SS – 28: PROPYLENE POLYMER GRADE STANDARD SPECIFICATION

1) **PRODUCT DESCRIPTION / APPLICATION:**

The propylene polymer grade is obtained by splitting of the propane – propylene mixture and after that is dried and advance purified. The propylene polymer grade is used in process plants as raw material for polypropylene production.

2) **PROPERTIES:**

Properties	UM	ADMITED LIMITS		TEST METHOD
		MIN	MAX	
Propylene	%(v/v)	**99.5**		ASTM D2712
Σ C_1-C_4 from which:	%(v/v)		**0.4**	ASTM D2712
➢ **acetylene**	ppm (v/v)		**2**	ASTM D2712
➢ **metiacetylene**	ppm (v/v)		**3**	ASTM D2712
➢ **total acetylene+diene**	ppm (v/v)		**10**	ASTM D2712
➢ **Σ C_6**	%(v/v)		**0.1**	ASTM D2712
Hydrogen	ppm (v/v)		**5**	WASSON 462B
Oxygen	ppm (v/v)		**2**	WASSON 462B
Nitrogen	ppm (v/v)		**20**	WASSON 462B
CO	ppm (v/v)		**0.07**	WASSON 462B
CO_2	ppm (v/v)		**4**	WASSON 462B
Total Sulfur from which:	ppm (v/v)		**1**	WASSON 462B
➢ **COS**	ppm (v/v)		**0.02**	WASSON 462B
➢ **RSH+H_2S**	ppm (v/v)		**0.98**	WASSON 462B
Methanol	ppm (v/v)		**5**	WASSON 462B
i-Propanol	ppm (v/v)		**0**	WASSON 462B
Ammonia	ppm (v/v)		**5**	WASSON 462B
Arsines	ppm (v/v)		**0.03**	WASSON 462B
Phosphines	ppm (v/v)		**0.03**	WASSON 462B
Moisture (water)	ppm (v/v)		**5**	WASSON 462B

3) **Quality control**:

Control is done on line and on lots. The product is stored in spheres / LPG tanks

-A lot quantity is equal with the exiting amount of propylene polymer grade in the sphere when the testing sample was taken. The lot will contain product of the same grade.

-During test operation, the product must comply with all the parameters depicted in this standard specification, otherwise the product is rejected.

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4) **Sampling procedure**:

- Sampling will be done periodical according with the provisions of the Testing Program and the quality standards in force or on demand.

- The samples will be taken in accordance with the sampling procedure: SR EN ISO 4257:2002 / ASTM D1265:2011

5) **DELIVERY:**

On pipe until to the specified sphere / LPG tank.

6) **TRANSPORT:**

On pipe until to the specified sphere / LPG tank.

7) **VALABILITY**:

The product is guaranteed 6 months after production data, under the recommended "handling, transport and storage" conditions, according to MSDS-07.

8) **GUARANTEE:**

Not applicable.

9) **DOCUMENTS:**

Certificate of conformity / Test report according with the actual legislation.

10) **HANDLING, STORAGE AND TRANSPORT INFORMATION**:

According to "SAFETY DATA SHEET" - MSDS - 07.

11) **OTHER INFORMATIONS:**

The MSDS for propylene polymer grade produced by Rompetrol Rafinare is available by Operational Supply Chain Rompetrol Rafinare Department for the customers .The MSDS contains necessary information in order to ensure customers' own safe in handling and processing activity.

The information below is related only to the delivered product. Subsequent additions of other components necessary for processing have its own documentation, which must be consulted.

Safety

Propylene is a colorless gas, in normal conditions. At high pressure propylene is liquefying. The contact with liquid propylene creates the effect of freezing / frostbite of the affected tissue due to rapid evaporation.

Asphyxia occurs when propylene replace the air from the work area. Therefore you must take care to local accumulations of propylene product in the air. Decreasing of the oxygen concentration is leading to manifestations such as dizziness, nausea, rapid breathing, unconsciousness or death. Product storage should be done following the indicated procedure. Do not allow smoking in areas where risk of propylene vapor presence is possible.

Propylene is reacting with the oxidizing agents and with nitrogen dioxide forms highly unstable compounds.

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Fire hazard

Propylene is a highly inflammable product and with the air is making explosive mixtures, if the propylene concentration achieves values between 2 and 11.1%. The gas is more weight than the air and can move on the ground level due to the currents. So, may come into contact with ignition sources at distance from the leaking place. Therefore it has to be handled and stored avoiding contacts with open flames, sparks, warm surfaces or other ignition sources. While burning, it releases carbon monoxide, carbon dioxide, and low quantities of hydrocarbons.
In case of fire, is recommended to stop the gas leakage before fire extinction. Fire extinction, while is permitted the accumulation of the gas in the air, may lead to achievement of the explosion limits with worst consequences than the initial fire.
For intervention, the fire fighters must use self-contained breathing apparatus.

Recycling

Propylene is not a recyclable material.

Disposal

Disposal of any wastes should respect all national and local valid regulations. In industrial units, the procedure is to burn the product in flare.

The mission assumed by Rompetrol Refining is to build a strong partnership supplier/customer. Assuming this purpose, Rompetrol Refining intents to offer products of high quality for satisfaction of all customers' needs and expectations, to develop new products for existing or potential markets. Rompetrol Refining recognizes community concerns regarding his potential impact activity on the environment and therefore encourages his customers to review their processes from the human health and environment point of view. In order to prevent using the products in manners for which they are not intended or tested, Rompetrol Refining offer to its customers product literature, including suitable Material Safety Data Sheet, that should be consulted prior to use its products.

NOTE: We do not undertake any responsibility or liability for using Rompetrol Refining *products for other purposes than the ones recommended in this standard specification. It is the customer's responsibility to inspect and test our products in order to assure himself as to their suitability for his intended use.*

The integrated management system is certified by DNV according to standards:

- *ISO 9001*
- *ISO 14001*
- *ISO 45001*
- *ISO 50001*

The RQC Laboratory is accredited by RENAR according to SR EN ISO / IEC 17025.

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