50 °C / 122 °F
Boiling Point:	ca 40 -150 °C / 104 -302 °F
Melting Point:	< -30 °C / -22 °F
Flash Point:	< -30 °C / -22 °F
Appearance:	Light coloured liquid with aromatic odour

**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 a Static Accumulator

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

## Transhipment

Prior to arranging transhipment Charterer must agree to Owner's proposed plan. When arranged by the Owner, Owner must ensure that all transhipment vessels comply with the requirements of this cargo handling sheet.

## Marpol Details

Marpol Annex:	II
IMO Ship Type:	3, must be double hull
Inland Barges:	Double Hull
IMO Pollution Category:	Y

IBC 16.2.6:	No
IBC 16.2.9:	Yes
Pre-Wash Required:	No pre-wash required if discharged in accordance with CHS
Compatibility Group:	USCG compatibility group 32

### Cargo Handling Requirements

N2 Purge Cargo Tanks Prior Loading:	Not a PQ Requirement; See Regional Requirements below
N2 Blanket Required:	Not a PQ Requirement; see below notes and Regional Requirements
Adjacent Space Purge:	No
Loading Temperature Range:	Ambient
Transit Temperature Range:	Ambient
Discharge Temperature Range:	Ambient
Maximum Heating Coil Temperature:	Blanked off
Adjacent Maximum Cargo Temperature:	35 °C / 95 °F

**Note 1:** If vessel must inert tanks in accordance with regulation and/or Shell Chemical Inert Gas Clause, then only N2 will be accepted as an inerting medium.

**Note 2:** 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 3:** PQ = Product Quality.

### Regional Requirements

**Note 1:** Inter-Europe Barging: see Netherlands SDS for local requirements

**Note 2:** Shell Pernis requires N2 purging to < 8% O2 prior to loading and maintenance of N2 blanket during voyage

**Note 3:** N2 Blanket Guidance:

- O2 level in tanks: < 8%
- Vessel to maintain a constant nitrogen overpressure of 20 millibars or more during the voyage
- Vessel to keep a daily N2 log of each tank:
  - Tank pressure
  - O2 level
  - Tank Temperature

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

## 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.

<b>Stainless Steel or Coated Tank:</b>	Either, carrier to verify suitability of coating for product
<b>Prior Cargo Restrictions:</b>	No
<b>Wall Wash Required:</b>	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.



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