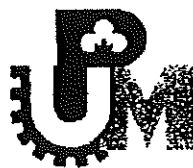


# UZPROMMASHIMPEKS

Davlat Aksiyadorlik Tashqi  
Savdo Kompaniyasi



State Joint Stock Foreign  
Trade Company

O'zbekiston Respublikasi, 100077, Toshkent,  
Buyuk Ipak Yo'li ko'chasi, 75.  
Tel: (99871) 2385457, Faks: (99871) 2385458

75, Buyuk Ipak Yuli str., Tashkent,  
100077, Republic of Uzbekistan.  
Phone: (99871) 2385457, Fax: (99871) 2385458

To whom it may concern

Dear Sirs,

Hereby kindly find our commercial offer for chemical products of uzbek origin.

No	Description of goods	Price
1	Ammonium nitrate, GOST 2-85E in polypropylene bags (50+1)kg	154 US\$/tn
2	Ammonium sulphate TSh .6.1-00203849-13:1999 in polypropylene bags (50+1)kg	165 US\$/tn
3	Commercial-Grade Liquid Ammonia GOST 6221-90, rev.1	400 US\$/tn
4	Commercial- Grade Hydrous Ammonia GOST 9-92	100US\$/tn
5	Colored Polyacrylonitrile Staple Fiber and Tow of Woolen Type TSh 6.1-00203849-97:2003, TSh 6.1-00203849-75:2001 (acrylic fibre) Raw white & Dyed	1100 US\$/tn Raw white
6	Poliacrylonitrile Yarn TSh 6.1-00203849-70:1998 200/2 & 32/2	2.95 US\$/1kg
7	Non-Woven Cloth TU Uz 6.1-17-98	1,00 US\$/m
8	Gaseous Technology Oxygen TSh 6.1-00203849-69:1998	7,5 US\$/balloon
9	Acetylene Pirolised Dissoluted Technological TU Uz. 6.1 - 44 - 95	33 US\$/balloon
10	Liquid Carbon Dioxide (CO <sub>2</sub> ) GOST 8050-85, rev.1	150 US\$/tn
11	Synthetic Acetic Food Acid (99,5±0,5)% TSh 6.1-00203849-08:2004	600 US\$/tn
12	Polyacrylamide Industrial Gel of «Ammonia» make TU Uz.6.1-64-97	1500 US\$/tn
13	Preparation K-4 (water-soluble polymer) TU Uz.61-53-95	300 US\$/tn
14	Flocculant PAA-GS TSh 6.1-00203849-29:1994	2450 US\$/tn
15	Synthetic Hydrochloric Acid of commercial grade GOST 857-96	150 US\$/tn
16	Acetic aldehyde, TSh 6.1 00203849 100:2008., in Buyer's bulks	1010 US\$/tn
17	Methanol of commercial grade, TSh 6.1-00203849-80:2002	325 US\$/tn
18	Gaseous argon of commercial grade GOST 10157-79	33 US\$/balloon
19	Formaldehyde of commercial grade GOST 1625-89	420 US\$/tn
20	Liquid chlorine GOST 6718-93 in bulks	140 US\$/tn
21	Universal flocculant «Unifloc», TSh 6.1-00203849-43:1995	2300 US\$/tn
23	Nitrile of Acrylic acid (Acrylnitrile) TSh 6.1.-00203849-09:1995	1700 US\$/tn
24	Acrylic emulsion TU Uz.6.1-14-94	3520 US\$/tn
25	Ammonium chloride	280US\$/tn

Prices are indicated for FCA Navoi delivery term.  
Technical specifications are attached.

With best regards,  
SJSC "Uzprommashimpeks"  
Phone: (99871)238-54-43/27  
Fax : (99871) 238-54-58  
email: marketing@upm.uz , umida@upm.uz  
www.upm.uz

# AMMONIUM NITRATE

## AUSS 2-85 rev. ver.1, 2, 3

Formula:  $\text{NH}_4\text{NO}_3$

Ammonium nitrate is used as a mineral fertilizer for agriculture and other branches of industry.

### *Technical indexes*

Characteristics	Standard for				
	A	B			
		superior	1 <sup>st</sup> grade	2 <sup>nd</sup> grade	
1.State and color	grained product free of mechanical impurities				
2.Fraction of total mass of nutrients recalculated to					
➤ ammonium nitrate, in dry substance, %, no less than	98	doesn't stand			
➤ nitrate in dry substance, %, no less than	doesn't stand	34,4	34,4	34,0	
3.Mass fraction of water, %, no more than, determined drying	0,3	0,3	0,3	0,3	
4.Mass fraction of additions recalculated to dry substance:					
➤ nitrates of Ca and Mg, recalculated to $\text{CaO}$ , %	0,2 – 0,5	0,2 – 0,5	0,2 – 0,5	0,2 – 0,5	
5.pH of 10% aqueous solution, no less than	5,0	5,0	5,0	5,0	
6.Mass fraction of non-soluble matters in 10% solution of nitric acid, %, no more than	0,2	doesn't stand			
7.Grain-size analysis:					
Mass fraction of grains from 1 up 3 mm, %, no less than	93,0	doesn't stand			
Mass fraction of grains from 1 up 4 mm, %, no less than	doesn't stand	95	95	95	
including	grains from 2 up 4 mm, %, no less than	doesn't stand	80	50	doesn't stand
	mass fraction of grains from 1, %, no less than	4	3	3	4
	residue on sieve 6 mm, %	absence			
8.Friability, %, no less one	100	100	100	100	

### *Packing and transportation*

Ammonium nitrate is packed in polyethylene bags.

The product can be transported in bulk mass by special transport for minerals or by hoppers.

Ammonium nitrate is transported by covered tank cars and rail-way tankers.

*Guaranteed storage life of the product are 6 months since the day of it's production.*

**GASEOUS ARGON**  
**GUSS 10157-79 rev. ver.1, 2, 3**

Formula: Ar

Argon is used as environment protection at metal refinement, for welding, cutting, smelting.

***Technical indexes***

<b>Characteristics</b>	<b>Standard</b>	
	<b>the highest sort</b>	<b>the first sort</b>
1. Mass fraction of argon, %, no less than	99,993	99,987
2. Mass fraction of oxygen, %, no more than	0,007	0,002
3. Mass fraction of nitrogen, %, no more than	0,005	0,01
4. Mass fraction of water fumes, %, no more than Corresponds to saturation temperature of argon by water fumes at 101.3kPa pressure, °C, no higher than	0,0009 minus 61	0,001 minus 58

***Packing and transportation***

Gaseous argon is poured in steel balloons under pressure and transported by any transports.

*Guaranteed storage life of gaseous argon are 18 months since the day of its production.*

**ACETYLENE PIROLYSED  
DISSOLUTED TECHNOLOGIAL  
TSh 6.1-00203849-44:1995 rev. ver. 1, 2**

Formula:  $C_2H_2$

Commercial-grade pyrolyous dissolved acetylene finds its application in flame machining of metals, feed for illumination installation, laboratory works.

***Technical indexes***

Characteristics		Standard
1. Mass fraction of acetylene and diens, %, of volume, no less than		99,1
including	> mass fraction of methylacetylene, %, volume, no less than	0,15
	> mass fraction of diacetylene, % of volume, no less than	0,003
2. Mass fraction of inert-air and dioxide carbon, % volume, % no more than		0,9
3. Mass concentration of water steams at 20°C and 0,1 mPa, g/nm <sup>3</sup> , no more than		0,6 minus 23

**Reference:** at storage of bottles with acetylene more 15 days it is assumes mass fraction air inserts and dioxide carbon no more 1,3%.

***Packing and transportation***

***Guaranteed storage life are 6 months since the day of its production.***

**COLOURED POLYACRYLONITRILE STAPLE  
FIBER AND TOW OF WOOLEN TYPE  
TSh 6.1-00203849-97:2003 rev. ver. 1, 2**

Coloured polyacrylonitrile staple fiber and tow intended for woolen industry and knitted goods.

Manufacture type of staple fiber and tow	Mark	Nominal, line density, tex		Nominal length of staple fiber, mm
		fiber	tow	
1. Shing and bleching staple fiber and tow, coloured by surface method, twisted	H-1	0,33	53000 106000	28; 37; 51; 58; 60; 65; 70; 75; 95; 95; 102; 120
		0,56; 0,68; 0,8	55500	
2. Shing and bleching staple fiber and tow, twisted	H-3	the same	the same	the same
3. Shing and bleching staple fiber and tow, twisted	H-4	the same	the same	the same

**Technical indexes**

Characteristics	Standard for grades	
	1 <sup>st</sup> grade	2 <sup>nd</sup> grade
1. Unit breaking load of fiber, mN/tex, no less than		
0,33 tex	235	220
0,56 tex	190	170
0,68; 0,8; 0,89 tex	170	160
2. Elongation of fiber at rupture, %	30 – 50	30 – 50
3. Unit breaking load of fiber at rupture of loops, mN/tex, no less than		
0,33 tex	70	55
0,56 tex	60	40
0,68; 0,8; 0,89 tex	55	40
4. Deviation of fiber actual linear density from nominal, %, no more than	±7,0	±9,0
5. Deviation of actual density of tow from nominal, %, no more than	±7,0	±9,0
6. Deviation of actual linear density of tow from nominal, %, no more than	±7,0	±9,0
7. Number of crimps per 10 mm	3,0 – 4,5	3,0 – 4,5
8. Linear shrinkage, %	3,0 – 7,0	не более 8,0
9. Mass fraction of oil, %, antistatic agent, %	0,25 – 0,80	0,25 – 0,80
10. Actual humidity, % for linear density	1,0 – 4,0	1,0 – 4,0
11. Fraction of total mass of solvent (Rhodanate natrium), no more than	2,0	2,0

12. Whiteness of fiber, %, no less than, for line density 0,33; 0,56 tex	70,0	70,0
0,68; 0,8; 0,89 tex	65,0	65,0
13. Mass fraction of solvent (Rhodanate natrium), %, no more than	0,1	0,1
14. Cluing together, %, no more than	0,03	0,06
15. Coarse fibers, %, no more than	0,1	0,2
16. Uncut fibers, %, no more than	0,04	0,01
17. Mass fraction of braking talus, %, no more than	0,1	0,2
18. Color of varied shades	according to the pattens	

### ***Packing and transportation***

Staple fiber is formed in bales and packed in packing materials from fabric or polyethylene film. The tow is packed in cardboard boxes.

Staple fiber and tow are transported by all kinds of transports.

***Guaranteed storage life of the product are 6 months since the day of its production.***

**GASEOUS AND LIQUID  
CARBON DIOXIDE  
AUSS 8050-85 rev. ver. 1,2**

Formula: CO<sub>2</sub>

Carbon dioxide is manufactured of two types: *liquid carbon dioxide of low temperature and gaseous carbon dioxide of high pressure.*

Carbon dioxide is used for making shielding medium under welding metals, on production of carbonated beverages, dry ice, for cooling, freezing and storage food, on drying, fire-fighting and other aims in all branches of manufacture.

***Technical indexes***

Characteristics	Standard		
	superior	1 <sup>st</sup> grade	2 <sup>nd</sup> grade
1. Volume fraction of carbon dioxide, (CO <sub>2</sub> ), %, no less than	99,8	99,5	98,8
2. Volume fraction of carbon oxide, (CO)	stands the test		
3. Mass concentration of petroleum oils and mechanical impurities, mg/kg, no more than	0,1	0,1	stands the test
4. Mass fraction of water, %, no more than	absence		0,1

***Packing and transportation***

Gaseous and liquid carbon dioxide is delivered in tanks under pressure:

- in cylinders up 50 dm<sup>3</sup> in capacity;
- in gas-bags for domestic no less than 0.01 dm<sup>3</sup> in capacity\$
- in package of another type for road transport.

***Guaranteed storage life of carbon dioxide:***

- *in tank cars are two years since the day of its produce;*
- *in tank cars are six months since the day of its production.*

**GASEOUS TECHNOLOGY OXIGEN**  
**TSh 6.1-00203849-69:1998 rev. ver.1, 2**

Formula: O<sub>2</sub>

The product is used for flame machining of non-ferrous metals of light alloys and also for intensification of metallurgical processes.

***Technical indexes***

Characteristics	Standard
1. Volume fraction of oxygen, %, no less than	95,0
2. Mass concentration of water vapors, no more than	0,009

***Packing and transportation***

Transportation of the product is carried out in steel bottles by any transport.

***Guaranteed storage life of the product is one year since the day of it's production.***



**SYNTHETIC HYDROCHLORID ACID  
OF COMMERCIAL GRADE  
AUSS 857-95**

Formula: HCl

This product is used in chemistry, nonferrous and iron-and-steel industry.

***Technical indexes***

Characteristics	Standard
1. State and color	transparent colorless or yellow liquid
2. Mass fraction of hydrogen chloride, %, no less than	31,5
3. Mass fraction of iron (Fe), %, no more than	0,015
4. Mass fraction of residue after calcinations, %, no more than	0,100
5. Mass fraction of free chlorine, %, no more than	0,008
6. Mass fraction of arsenic, %, no more than	0,0002
7. Mass fraction of ртути, %, no more than	0,0005

***Packing and transportation***

Synthetic hydrochloric acid of commercial grade is transported in special gummer tanks, polyethylene barrels, glass bottles and transported by any transport.

*Storage life of the product is unlimited.*

***SYNTHETIC ACETIC FOOD ACID (ESSENCE)***  
***TSh 6.1-00203849-08:2004 rev. ver.1, 2***

Formula:  $\text{CH}_3\text{COOH}$

Synthetic acetic food acid intended for retail trade and enterprises of food industry, fruit, vegetables and fish preservation.

***Technical indexes***

Characteristics	Standard	
1. State and color	transparent colorless liquid free of mechanical impurities	
2. Mass fraction of acetic acid, %	99,5 ± 0,5	70,0 ± 1,0
3. Mass fraction of nonvolatile residue, %, no more than	0,008	0,008
4. Stability to potassium manganese solution concentration 0,1 mol/cdm, min, no less than	60	60
5. Stability to potassium manganese solution concentration 0,1 mol/cdm, min, no less than	60	60
6. Mass fraction of sulphates, % no more than	0,0002	0,0002
7. Mass fraction of heavy metals (Pb), % no more than	0,00008	0,00008
8. Mass fraction of iron, % no more than	0,0001	0,0001
9. Mass fraction of organic matters recalculated to formic acid, % no more than	0,1	0,1
10. Mass fraction of chlorides, % no more than	0,0001	0,0001

***Packing and transportation***

Synthetic acetic acid is filled into special bottles and special rail tanks.  
Acetic food acid is transported by any transport.

***Guaranteed storage life of the product is one year since the day of it's production.***

**COMMERCIAL-GRADE  
LITHIUM CARBONATE  
TSh 6.1-86:2001**

Formula:  $\text{Li}_2\text{CO}_3$

It is used as an intermediate product for synthesis various joint lithium, as additive in ferrous metallurgy, in production of special glasses and other industry branches.

***Technical indexes***

Characteristics	Standard
1.State	crystallize powder of white color
2.Mass fraction of lithium carbonate, %, no less tahn	93,0

***Packing and transportation***

This product is packed in paper bags with polyethylene insert and transported by any transport.

***Guaranteed storage life of the product are 3 years since the day of it's production.***

# **TECHNICAL METHANOL**

## **TSh 6.1-00203849-80:2002**

Formula: CH<sub>3</sub>OH

Technical methanol is used in national economy.

### ***Technical indexes***

<b>Characteristics</b>	<b>Standard</b>
1. Outward appearance	transparent colorless liquid free of impurities
2. Density g/cm <sup>3</sup>	0,791 – 0,792
3. Mass fraction of water, %, no more than	0,08
4. Mass fraction free acids recalculated on methanol, %, no more than	0,0015
5. Mass fraction of ketone and aldehyde recalculated on acetone, %, no more than	0,008

### ***Packing and transportation***

Methanol is poured in special railway tanks, auto tanks and steel barrels.

Methanol is transported in accordance with all the international transportation regulations.

*Guaranteed storage life of the product are six months since the day of it's production.*

**CAUSTIC SODA**  
**(NAOH)**  
**TSh 6.1-00203849-92:2003**

Formula: NaOH

Caustic soda is used in chemical oil-chemical industry, and other branches of national economy.

***Technical indexes***

Characteristics	Standard	
	first sort	second sort
1. State	colourless transparent liquid	
2. Mass fraction of natrium hydroxide, %, no less than	30,0	30,0
3. Mass fraction of natrium carbon dioxide, %, no less than	0,5	1,0
4. Mass fraction of natrium chlorine, %, no more than	0,05	0,5
5. Mass fraction of iron in terms of Fe <sub>2</sub> O <sub>3</sub> , %, no more than	0,0015	doesn't norm
6. Mass fraction of natrium sulphate, %, no more than	0,03	doesn't norm
7. Mass fraction of NaClO <sub>3</sub> , %, no more than	0,01	doesn't norm

***Packing and transportation***

Caustic soda is poured in railway tanks and barrels.

This product is transported by railway, auto and water transports in according with transportstion rules.

***Guaranteed storage life of the product is one year since the day of it's production.***

# **ACRYLONITRILE TECHNICAL**

## **TY Y<sub>3</sub> 6.1-09-95**

Formula:  $\text{NCH}_2 = \text{CH-CN}$

Acrylonitrile is intended in national economy.

### ***Technical indexes***

<b>Characteristics</b>	<b>Standard</b>
1. State	transparent liquid without content mechanical impurity
2. Density 20°C, g/cm <sup>3</sup>	0,800 – 0,806
3. Index of refraction at 20°C	1,39 10 – 1,39 20
4. Mass fraction of divinylacetylene, %, no more than	0,0015
5. Mass fraction of acetaldehyde, %, no more than	0,01
6. Mass fraction of hydrocyanic acid, %, no more than	0,002
7. Mass fraction of copper, %, no more than	0,00001
8. Mass fraction of peroxide in terms of hydrogen peroxide, %, no more than	0,00002
9. Mass fraction of water, %, no more than	1,5
10. Mass fraction of iron, %, no more than	0,00002
11. Mass fraction of stabilizator, %, including	
ammonia	0,008 – 0,012
hydroquinone	0,01 – 0,10

### ***Packing and transportation***

Acrylonitrile is steel barrels and special railway and auto tanks. It is transported by railway or autotransport..

***Guaranteed storage life of the product are 3 months since the day of it's production.***

## ***POLYACRYLAMIDE INDUSTRIAL GEL*** ***of «Ammonia» mark TU Uz. 6.1-64-97***

Polyacrylamide gel is used as a flocculant gold extractive coal, chemical, woodpulp-cellulose, oil, miningchemical, textile industries, in agriculture and cleaning of agricultural water supply.

### ***Technical indexes***

Characteristics	Grade		
	superior	1 <sup>st</sup> grade	2 <sup>nd</sup> grade
1. Mass fraction of base material < %, no less than	6	6	5
2. Cinematic viscous of solution of polyacrylamide gel with mass fraction of 0,25% in solution of sodium chloride with mass fraction of 3% at 30°C, mm <sup>2</sup> /c, no less than	4,6	3,0	2,2
3. Speed of precipitation of cooper oxide, mm/c, no less than	12	8	4
4. Mass fraction of residual monomers recalculated to 1% of base material, %, no more than:			
➤ acrylamide	0,004	0,004	0,004
➤ sum of unlimited compounds recalculated to acrylamide	0,025	0,025	0,025

### ***Packing and transportation***

Polyacrylamide gel is packed in double polyethylene bags or metal containers and transported by rail, automobile or river transport.

***Guaranteed storage life of the product are 6 months since the day of it's production.***

**NON-WOVEN CLOTH**  
**TSh 6.1-00203849-17:1998 rev. ver.1**

Manufactured from nitron fiber and represents repeatedly formed web, pierced with needles of special construction in the needle machine.

Non-woven cloth is used as a sealing material for manufacturing of furniture, clothes and for selling of the consumer goods.

***Technical indexes***

Characteristics	Standard
1. Width of cloth, cm	150 ± 5
➤	160 ± 5
➤	170 ± 5
2. Aerial density, g/m <sup>2</sup>	
➤	170 ± 17
➤	215 ± 20
➤	280 ± 28
➤	350 ± 30
3. Irregularity on mass, %, no more than	·12
4. Breaking load of cloth, daH, no less than	
➤ along the length	2
➤ along the width	3

***Packing and transportation***

The products is manufactured in rolls.

Non-woven cloth is transported by any transport.



**PREPARATION K-4**  
**WATER-SOLUBLE POLYMER**  
**TSh 6.1-00203849-53:1995 rev. ver.2**

Preparation K-4 is water-soluble polymer is used for lowering of water loss and stabilization of clayey solutions in drilling technology, in agriculture as a soil structural former for lodging of suspended particles in setting basins and water storage as a glue in printing industry, for fight against dust formation in metallurgy industry and in area for waste as a flocculant against moving sand and etc.

***Technical indexes***

Characteristics	Standard
1. State	look-like a jelly viscous mass is from yellow to dark-brown color
2. pH of 10% solution of the preparation K-4 with mass fraction	10 – 12
3. Cinematic of the preparation K-4 of solution with mass fraction of 10%, mg/c, no less than	$40 \times 10^{-6}$
4. Mass fraction of water, %, no more than	90
5. water loss, cm <sup>3</sup> , no more than	3

***Packing and transportation***

Preparation K-4 is poured into steel barrels, steel bumps, rail-way tanks and tank cars. The product is transported by any kind of transport.

***Guaranteed storage life of the product are 6 months since the day of it's production.***

## **PREPARATION «UNIFLOCK»**

**TY Y<sub>3</sub> 6.1-43-95 rev. ver.1**

This preparation is water-soluble polymer. It's a powder, produced by polymerization acrylic acid in sour environment at presence of initiator with the next saponification of polymer by caustic sodium.

Preparation «Uniflock» is used to water loss reduce and stabilization of clayey solution, for filtration supply and precipitation any pulps.

### ***Technical indexes***

<b>Characteristics</b>	<b>Standard</b>
1. Appearance	powder of yellowish cream and pink colored
2. Bulk density, g/cm <sup>3</sup>	1,0 – 1,2
3. Fraction of total mass of water, %, no more than	10
4. Fraction of total mass of non-dissolved residue, %, no more than	5
5. Characteristic of clayey solutions with addition preparation «Uniflock» fraction of mass – 0,5%	
Specific viscosity, sec, no more	30
Filtrate pH, no more	10
Water loss	7

### ***Packing and transportation***

Preparation «Uniflock» is packed in double polyethylene bags for 30 kg and transported by any transport.

***Guaranteed storage life of the product is one year since the day of it's production.***

**AMMONIUM SULPHATE**  
**TSh 6.1-0203849-13:1999 rev. ver.2**

Formula:  $(\text{NH}_4)_2\text{SO}_4$

Ammonium sulphate is used as fertilizer in agriculture.

***Technical indexes***

<b>Characteristics</b>	<b>Standard</b>
1. State and color	transparent crystals
2. Mass fraction of nitrogen recalculated to dry substance, %, no less than	21
3. Mass fraction of water, %, no more than	0,3
4. Mass fraction of free sulphuric acid, %, no more than	0,05
5. Mass fraction of insoluble impurities, %, no more than	0,04
6. friability, %	100

***Packing and transportation***

Ammonium sulphate is transported by bulk in rail hoppers and motor transport with shelters.

In shipment of sulphate by bulk should be stipulated conditions excepting pouring out of the product from wagons and automobile transport.

***Guaranteed storage life of the product are 6 months since the day of it's production.***

**THIOUREA**  
**OF COMMERCIAL GRADE**  
**TSh 6.1-00203849-12:1999 rev. ver.1**

Formula:  $\text{CH}_4\text{N}_2\text{S}$

Thiourea is used as a floated reagent of metals, manufacture of mercaptans, dyes synthetic resins and so on.

***Technical indexes***

<b>Characteristics</b>	<b>Standard</b>
1. State and color	crystals of white, yellow or grey color
2. Mass fraction of thiourea recalculated to dry product, %, no less than	95,0
3. Mass fraction of ammonium rhodanate, %, no more than	1,5
4. Mass fraction of loss under drying, %, no more than	5,0
5. Mass fraction of non-solutes in water, %, no more than	0,2

***Packing and transportation***

Thiourea is packed in polypropylene bags with polyethylene inserts.  
It can be transported by any transport.

***Guaranteed storage life of the product is one year since the day of it's production.***

# **FLOCCULANT PAA-GS**

## **TSh 6.1-00203849-29:1994 rev. ver.1, 2, 3**

Flocculant PAA-GS represent as a technical product, which consists of mixture of polyacrylamide with sulphate ammonia.

The product is used as a aqueous solution for flocculation of suspension in the minig, chemical, cokchemical and cellulosepaper industries, drinking and industrial water-supply.

### ***Technical indexes***

<b>Characteristics</b>	<b>Standard</b>	
	<b>«A» mark</b>	<b>«B» mark</b>
1. State	гранулы неправильной формы желтоватого или коричневатого цвета	
2. Mass fraction of insoluble residue, %	отсутствие	1
3. Mass fraction of water, %, no more than	10	9
4. Mass fraction of ammonium sulphate, %, no more than	34	40
5. Mass fraction of polymer in the commodity product, %, no less than	56	50
6. Viscosity ratio of 0,1% aqueous solution at pH 7-8, m <sup>2</sup> /c, no less than	$1,7 \times 10^{-6}$	$1,6 \times 10^{-6}$

### ***Packing and transportation***

Flocculant PAA-GS is packed in paper polypropylene and polyethylene bags.  
The product is transported by any covered transport.

***Guaranteed storage life of the product is one year since the day of it's production.***

**TECHNICAL PHORMALINE**  
**OF FM MARK**  
**AUSS 1625-89**

Phormaline is hydromethanol solution of formaldehyde intended for agriculture and export.

***Technical indexes***

Characteristics	Standard for	
	высший сорт	I сорт
1. Outward appearance	Etransparent colorless liquid. During keeping there can be white sediment, wich is soluted in the temp of 40°C	
2. Mass fraction of phormaldehyde, %	37,2 ± 0,3	37,0 ± 0,5
3. Mass fraction of methanol, %	4 – 8	4 – 8
4. Mass fraction recalculated on methanol, %, no more than	0,02	0,04
5. Mass fraction of iron, %, no more than	0,0001	0,0005
6. Mass fraction of reside after calcinations, %, no more than	0,008	0,008

***Packing and transportation***

Technical phormaline of FM mark is poured in railway or auto tanks, polyethylene full cans or barrels.

Technical phormaline is transported by train and automobile in covered carriages.

***Guaranteed storage life of the product are 3 months since the day of it's production.***

# **LIQUID CHLORINE**

## **AUSS 6718-93**

Formula: Cl<sub>2</sub>

Liquid chlorine is used for production bleaching substances, salt, chlororganic combination, also for clearing and sterilization of drinking water.

### ***Technical indexes***

Characteristics	Standard for	
	высший сорт	I сорт
1. Volumeric share of chlorine, %, no less than	99,8	99,6
2. Mass share of water, %, no more than	0,01	0,04
3. Mass fraction of 3 chloride nitrogen, %, no more than	0,002	0,004
4. Mass fraction of unvalotide residue, %, no more than	0,015	0,10

### ***Packing and transportation***

Liquid chlorine is poured in special containers, balloons of small and average volume. This product is transported by railway, water and auto transport in according with transportation rules.

***Guaranteed storage life of the product is one year since the day of it's production.***

**ACRYLIC EMULSION**  
**TSh 6.1-00203849-14:1994 rev. ver.1, 2, 3**

Acrylic emulsion is a product of polymerization of acrylic acid. It is used in skin, printing and varnish painting industry, in producing carpets, floor covering, water emulsion paints.

***Technical indexes***

<b>Characteristics</b>	<b>Standard</b>
1. Appearance	Milk-white color liquid without visible stratification
2. Fraction of total mass of non-flying substances, %, no less than	20
3. Fraction of total mass of residual monomer (methylacrilate), %, no more than	0,35
4. pH	6,0 – 8,5
5. Relatively viscosity, no less than	1,75

***Packing and transportation***

Acrylic emulsion is flooded in steel or polymer barrel (capacity 200 cdm) and transported by any transport.

***Guaranteed storage life of the product are 3 months since the day of its produce in steel container and 6 months in polymeric container.***



# **ACETIC ALDEHYDE TECHNICAL**

## **TSh 6.1-00203849-100:2008**

Formula:  $\text{CH}_3\text{CHO}$

Acetic aldehyde is intended in producing of acetic anhydride, acetic acid, pentacnythum and other products.

### ***Technical indexes***

<b>Characteristics</b>	<b>Standard</b>	
	<b>superior sort</b>	<b>first sort</b>
1. Colour, platinum-cobalt seale units, no more than	15	30
2. Mass fraction of acetic aldehyde, %, no less than	99,7	99,6
3. Mass fraction of acetic acid, %, no more than	0,04	0,1
4. Mass fraction of water, %, no more than	0,1	0,2
5. Mass fraction of croton aldehyde, %, no more than	0,03	0,05
6. Contents af acetylene	absence	absence

### ***Packing and transportation***

This product is transported in special railway or autotanks, produced of carbon steel with polyisobuthylene cover of inner surface of boiler or of steel 12X18H10T mark or или 12X18H9T.

***Guaranteed storage life of the product are 3 months for the superior sort or one month for the first sort since the day of it's production.***

# COMMERCIAL – GRADE HYDROUS AMMONIA

## AUSS 9-92

Formula:  $\text{NH}_3 \cdot \text{H}_2\text{O}$

Solution of commercial grade hydrous ammonia finds its application in various industrial branches and agriculture.

It is available of two makes, depending on designated purpose:

«A» mark is for various industrial branches;

«B» mark is for agriculture as a mineral fertilizer.

### *Technical indexes*

Characteristics	Standard	
	«A»	«B»
1.State and color	transparent colourless liquid	transparent liquid, yellow shade is permissible
2.Mass fraction of ammonia, %, no less than	25	25
➤ recalculated to nitrogen, %, no less than	doesn't stand	20,5
3.Mass concentration of non volatile residue, $\text{g/dm}^3$ , no more than	0,07	doesn't stand
4.Mass fraction of Carbon dioxide, $\text{g/dm}^3$ , no more than	doesn't stand	8

### *Packing and transportation*

Solution of commercial grade is transported by railway, and auto transport

*Guaranteed storage life are 3 months since the day of its production.*

# COMMERCIAL – GRADE LIQUID AMMONIA

## AUSS 6221-90

Formula:  $\text{NH}_3$

Ammonia of commercial grade finds its application in industry of mineral fertilizers and agriculture.

There are three marks of liquid ammonia depending of its use:

«A» mark is intended for manufacturing of nitric acid, for nitration, as a cooling reagent, for creating shielding medium;

«Ak» mark is transported through pipelines;

«B» mark is pressed into nitrogen fertilizers for agriculture.

### *Technical indexes*

Characteristics	Standard for		
	«A» mark	«Ak» mark	«B» mark
1. Mass fraction of ammonia, %, no less than	99,9	99,6	99,6
2. Mass fraction of nitrogen, %, no less than	–	82	82
3. Mass fraction of water, %, by volumetric method (residue after evaporation)	–	0,2 – 0,4	0,2 – 0,4
» by Fisher method, no more than	0,1	–	–
4. Mass concentration of oil, mg/cdm, no more than	2	2	8
5. Mass concentration of iron, mg/cdm, no more than	1	1	2

### *Packing and transportation*

It can be transported in special railway tanks and car tanks.

*Guaranteed storage life of the product is one year since the day of its production.*