 PETROHEMIJA FSK Elemir Synthetic Rubber Factory	INPUT MATERIAL SPECIFICATION	Code: BP0402-SC085 Issue: 7 Page: 1 of 3
Name: METHANOL (METHYL ALCOHOL)		

1. SUBJECT AND PURPOSE OF THIS SPECIFICATION:

This specification defines required properties of **METHANOL (METHYL ALCOHOL)** which is used in the MTBE production process at FSK – Elemir, and it serves as a basis for establishing the input material quality compliance with the specified requirements, i.e. as acceptability criteria.

2. APPLIED IN:

Purchasing Department
 Production Planning
 SBR Production
 FSK Quality
 FSK Laboratory Dept.
 FSK Logistics Office

3. REFERENCES TO OTHER DOCUMENTS:

MP0600-PR001 IMS Document Control Procedure
 BP0300-PR01 Purchasing Procedure
 BP0402-PK457 FSK Inspection and Test Plan for Input Raw Material and Chemicals
 Standards / Methods:
 ASTM E203, ASTM D1613, ASTM D1363, ASTM D1722, ASTM
 D1209, ASTM E346, ASTM D1078, ASTM D5453, ASTM D1353,
 ASTM D4052
 FSK internal methods: GH-MI-5, 1.01.03, 1.01.08.

4. MADE BY: Senior Basic Production Engineer, Head of Laboratory Department,




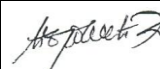

5. CONTROLLED BY: Chief Quality Engineer / Assistant Production Manager,


6. APPROVED BY: Synthetic Rubber Factory Manager

7. THIS SPECIFICATION IS TO BE DELIVERED TO:

Hard copy:

Production Dept. Manager (1x)
 Quality and Standardization Dept. Manager (1x)
 Purchasing Dept. Manager (1x)
 Production Planning Manager (1x)
 FSK Manager / Chief Quality Engineer (1x)
 Assistant Production Manager/ Senior Basic Production Engineer
 Head of Laboratory Department

	Made by:		Controlled by:		Approved by:	Applied since	Copy No
Position:	Senior Basic Production Engineer	Head of Lab. Dept.	Chief Quality Engineer	Assist. Product. Manager	FSK Manager	16.03.2020.	
Name:	B. Borić	M. Saravolac	B. Jolović	K. Petrović	S. Petrić		
Signature:							

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8. TECHNICAL PROPERTIES




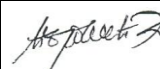

Cas No. 67-56-1
EC No. 200-659-6


Table 1 shows the specified technical properties of METHANOL (CH_3OH) which are necessary to be checked before delivery acceptance, in accordance with the FSK Inspection and Test Plan for Input Raw Materials and Chemicals (BP0402-PK457).

Table 1

Ord. No.	PROPERTY	METHOD	UNIT	RANGE OF ALLOWABLE VALUES
1.	Methanol content	FSK int. GH-MI-5	wgt %	min 99,85
2.	Alkalines content (like NH_3)	ASTM D1614	ppm	max 3
3.	Water content	ASTM E 203	wgt %	max 0,1
4.	Free acids content (as CH_3COOH)	ASTM D 1613	wgt %	max 0,002
5.	Total soluble iron	ASTM E 394	ppm	max 0,15
6.	Aldehydes and ketones content (as CH_3COCH_3)	FSK int. 1.01.03.	wgt %	max 0,003
7.	Ethanol content	IMPCA 004*	wgt %	max 0,001
8.	Permanganate test	ASTM D 1363*	minute	min 50
9.	Chloride content	FSK int. 1.01.08.	g/l	max 0,001
10.	Mixing with water (hydrocarbons)	ASTM D 1722		none
11.	HAZEN Colour	ASTM D 1209	HAZEN	max 5
12.	Test with H_2SO_4 – HAZEN	ASTM E 346	HAZEN	max 50
13.	Distillation range	ASTM D 1078 *		max 1°C $64.6 \pm 0.1^\circ\text{C}$
14.	Sulphure content – total	ASTM D 5453 *	g/l	max 0,001
15.	Evaporation residue	ASTM D 1353 *	wgt %	max 0,001
16.	Volumetric mass	ASTM D 4052 *	kg/m^3	791 – 793
17.	Appearance	Visual		Clear, colorless liquid without presence of suspended matters

*Upon request testing can be made out of FSK premises

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Name:	B. Borić	M. Saravolac	B. Jolović	K. Petrović	S. Petrić		
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9. DELIVERY AND PACKAGING:

9.1. FORM (STATE) OF INPUT MATERIAL: liquid

9.2. DELIVERY: tank cars

9.3. TRANSPORT: tank trucks or wagons

9.4. ALTERNATIVE DELIVERY AND/OR PACKAGING: None

10. MARKING AND ACCOMPANYING DOCUMENTS

Each packaging unit must have clearly written data as follows:

- Product name
- Manufacturer's data (Company name)
- Lot number
- Packaging unit net mass
- Production date
- Expiry date

Each lot of a single delivery must be accompanied by the following documents:

- test report
- safety data sheet (plus storage instruction if available)
- delivery note

11. CRITERION FOR ESTABLISHING PRODUCT ACCEPTABILITY

11.1 QUALITY CONFORMITY TO REQUIREMENTS

A product conforms to the requirements if its properties are within the allowable tolerances in all the points, and if all the requirements of this specification are fulfilled.

11.2 CONSISTENT QUALITY DELIVERIES

Input material delivery must comply with the approved sample for purchasing. A sample for purchase approval is inspected in accordance with the FSK Inspection and Test Plan for Input Raw Materials and Chemicals.

The supplier is obliged to submit information about any modification(s) in its production process and change(s) referring to its production location, as well as to deliver samples produced under the new conditions.

After documents and samples inspection is completed the Synthetic Rubber Plant shall issue an approval for input material application and deliveries.

11.3 CRITERION FOR ACCEPTABILITY

The criterion for delivery acceptance shall be satisfied if the inlet inspection certifies quality and quantity as stated in the accompanying documents and if all the requirements of this specification are fulfilled.

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Name:	B. Borić	M. Saravolac	B. Jolović	K. Petrović	S. Petrić		
Signature:	