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Founded in 1984, 39 years of history

42

we have 42 subsidiaries

500

Top 500 Chinese enterprises
for 16 consecutive years

● Polyacrylamide professional supplier

● Product customization

● Whole process technical service

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■ How would you choose a supplier of Polyacrylamide?

- Who will produce PAM to ensure **a stable supply**?
- Who can provide the most professional **technical services** of before, during and after?
- Who will **tailor the excellent cost-effectives** products for me?
- Who could provide **OEM service** for you?

Therefore industry leaders choose us, and I believe you too!

As a supplier of Petrochina, Sinopec, CNOOC and other leading enterprises, Kechuang Bio-chem is committed to providing the products of precise formulations, obvious use effect and high cost-effectiveness, so that you can better control costs, stable supply, control quality and improve construction efficiency.



1. Anionic Polyacrylamide

The product is an ultra-high molecular weight polymer made from the copolymerization of acrylamide and acrylate. Its molecular weight is as high as 30 million or more, and it has extremely strong adsorption and bridging efficiency. Different molecular weights can be selected depending on the users different uses and requirements for product performance.

【Technical Index】

Type	Model	Molecular weight (millions)	Hydrolysis	Solid content (%)	Solubility
Low molecular	KMP-1824A	12.98	25.65%	90.05	Better
	KMP-1230	11.80	29.65%	89.56	/
	KMP-1825C	12-13	25%-26%	/	Better
Middle molecular	KMP-1824B	13.98	26.85%	90.38	Better
	KMP-1824C	14-15	24%-25%	/	Better
	KMP-1825A	14-15	24%-25%	90.07	Better
	KMP-1525	15.63	25.67%	89.65	/
	KMP-1530	15.32	29.88%	90.21	/
	KMP-1516A	16	10%-12%	/	Better
	KMP-1824D	≥19	22%-25%	/	Better
High molecular	KMP-1824E	≥19	27%-30%	/	Better
	KMP-1825	18.67	24.21%	89.63	/
	KMP-1830	18.54	30.1%	90.25	/
	KMP-2025	19.88	26.21%	90.42	/
	KMP-2030	20.02	30.32%	90.31	/
	KMP-2225	21.10	25.28%	90.07	/
	Post hydrolysis high viscosity	KMP-3035A	31	40%	88.48

【Main application】

- **Sand washing and mine dressing:**

The PH value of the water quality is mostly neutral or alkaline, and the suspended particles are relatively coarse and high in concentration. The reaction of PAM can make the sewage clear quickly and the sludge hold settle quickly. (If the sewage contains fine suspended solids, it should be used together with coagulants such as PAC or PFS) ;

- **Coal washing:**

The washed coal scum and PAM quickly react and settle to promote solid-liquid separation. In order to ensure the effect of desliming, some coal washing plants will carry out secondary dosing before entering the deslimer;

- **Starch and Alcohol Plants:**

Starch factory wastewater contains a lot of starch. Add PAM to make the starch particles flocculate and precipitate, and then recycle them after pressure filtration;

- **Tertiary oil-displacement agent:**

It can adjust the rheology of the injected water, increase the viscosity of the drive fluid, improve the water drive sweep efficiency, reduce the water phase permeability in the formation, and make the water and oil flow forward at a uniform speed. Its function is mainly used in the tertiary oil recovery of oil fields in terms of oil exploitation. For every ton of polymer polyacrylamide product injected, an additional 100-150 tons of crude oil can be recovered;

- **Drilling mud material:**

It is used as an additive for drilling mud materials in the exploration and development of oil fields and in the exploration of geology, water conservancy and coal. It can prolong the service life of the drill bit, increase the drilling speed and footage, reduce the blockage when changing the drill, and the effect of preventing well collapse is obvious. It can also be used as fracturing fluid in oil fields and water shutoff agent for profile control and water shutoff;

- **Industrial wastewater treatment:**

Especially for suspended particles, coarse, high concentration, positively charged particles, and sewage with neutral or alkaline pH value of water. The wastewater treatment of iron and steel factory, electroplating factory wastewater, metallurgical wastewater, coal washing wastewater, etc. has the best effect;

- **Drinking water treatment:**

The water sources of many waterworks in my country come from rivers, which contain high sediment and minerals and are relatively turbid. Although they have been filtered through sedimentation, they still cannot meet the requirements, and flocculants need to be added. In the past, inorganic flocculants were used in water plants, but the dosage was large, resulting in an increase in the amount of sludge, and the effect was not good. Anionic polyacrylamide

is used as the flocculant, the dosage is 1/50 of the inorganic flocculant, but the effect is several times or even dozens of times that of the inorganic flocculant. It is better to use cationic polyacrylamide in river water with serious organic pollution;

- **Paper making additives:**

In the paper industry, it can be used as a clarification agent for caustic soda, a retention aid, a filter aid, and a paper dry and wet strength enhancer;

- **Fragrance Industry:**

It has the characteristics of good solubility, high viscosity, good toughness, flammability and less smoke, non-toxic and tasteless, stable product performance, etc.

【Usage and dosage】

Dissolve with clean tap water, the dissolution ratio is usually 0.1-0.3%, the use site needs to have a dissolving tank or a dissolving pool, and a stirring device is required, the stirring speed is 60-200 rpm, and the dissolving tank and stirring device cannot be made of iron, iron ions will cause the degradation of the product, pay attention to the speed of dosing when adding the medicine, if it is added too fast, it will cause the medicine to agglomerate.

【Packaging】

According to customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5° C~30° C.

2. Cation Polyacrylamide

It is a water-soluble and linear organic polymer with high molecular weight copolymerized by cation monomer and acrylamide. It has the functions of bleaching, adsorption, turbidity removal and adhesion.

【Technical Index】

Model	Molecular weight (millions)	Degree of Ion (%)	Solid content (%)	Solubility
KMC-05A	9.52	6.5	90.47	better
KMC-10A	9.36	12.78	90.99	better
KMC-15A	10.88	18.18	91.42	better
KMC-20A	10.37	22.41	91.02	better
KMC-30A	11.29	31.79	91.23	better
KMC-40A	8.48	42.36	90.23	better
KMC-50A	8.89	53.68	90.81	better

【Main Application】

- **Municipal sewage:**

Cation polyacrylamide is currently the most widely used sewage treatment agent in municipal sewage plants, Its unique positive charge can attract and bridge with ions in sewage (generally, sewage ions are negatively charged) and quickly cause floc settlement;

- **Paper making:**

It can be used as paper dry strength agent, retention aid, and drainage aid, greatly improve the quality of paper. Save costs and increase the production capacity of paper mills;

- **Tap water plants:**

It is used as a coagulant for water treatment in waterworks that use river water as the source, with less dosage, good effect and low cost;

- **Sludge dehydration agent:**

Urban and industrial sewage is often treated by activated sludge method. Biochemical sludge is often a highly hydrophilic colloid with high organic content and is extremely difficult to dehydrate. Treated with cationic polyacrylamide, less dosage, high dehydration efficiency, easy to separate;

- **Treatment of Sewage and Organic Wastewater:**

This product is positively charged in acidic or alkaline medium, so it is extremely effective for flocculation, sedimentation and clarification of negatively charged sewage suspended particles. Such as alcohol factory wastewater, brewery wastewater, condiment factory wastewater, sugar factory wastewater, meat wastewater, beverage factory wastewater, textile printing and dyeing factory wastewater, etc. The effect of cationic polyacrylamide is several times or tens of times higher than that of anionic polyacrylamide, nonionic polyacrylamide or inorganic salt. Because this type of wastewater is generally negatively charged;

- **Oil field:**

Such as anti-clay swelling agent, acidification thickening agent, oil waste water treatment agent.

It is also widely used in the treatment of leather wastewater, dyeing wastewater, and oily wastewater to remove turbidity and bleaching it to meet the discharge standard.

【Usage and dosage】

Dissolve with clean tap water, the dissolution ratio is usually 0.1-0.3%, the use site needs to have a dissolving tank or a dissolving pool, and a stirring device is required, the stirring speed is 60-200 rpm, and the dissolving tank and stirring device cannot be made of iron, iron ions will cause the degradation of the product, pay attention to the speed of dosing when adding the medicine, if it is added too fast, it will cause the medicine to agglomerate.

【Packaging】

According to customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5° C~30° C.

3. Zwitterionic Polyacrylamide

The zwitterionic polyacrylamide is formed by copolymerization of the cationic monomer, acrylamide monomer and hydrolysis agent. The molecular chain of this product contains both positive and negatively charged zwitterionic irregular polymers Product appearance is white fine particles or powdery solid.

【Technical Index】

Exterior	Molecular weight (millions)	Solid content (%)	Degree of Cation (%)	Degree of Anion (%)	Dissolution time (min)
White particle	8-10	≧88	5-60	0-10	≧60

【Main Application】

- **Sludge dewatering agent:**

Due to the increasingly complex nature of urban sewage discharge, the requirements for sludge dewatering agents in sewage treatment are getting higher and higher. The effect of choosing zwitterionic polyacrylamide is better than that of single ionic polyacrylamide, especially for sludge dewatering in refineries and chemical plants, the effect is better;

- **Water treatment flocculant:**

For water with complex water quality or frequently changing properties, zwitterionic polyacrylamide is used as a water treatment flocculant to reduce surface tension far more than the ability of anion and cation to exist alone under the same conditions;

- **New type for oil field profile adjusting and water plugging agent.**

【Usage and dosage】

Dissolve with clean tap water, the dissolution ratio is usually 0.1-0.3%, the use site needs to have a dissolving tank or a dissolving pool, and a stirring device is required, the stirring speed is 60-200 rpm, and the dissolving tank and stirring device cannot be made of iron , iron ions will cause the degradation of the product, pay attention to the speed of dosing when adding the medicine, if it is added too fast, it will cause the medicine to agglomerate.

【Packaging】

According to customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5° C~30° C.

4. Nonionic Polyacrylamide

Nonionic PAM is formed by homopolymerization of acrylamide with high purity, good solubility and high molecular weight. This series of products are linear polymers with high molecular weight and low ion. Due to its special group, it is endowed with the functions of flocculation dispersion, thickening, bonding, film formation, gel, and stable colloidal.

【Technical Index】

Exterior	Molecular weight (millions)	Solid content (%)	Solid content (%)	Dissolution time (min)
White Powder	2-12	≅ 5	≅ 88	≅ 60

【Main application】

- **Coal Mine Washing:** It can be used for centrifugal separation of coal washing tailings, used in the precipitation and filtration of coal powder and coal slime, which can improve the recovery rate of coal powder and increase the filtration rate;
- **Textile auxiliaries:** Adding some other chemicals can be formulated into chemical size for textile sizing, which can improve adhesion, permeability and desizing performance, make textiles antistatic, reduce sizing rate, reduce sizing spots, and cloth machine breakage rate and drop;
- **Sewage treatment:** When the sewage system is acidic, it is more appropriate to choose non-ionic polyacrylamide, and use it together with inorganic flocculants such as polyaluminum and aluminum sulfate to achieve the best effect in water treatment;
- **Metallurgical miner dressing:** For example, in the flotation and smelting of zinc, manganese and copper ores, the leachate and residue can be added to PAM to improve the separation efficiency;
- **Sand control and sand fixation:** Adding a cross-linking agent at a certain concentration and spraying it on the desert to solidify and form a film to prevent and control sand;
- **Chemical grouting agent:** 9.5 parts of non-ionic polyacrylamide plus 0.5 parts of NN-methylene bisacrylamide can be used as a chemical grouting agent for water blocking in dams, foundations, tunnels, etc;

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- **Profile adjusting and water plugging agent:** Cooperate with lignocellulose and add certain chemical additives, it can be used as oilfield profile control and water shutoff agent;
 - **Soil moisturizer:** It can act as a humectant in soil water retention and sand fixation, grass planting on hillsides, tree planting, sand fixation and dust prevention;
 - **Sewage treatment agent:** It is most suitable as a flocculant when the sewage is acidic suspension, especially when used in combination with an inorganic flocculant, the water treatment effect is the best.

【Usage and dosage】

Dissolve with clean tap water, the dissolution ratio is usually 0.1-0.3%, the use site needs to have a dissolving tank or a dissolving pool, and a stirring device is required, the stirring speed is 60-200 rpm, and the dissolving tank and stirring device cannot be made of iron, iron ions will cause the degradation of the product, pay attention to the speed of dosing when adding the medicine, if it is added too fast, it will cause the medicine to agglomerate.

【Packaging】

According to customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5°C~30°C.

5. High Temperature and Salt Resistant

High Temperature and Salt Resistant PAM Product Background is a medium molecular weight terpolymer formed by copolymerization of various cationic and anionic monomers.

【Technical Index】

Model	Molecular weight (millions)	Hydrolysis	Solid content	Solubility	Viscosity	Insoluble matter	Filtration
KYZ-45	12.86	25.86%	90.15%	less	54.3%	0.08%	1.24%

【Main application】

Mainly used in petroleum industry, oil recovery, drilling mud, waste mud treatment. Treated with temperature-resistant and salt-resistant polymers to prevent water channeling, reduce frictional resistance, and improve recovery, and are widely used in tertiary oil recovery.

【Usage and dosage】

When use it in real application, PAM should be dissolved in water with 0.1-0.2% concentration. If do not use matched dissolving equipment and dosing system, should prepare diluted cans with screw pump which can transport solution to the instructed designated field. Amount dosage is adjusted according to the actual situation.

【Packaging】

According to customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5° C~30° C.

6. Polymeric Agent

Polymeric Agent is an oil displacing agent that combines the high-efficiency viscosity-increasing properties of polymers and the emulsifying properties of surfactant. It has strong emulsifying base stability, high apparent viscosity, and proper adsorption and plugging adjustment performance, which can achieve the goal of "one dose with multiple functions".

【Technical Index】

Model	Molecular weight (millions)	Hydrolysis	Solid content	Solubility	Viscosity	Insoluble matter	Emulsion water absorption
KYH-50	13.25	27.34%	89.87%	less	60.8%	0.12%	14%
KYH-80	10.63	26.49%	89.56%	medium	80%	0.14%	8%

【Main application】

Mainly used in petroleum industry, oil recovery, drilling mud, waste mud treatment. Treat with polymeric agent to prevent water channeling, reduce frictional resistance, improve recovery rate, prevent scale, corrosion, prevent formation damage, and solve the problem of difficult oil-water separation and chromatography separation in produced sewage.

【Usage and dosage】

When this product is used, it needs to be dissolved according to the ratio of 0.1%-0.3%. There needs to be a dissolving tank or a dissolving pool at the site of use, and a stirring device is required. Pay attention to the speed of dosing. Adding too fast will cause the medicine to agglomerate.

【Packaging】

According to customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5° C~30° C.

7. Acrylamide

Acrylamide is used in the oilfield injection well to adjust the water absorption profile, and the product is mixed with the initiator and the like into the high permeability zone of the injection well to polymerize into a high viscosity polymer; it is the raw material for producing poly AM. PolyAM is an important water-soluble polymer and has valuable properties such as flocculation, thickening, shear resistance, resistance reduction and dispersibility. These properties are different depending on the derivative ion. The quality of AM products produced by the company is stable and the residual content of acrylonitrile is low. Therefore, it is widely used in oil recovery, mineral processing, coal washing, metallurgy, chemical, paper, textile, sugar, medicine, environmental protection, building materials, agricultural production and other departments.

【Technical Index】

Appearance	AM concentration%	Acrylonitrile content	Acyclic Acid content%	Conductivity	PH value
White Emulsion	28-35	≤0.01	≤0.03	≤5μs/cm	6.0-8.0

【Packaging】

According to customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5° C~30° C.

8. Acyclic Acid

Acyclic Acid products are an important class of organic chemicals that can be homopolymerized by themselves or copolymerized with other vinyl monomers such as styrene, vinyl acetate, methyl Acyclic Acid, acrylonitrile, acrylamide, vinyl chloride, etc. Acyclic Acid-based resins or poly-Acyclic Acid salts of various properties are formed to form the Acyclic Acid series of chemical products.

【Technical Index】

Appearance	Acyclic Acid content%	Moisture content%	Inhibitor content ppm	Chroma APHA	Total mass fraction aldehyde%
White Emulsi	≥99.5	≤0.15	≤0.03	≤10	≤0.001

【Main application】

Acyclic Acid is mainly used in textile, chemical fiber, coating, leather, petroleum mining, adhesives, building materials, water treatment and other industries. Polycyclic Acyclic Acid salts are mainly used in industries such as superabsorbent resins, hygiene products, detergents, flocculants, food packaging materials, etc.

【Packaging】

According to customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5° C~30° C.

9. Acrylonitrile

Acrylonitrile is a colorless pungent liquid, flammable, and its vapor and air can form an explosive mixture. It is an important raw material for the manufacture of synthetic fiber (acrylic fiber), synthetic rubber (nitrile rubber) and synthetic resin (ABS resin, ANS resin, etc.), and is also used for electrolytic adiponitrile and hydrolysis to acrylamide, and is also the raw material for the production of dyes, water resistant agents, adhesives and other chemical products.

【Packaging】

According to customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5° C~30° C.

10. Acetonitrile

- Industrial Grade Acetonitrile
- Preparative Grade Acetonitrile
- Gradient Grade Acetonitrile

【Main application】

The main purpose of acetonitrile is as a solvent. For example, as a solvent for extracting butadiene, a solvent for synthetic fibers and a solvent for some special coatings. Used in the petroleum industry to remove tar, phenol and other solvents from petroleum hydrocarbons. In the oil industry, it is used as a solvent for extracting fatty acids from animal and vegetable oils, and as a reaction medium for the recrystallization of steroid drugs in medicine. When a polar solvent with a high dielectric constant is required, a binary azeotropic mixture of acetonitrile and water is often used. Acetonitrile is an intermediate of medicine (vitamin B1) and spices, and a raw material for the manufacture of s-triazine nitrogen fertilizer synergist. It is also used as a denaturant for alcohol. In addition, it can also be used to synthesize ethylamine, acetic acid, etc., and also have many uses in textile dyeing and electronics industry. Acetonitrile is also used as a mobile phase solvent in analytical equipment such as chromatography.

【Packaging】

25L/30L barrels, 200L barrels, ton barrels, ISO Tank, special tank truck or as customer requirements.

【Storage】

This product should be sealed and stored in a dry and cool environment; the suitable storage temperature is 5° C~30° C.

11. Demulsifier

- Water soluble demulsifier series
- Oil soluble demulsifier series

Our series crude oil demulsifiers are formed by block polymerization of organic amine (fatty alcohol, polyol, phenolic resin and phenolic amine resin) with ethylene oxide and propylene oxide respectively. They have good wettability and sufficient flocculation and coalescence ability. They can quickly demulsify the emulsion system and achieve the effect of oil-water separation. They are suitable for oil-water separation in various crude oil exploitation at home and abroad, Dehydration and desalination of oil refinery and sewage purification of sewage treatment.

【Main application】

It is used for crude oil dehydration in oil production process, dehydration, desalination and sewage treatment before thermal processing of crude oil in refinery.

【Usage and dosage】

- ① The dehydration effect of crude oil is closely related to the quality of crude oil, the operation process and environment of dehydration process. Before use, test screening shall be carried out to determine the addition amount and test scheme, and the stability of oil quality shall be ensured as far as possible.
- ② The addition amount varies with the composition and properties of crude oil. The recommended addition amount is generally 100ppm ~ 120ppm (0.1kg ~ 0.12kg per ton of crude oil). The addition amount is determined by test.
- ③ The crude oil is pumped into the crude oil transmission pipeline from the side line by metering pump to mix with the crude oil, and then added into the settling tank together with the crude oil to achieve uniform mixing.

【Matters needing attention】

Crude oil demulsifiers have high selectivity and must be screened in the laboratory before use. Without screening, they shall not be mixed with other demulsifiers.

【Packaging and storage】

1.200L plastic bucket or iron bucket packaging. Keep away from fire sources and store in a cool and dry environment.

12. High temperature corrosion inhibitors

In the process of oil refining, when the temperature is higher than 230 °C, sulfur and naphthenic acid will produce chemical corrosion. Sulfur reacts with Fe to form FES protective film. When naphthenic acid exists in the system, naphthenic acid reacts with iron to form iron naphthenate with surface activity, which can dissolve the FES film and promote the further corrosion of sulfur. Wd02-302 high temperature corrosion inhibitor can modify the metal surface and form a stable and dense chemical film on the metal surface, so as to prevent the corrosion of sulfur and naphthenic acid to the metal and control the corrosion of high temperature sulfur and naphthenic acid.

【Main application】

It is used to inhibit the corrosion of sulfur and naphthenic acid in the middle and lower part of fractionator and bottom tray of oil refining unit.

【Usage and dosage】

- ① The recommended dosage is 10 ~ 50 μ g / g. The pre film period is 7 ~ 10 days, and it is added at the rate of 30 ~ 100 μ g / g; Make the corrosion inhibitor form a good anti-corrosion film on the equipment surface, and then gradually reduce the addition amount to normal.
- ② Injection point: in front of atmospheric heating furnace and atmospheric and vacuum side line, the original agent is added.

【Packaging and storage】

200L iron drum packaging, or packaging according to customer requirements, away from fire sources, and stored in a cool and dry warehouse. The shelf life is 24 months.

13. Slurry scale inhibitor

Our oil slurry scale inhibitor is composed of dispersant, antioxidant, surfactant and other components. It has a good dispersing effect on the inherent insoluble suspended solids and small coke scale of the oil slurry, and prevents its condensation and sedimentation; It can form inert molecules with active free radicals, terminate free radical chain reaction and prevent the formation of scale; The polymerization reaction of scaling can terminate the chain and increase the reaction by forming inert molecules; It can form a stable complex with metal ions to prevent condensation reaction caused by catalytic dehydrogenation.

【Main application】

It is used to inhibit scaling and coking of heat exchanger in oil refining unit and improve heat exchange efficiency.

【Usage and dosage】

- ① The recommended dosage is 50 ~ 100 μ g / g
- ② It is injected into the inlet pipeline of feed oil heat exchanger by metering pump in the form of continuous feeding.

【Packaging and storage】

Packed in 200l iron drums, away from fire source, stored in cool and dry warehouse.

The shelf life is 24 months.