

# PROPYLENE

#### **PRODUCTION**:

The propylene fraction is obtained as a secondary product from the process of ethylene production by straight-run naphtha cracking. Crack gas from depropanizer goes to the  $C_3$  hydrogenation system, and than into propylene redestilation column, where at the bottom the propylene fractions is separated.

### **DESCRIPTION:**

Propylene  $(C_3H_6)$  is colourless, explosive, and easily flammable gas.

### **SPECIFIED PROPERTIES:**

| No. | PROPERTY                         | TEST METHOD                                 | UNIT      | VALUE    |
|-----|----------------------------------|---|-----------|----------|
| 1.  | Propylene                        | SRPS H.B9.200 (2015)<br>ASTM 2712-91 (2016) | % (V/V)   | min 93.0 |
| 2.  | Propane                          | SRPS H.B9.200 (2015)<br>ASTM 2712-91 (2016) | % (V/V)   | max 7.0  |
| 3.  | Ethylene                         | SRPS H.B9.200 (2015)<br>ASTM 2712-91 (2016) | ppm (V/V) | max 500  |
| 4.  | Ethane, Methane                  | SRPS H.B9.200 (2015)<br>ASTM 2712-91 (2016) | ppm (V/V) | max 1000 |
| 5.  | Methyl acetylene                 | SRPS H.B9.200 (2015)<br>ASTM 2712-91 (2016) | ppm (V/V) | max 10   |
| 6.  | Propadiene                       | SRPS H.B9.200 (2015)<br>ASTM 2712-91 (2016) | ppm (V/V) | max 30   |
| 7.  | Acetylene                        | SRPS H.B9.200 (2015)<br>ASTM 2712-91 (2016) | ppm (V/V) | max 5    |
| 8.  | 1,3-Butadiene                    | SRPS H.B9.200 (2015)<br>ASTM 2712-91 (2016) | ppm (V/V) | max 50   |
| 9.  | Other C <sub>4</sub> and heavier | SRPS H.B9.200 (2015)<br>ASTM 2712-91 (2016) | ppm (V/V) | max 2000 |
| 10. | Carbon monoxide                  | SRPS H.B8.700 (2015)<br>ASTM 2504-88 (2015) | ppm (V/V) | max 1    |
| 11. | Carbon dioxide                   | MA0743-UP050                                | ppm (V/V) | max 15   |
| 12. | Oxygen                           | SRPS H.B8.700 (2015)<br>ASTM 2504-88 (2015) | ppm (V/V) | max 5    |
| 13. | Hydrogen                         | SRPS H.B8.700 (2015)<br>ASTM 2504-88 (2015) | ppm (V/V) | max 20   |
| 14. | Nitrogen                         | SRPS H.B8.700 (2015)<br>ASTM 2504-88 (2015) | ppm (V/V) | max 50   |
| 15. | Total sulphur                    | SRPS B.H8. 125 (2015)                       | ppm (m/m) | max 10   |
| 16. | Moisture                         | MA0743-UP051                                | ppm (V/V) | max 10   |

SRPS - National Standard Method

MA - Internal HIPP Method

The values given in the table are specified and used only as an information.



#### **APPLICATION :**

Propylene is used for the production of polypropylene, propylene dichloride, propylene oxide, propylene glycole, propyl alcohol, propyl acetate, acrylo nytryl, isopropyl bensol, detergent alkylate, etc.

# STORAGE:

Propylene is storage in cylindrical closed tanks. The design and material of these tanks have to be in compliance with the regulations prescribed for the storage of liquefied flammable gasses. The temperature within tanks is maintained at -48°C, and pressure from 15mbarg to 25 mbarg.

### TRANSPORTATION:

Propylene is transported by the rail tank cars which are specially attested for the transportation of liquefied gases. These tank cars are made of carbon steeel.

# **REACH:**

HIP-Petrohemija a.d. Pančevo, Serbia, with applying the existing standards ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 and ISO 50001:2011 follows completely the highest standards by which there are regulated human health and safety protection and environmental protection, and herewith expresses its intention to meet all the requirements which are prescribed by REACH regulation.

Registration of all the substances of potential export interest has been made with European Agency for Chemicals in Helsinki, in accordance with the prescribed deadlines, therefore in this way it enables further undisturbed placement and sale of HIP-Petrohemija a.d. Pancevo products without any limits at EU Market.

As the only representative for HIP-Petrohemija a.d. Pancevo in EU, pursuant to Article 8. of REACH regulation, there has been designated REACHLaw ltd., Helsinki, Finland.

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