

# CHEMICALS DIVISION OF AGRI BRAZIL CHAMBER OF COMMERCE

CÂMARA DE COMÉRCIO  
AGRO BRASIL



## Export & Import



## Manufacturing



## Product Development



## Safety Quality Inspection





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AGRO BRASIL



# CHEMICALS DIVISION OF AGRI BRAZIL CHAMBER OF COMMERCE





# PRODUCTS BROCHURE



**We represent a Limited Wholly State Owned Company which is an international trading company established by the (YETD-MC) Yulin Economic and Technological Development, Management Committee.**

Our represented company has all government approval for chemical and other products we want to run. The facility is easily accessible, as well as full logistics capabilities.

## **Yushen Industrial Park 2022 annual output:**

- ☐ 551,540,000 tons of coal. 31,000,000 tons of semi-coke.
- ☐ 510,000 tons of magnesium ingots and alloys.
- ☐ 1,200,000 tons of ferrosilicon.
- ☐ 600,000 tons of urea.
- ☐ 80,000 tons of ammonium sulfate.
- ☐ 100,000 tons of compound fertilizer.



1

Yulin is very rich in all kinds of chemical products especially magnesium and quality world first. Yulin accounts for 551,540,000 tons of coal per year.

2

Our Industrial Park in Yushen accounts for 60% of the world output of magnesium, as well as semi-carbon, urea and more.

3

Yulin semi-coke production accounts for 50% of China, with an annual output of about 31 million tons, is the world's highest.

4

Yulin, Shenmu is China's only national energy and chemical base, coal production ranks second in the world, quality world first.

5

Yulin also has the energy advantage and energy enrichment, and the local conversion is low.

6

Yulin, Shenmu County is one of the most important recycling projects of coal power refining. And one of the important recycling projects of chemical industry, high quality and low price.



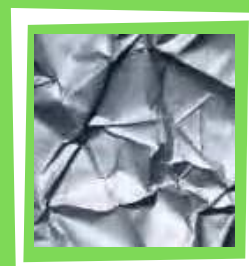
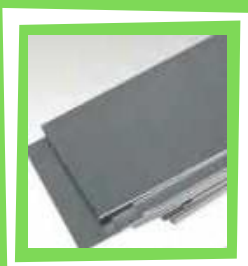




## MAGNESIUM INGOTS, PLATES & ROD BARS

Elemental magnesium is a gray-white lightweight metal, two-thirds the density of aluminium. Magnesium has the lowest melting (923 K (650 °C)) and the lowest boiling point 1,363 K (1,090 °C) of all the alkaline earth metals.

Mg ingot is a new type of lightweight corrosion-resistant metal material, mainly used in mg alloy production, aluminum alloy production, steelmaking desulfurization, aviation and military industry and other fields. In 2022, our Industrial Park Mg production was 510,000 tons, accounting for 50% of the world's production.



| Standard: GB/T3499-2003      Per Unit: % |           |       |       |        |        |       |       |       |       |       |       |                  |
|------------------------------------------|-----------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|------------------|
| Model                                    | Mg purity | Fe    | Si    | Ni     | Cu     | Al    | Mn    | Cl    | Ti    | Pb    | Zn    | Other impurities |
| Mg9998                                   | 99.98     | 0.002 | 0.003 | 0.0005 | 0.0005 | 0.004 | 0.002 | 0.002 | 0.001 | 0.001 | 0.001 | 0.005            |
| Mg9995                                   | 99.95     | 0.003 | 0.01  | 0.001  | 0.002  | 0.01  | 0.01  | 0.003 | -     | -     | -     | 0.005            |
| Mg9990                                   | 99.90     | 0.004 | 0.02  | 0.001  | 0.004  | 0.02  | 0.03  | 0.005 | -     | -     | -     | 0.01             |

- We are the largest magnesium manufacturer in the world and produce Mg ingots, plates, rod bars and alloy.

Where is Magnesium used?

- Aerospace, defense and satellite applications where weight reduction is critical.
- Electronic components where shock absorbing qualities are crucial.
- Automotive/Motor sports applications where weight reduction and strength are required.

Why Magnesium?

- Magnesium is the lightest industrial metal in the world.
- One third lighter than aluminum and as strong as aluminium.
- Magnesium is shock absorbing and dampens vibrations.



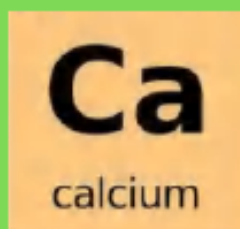


## CALCIUM METAL, Powder and Wire

- Calcium Metal is an alkaline earth metal and has been known since prehistoric times. It is available as disc, granules, ingot, pellets, pieces, powder, rod, wire, and sputtering target. Ultra high purity and high purity forms also include metal powder, submicron powder and nanoscale, quantum dots, targets for thin film deposition, pellets for evaporation and single crystal or polycrystalline forms. Elements can also be introduced into alloys or other systems as fluorides, oxides or chlorides or as solutions.



| Model | Chemical Composition |       |        |        |        |       |       |       |        |       |
|-------|----------------------|-------|--------|--------|--------|-------|-------|-------|--------|-------|
|       | Ca                   | Al    | Mg     | Fe     | Mn     | N     | Si    | Cl    | Cu     | Ni    |
| Ca-1  | 99.9                 | 0.001 | 0.0044 | 0.0014 | 0.0072 | 0.05  | 0.001 | 0.005 | 0.001  | 0.001 |
| Ca-2  | 99.5                 | 0.019 | 0.19   | 0.006  | 0.06   | 0.014 | 0.026 | 0.095 | 0.0004 | 0.014 |
| Ca-3  | 98.5                 | 0.43  | 0.48   | 0.028  | 0.013  | 0.016 | 0.018 | 0.015 | 0.01   | 0.004 |
| Ca-4  | 97.0                 | 0.30  | 0.04   | 0.031  | 0.012  | 0.017 | 0.028 | 0.020 | 0.02   | 0.01  |



| Products         | Size                               | Packing     |
|------------------|------------------------------------|-------------|
| Ca Lump          | Dia: 50mm-200mm                    | 125kgs/drum |
| Ca Powder        | Dia: 2mm-4mm                       | 175kgs/drum |
| Ca Turning       | Lg: 20-50mmW: 20mmThickness: 2-5mm | 90kgs/drum  |
| Extruded Ca Wire | Dia: 7.5mm+/-0.1mmWt: 68g/m+/-2g/m | 175kgs/drum |

One application is in some chemical processes to refine thorium, uranium and zirconium as well as being used to remove oxygen, sulphur and carbon from certain alloys.

Calcium can be alloyed with aluminium, beryllium, copper, lead and magnesium and is also used in vacuum tubes as a 'getter', a material that combines with and removes trace gases from these tubes.


**FERROSILICON**

Yulin accounts for over 1,200,000 tons of ferrosilicon. Ferrosilicon is a ferroalloy composed of iron and silicon. Ferrosilicon is an iron-silicon alloy made of coke, steel chips, quartz (or silica) as raw materials and smelted from an electric furnace. Ferrosilicon is often used as a deoxidizer in steelmaking, and it is also beneficial to increase the temperature of molten steel while deoxidizing.

At the same time, ferrosilicon can also be used as an alloying element additive, widely used in low-alloy structural steel, spring steel, bearing steel, heat-resistant steel and electrical silicon steel, ferrosilicon in alloy production and chemical industry, commonly used as a reducing agent



| Standard: GB/T2272-2020 |    |     |    |     |     | Per Unit: % |      |     |
|-------------------------|----|-----|----|-----|-----|-------------|------|-----|
| Model                   | Si | Al  | Ca | Mn  | Cr  | P           | S    | C   |
|                         | ≥  | ≤   |    |     |     |             |      |     |
| FeSi75                  | 75 | 1.5 | 1  | 0.5 | 0.5 | 0.04        | 0.02 | 0.2 |
| FeSi72                  | 72 |     |    |     |     |             |      |     |
| FeSi70                  | 70 |     |    | 0.6 |     |             |      |     |
| FeSi65                  | 65 |     |    | 0.7 |     |             |      |     |

- Ferrosilicon, or ferrosilicium, is a ferroalloy an alloy of iron and silicon with between 15 and 90% silicon. It contains a high proportion of iron silicides. Its melting point is about 1200 °C to 1250 °C with a boiling point of 2355 °C. It also contains about 1 to 2% of calcium and aluminum.
- The melting points of ferrosilicon alloys are lower than that of iron, mostly below 1673 K [28]. Because the reduction temperature is well above the liquidus, there is generally no difficulty in pouring these alloys, and it is normal to tap the metal into a ladle and to pour it into molds.
- Ferrosilicon alloys absorb gases, especially hydrogen during manufacture, and when cast it is usual to find that ingot has blow holes due to the alloy having given up some of its gas content on solidification.





## UREA - Agricultural Grade, controlled release (46 / 45)

YETD-MC has a production line of 400,000 tons of synthetic ammonia and 600,000 tons of urea. High-quality raw coal is used as raw material to ensure product quality. The recycling project also provides about 80,000 tons of ammonium sulfate, which in turn is an important raw material for 100,000 tons of compound fertilizer. We can provide ammonium sulfate ( $N \geq 20.5\%$ ), urea ( $N \geq 46\%$ ), various types of compound fertilizers ( $N+P+K=57\%$  MAX).



Standard: GB/2440-2017

| Model      | Nitrogen                           | Biuret       | Moisture     | Size(d0.85-2.8mm) |
|------------|------------------------------------|--------------|--------------|-------------------|
| Urea-A     | $\geq 46.4\%$                      | $\leq 0.9\%$ | $\leq 0.5\%$ | $\geq 93\%$       |
| Urea-B     | $\geq 45.0\%$                      | $\leq 1.5\%$ | $\leq 1.0\%$ | $\geq 90\%$       |
| Appearance | Granular, No mechanical impurities |              |              |                   |

- Urea, also called carbamide, the diamide of carbonic acid. Its formula is  $H_2NCONH_2$ . Urea has important uses as a fertilizer and feed supplement, as well as a starting material for the manufacture of plastics and drugs. It is a colorless, crystalline substance that melts at  $132.7^\circ C$  ( $271^\circ F$ ) and decomposes before boiling.
- Because its nitrogen content is high and is readily converted to ammonia in the soil, urea is one of the most concentrated nitrogenous fertilizers. An inexpensive compound, it is incorporated in mixed fertilizers as well as being applied alone to the soil or sprayed on foliage. With formaldehyde it gives methylene-urea fertilizers, which release nitrogen slowly, continuously, and uniformly, a full year's supply being applied at one time.





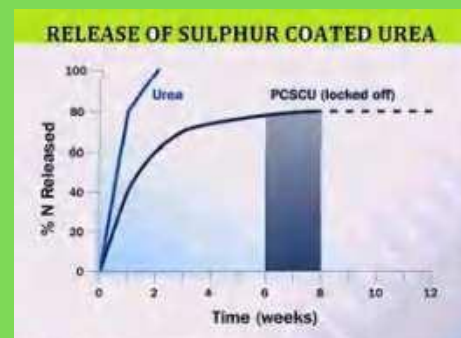
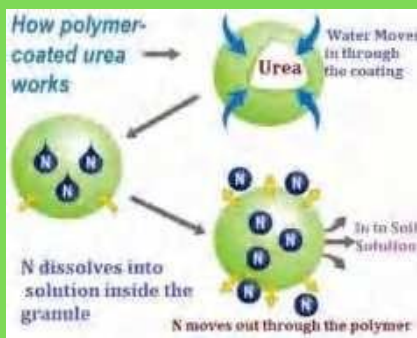
## UREA - Agricultural Grade, Sulfur Coated SCU, controlled release

Coating particles or granules of urea with sulphur and a sealant results in the formation of a membrane that regulates the availability of nitrogen for plant growth. Sulphur Coated Urea (SCU) fertilizer is a slow-release fertilizer that is made by coating urea with sulphur and wax that increases nitrogen efficiency, improves plant growth and reduces water pollution, compared with water soluble fast-release urea.



|                         |             |               |
|-------------------------|-------------|---------------|
| Urea Assay (wt %)       | 98.0 min    | 99.1          |
| Granulate size          | 0.85-2.80mm | 91%           |
| Moisture (wt %)         | 0.5 max     | 0.3           |
| Nitrogen(wt %)          | 46          | 46.4          |
| Biuret (wt %)           | 1.4 max     | 1             |
| Aldehydes (ppm)         | 5.0 max     | 3.0           |
| Free Ammonium (wt %)    | 0.01        | 0.01          |
| Sulfur(≥) as request it | 8-20%       | 8-20%         |
| Insolubles (ppm)        | 20          | 13            |
| Phosphate(ppm)          | 0.5 max     | Less than 0.2 |
| Heavy Metal( ppm)       | 0.5         | 0.3           |

Sulphur Coated Urea Avoid soil compaction; reduce frequency of application and reducing total cost; effectively reduce salt index, improving quality of crops; sulphur is a middle element, to provide nutrition for crops. As a hi-tech controlled/slow release fertilizer, Sulphur coated urea (SCU) has both effects of nitrogen and sulphur fertilizers.

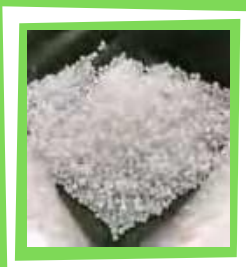






## UREA - Automotive Grade, for manufacturing of AdBlue®/DEF/AUS32 - ISO 22241

It is the only type of Urea that meets the ISO 22241 specification (Uncoated, Aldehyde, heavy metals free) and the only suitable Urea for the production of AdBlue®/DEF/AUS32/SCR solutions. For meeting the ISO 22241 the Urea needs to be of highest purity/quality.



|                      |             |               |
|----------------------|-------------|---------------|
| Urea Assay (wt %)    | 98.0 min    | 99.1          |
| Granulate size       | 0.85-2.80mm | 91%           |
| Moisture (wt %)      | 0.5 max     | 0.3           |
| Nitrogen(wt %)       | 46          | 46.4          |
| Biuret (wt %)        | 0.7 max     | 0.6           |
| Aldehydes (ppm)      | 4.0 max     | 2.1           |
| Free Ammonium (wt %) | 0.01        | 0.01          |
| Insolubles (ppm)     | 20          | 13            |
| Fe (mg/kg)           | 0.5 max     | Less than 0.2 |
| Al (mg/kg)           | 0.5max      | Less than 0.2 |
| Cu (mg/kg)           | 0.5 max     | Less than 0.2 |
| Zn (mg/kg)           | 0.5 max     | Less than 0.2 |
| Cr (mg/kg)           | 0.5 max     | Less than 0.2 |
| Ni (mg/kg)           | 0.5 max     | Less than 0.2 |
| Mg (mg/kg)           | 0.5 max     | Less than 0.2 |
| Na (mg/kg)           | 0.5max      | Less than 0.2 |
| K (mg/kg)            | 0.5 max     | Less than 0.2 |
| Ash (ppm)            | 100 max.    | Less than 10  |
| Phosphate(ppm)       | 0.5 max     | Less than 0.2 |
| Heavy Metal( ppm)    | 0.5         | 0.3           |
| Additive             | NONE        | NONE          |

Automotive grade urea dissolved within deionized water is resulting in an aqueous urea solution, supporting the reduction of mono-nitrogen oxides exhaust emissions by injection into selective catalytic reduction systems of heavy duty engines. This aqueous urea solution is standardized as AUS 32 in ISO 22241 and consequently the technical specifications for automotive grade urea are derived from this standard.



## UREA - Industrial / Technical Grade

High-purity Urea Industrial / Technical Grade well known for accurate composition, impurity-free Urea Industrial Grade using superior purity chemicals and the latest manufacturing equipment according to International Industry standards. Urea Industrial Technical Grade is a nitrogenous compound containing a carbonyl group attached to two amine groups with osmotic diuretic activity. Urea Industrial Technical Grade derives from a carbonic acid and is a tautomer of a carbamimidic acid.



|                      |             |               |
|----------------------|-------------|---------------|
| Urea Assay (wt %)    | 98.0 min    | 99.1          |
| Granulate size       | 0.85-2.80mm | 91%           |
| Moisture (wt %)      | 0.6 max     | 0.3           |
| Nitrogen(wt %)       | 46          | 46.4          |
| Biuret (wt %)        | 0.8 max     | 0.64          |
| Aldehydes (ppm)      | 4.8 max     | 2.1           |
| Free Ammonium (wt %) | 0.01        | 0.01          |
| Insolubles (ppm)     | 20          | 13            |
| Fe (mg/kg)           | 0.5 max     | Less than 0.2 |
| Al (mg/kg)           | 0.5max      | Less than 0.2 |
| Cu (mg/kg)           | 0.5 max     | Less than 0.2 |
| Zn (mg/kg)           | 0.5 max     | Less than 0.2 |
| Cr (mg/kg)           | 0.5 max     | Less than 0.2 |
| Ni (mg/kg)           | 0.5 max     | Less than 0.2 |
| Mg (mg/kg)           | 0.5 max     | Less than 0.2 |
| Na (mg/kg)           | 0.5max      | Less than 0.2 |
| K (mg/kg)            | 0.5 max     | Less than 0.2 |
| Ash (ppm)            | 100 max.    | Less than 10  |
| Phosphate(ppm)       | 0.5 max     | Less than 0.2 |
| Heavy Metal( ppm)    | 0.5         | 0.3           |
| Additive             | NONE        | NONE          |

### Urea industrial / technical grade applications:

As a component of animal feed, ingredient in dish soap, browning agent in factory-produced pretzels, tooth whitening products, flavour-enhancing additive for cigarettes, cloud seeding agent along with other salts, in hair removers, nitrocellulose explosive, flame-proofing agent, non-corroding alternative to rock salt for road de-icing, with ammonium phosphate as a yeast nutrient for fermentation of sugars into ethanol, additive to extend the working temperature and open time of hide glue, reactant in some ready-to-use cold compresses for first-aid use, for resurfacing of snowboarding half pipes and terrain parks, in some hair conditioners, facial cleansers, bath oils, skin softeners, and lotions, as a solubility-enhancing and moisture-retaining additive to dye baths for textile dyeing or printing.





## Urea Crystallized Medical / Pharmaceutical Grade USP 43

Pharmaceutical / Medical Grade Urea it is the highest purity available urea and is manufactured in a highly contained and safe environment. Although urea (or carbamide) is a common chemical in the epidermis, most urea utilized medically and pharmaceutically is synthesized in laboratories. Urea is considered a natural moistening factor when produced by the body, and the synthetic alternative enhances the body's natural ability to moisturize.



|                      |             |               |
|----------------------|-------------|---------------|
| Urea Assay (wt %)    | 98.0 min    | 99.1          |
| Granulate size       | 0.85-2.80mm | 91%           |
| Moisture (wt %)      | 0.6 max     | 0.3           |
| Nitrogen(wt %)       | 46          | 46.4          |
| Biuret (wt %)        | 0.1 max     | 0.1           |
| Aldehydes (ppm)      | 3.5 max     | 0.6           |
| Free Ammonium (wt %) | 0.01        | 0.01          |
| Insolubles (ppm)     | 20          | 13            |
| Fe (mg/kg)           | 0.5 max     | Less than 0.2 |
| Al (mg/kg)           | 0.5max      | Less than 0.2 |
| Cu (mg/kg)           | 0.5 max     | Less than 0.2 |
| Zn (mg/kg)           | 0.5 max     | Less than 0.2 |
| Cr (mg/kg)           | 0.5 max     | Less than 0.2 |
| Ni (mg/kg)           | 0.5 max     | Less than 0.2 |
| Mg (mg/kg)           | 0.5 max     | Less than 0.2 |
| Na (mg/kg)           | 0.5max      | Less than 0.2 |
| K (mg/kg)            | 0.5 max     | Less than 0.2 |
| Ash (ppm)            | 100 max.    | Less than 10  |
| Phosphate(ppm)       | 0.5 max     | Less than 0.2 |
| Heavy Metal( ppm)    | 0.5         | 0.3           |
| Additive             | NONE        | NONE          |

### Urea industrial / technical grade applications:

Urea-containing creams are used as topical dermatological products to promote rehydration of the skin. Urea 40% is indicated for psoriasis, xerosis, onychomycosis, ichthyosis, eczema, keratosis, keratoderma, corns, and calluses. If covered by an occlusive dressing, 40% urea preparations may also be used for nonsurgical debridement of nails. Urea 40% "dissolves the intercellular matrix"[10] of the nail plate. Only diseased or dystrophic nails are removed, as there is no effect on healthy portions of the nail. This drug is also used as an earwax removal aid.



## Urea - Liquid AdBlue®/DEF/AUS32/SCR ISO 22241 for diesel cars

AdBlue®/DEF/AUS32/SCR liquid solution is made up of 32.5% urea and 67.5% de-ionised water. You may be wondering, where does the urea in AdBlue® come from? Well, AdBlue® urea is made by heating up synthetic ammonia and carbon dioxide. The urea is then added to the de-ionised water to create AdBlue®/DEF/AUS32. This guarantees quality in accordance with very strict specifications contained in ISO 22241.



| Parameter                | Minimum                                     | Maximum | Unit  |
|--------------------------|---------------------------------------------|---------|-------|
| Appearance               | Colourless Liquid with slight ammonia odour |         |       |
| Freezing point           | -11°C                                       | -11°C   | °C    |
| Boiling point            | 100°C                                       | 100°C   | °C    |
| Basicity                 | 9                                           | 10      | pH    |
| Flash point              | not applicable (non-flammable)              |         |       |
| Water solubility         | 100                                         |         | g/l   |
| Viscosity at 20°C        | 1.4                                         | 1.4     | mPa.s |
| Urea Content             | 31.8                                        | 33.2    | %     |
| Density at 20°C          | 1.087                                       | 1.093   | g/cm3 |
| Refracting index at 20°C | 1.3814                                      | 1.3843  |       |
| Alkalinity as NH3        |                                             | 0.2     | %     |
| Biuret                   |                                             | 0.3     | %     |
| Insolubles 20 mg/kg      |                                             | 20      | mg/kg |
| Calcium                  |                                             | 0.5     | mg/kg |
| Iron                     |                                             | 0.5     | mg/kg |
| Aluminium                |                                             | 0.5     | mg/kg |
| Magnesium                |                                             | 0.5     | mg/kg |
| Sodium                   |                                             | 0.5     | mg/kg |
| Potassium                |                                             | 0.5     | mg/kg |
| Copper                   |                                             | 0.2     | mg/kg |
| Zinc                     |                                             | 0.2     | mg/kg |
| Chromium                 |                                             | 0.2     | mg/kg |
| Nickel                   |                                             | 0.2     | mg/kg |

AdBlue®/DEF/AUS32 is a diesel exhaust fluid used in vehicles with Selective Catalytic Reduction (SCR) technology to reduce harmful gases being released into the atmosphere. AdBlue®/DEF/AUS32 is a 32,5 % solution of high-purity, synthetically manufactured urea in de-mineralized water. It is a safe-to-use fluid.



## CAUSTIC SODA Flakes & Pearls (sodium hydroxide)

Caustic soda is an alkali salt which is also called Lye. It is the common name of sodium hydroxide. This name is given due to the corrosive nature of this salt on animal and plant tissues. It's a highly caustic base and the alkali that decomposes proteins at ordinary ambient temperatures and can severely burn chemical burns. It readily absorbs carbon dioxide and moisture from the air and is highly soluble in water. It creates a series of hydrates  $\text{NaOH} \cdot n\text{H}_2\text{O}$ . Available in flakes and pearls.



| NaOH             | Caustic Soda                                                               |
|------------------|----------------------------------------------------------------------------|
| Density          | $\text{g cm}^3 = 2.13 \text{ g/cm}^3$<br>$\text{g ml} = 2.13 \text{ g/ml}$ |
| Molecular weight | 39.997 g/mol                                                               |
| Molecular Volume | 18.778 $\text{cm}^3/\text{mol}$                                            |
| Boiling Point    | 1388°C                                                                     |
| Melting Point    | 323°C                                                                      |

One of the strongest alkalis is a white solid, with no pronounced odor. The size of the flakes can reach 0.5 mm. NaOH easily dissolves in water and absorbs moisture from the air with the release of a large amount of heat. It has a wide range of applications. The chemical formula of sodium hydroxide is NaOH. Caustic soda it is often use in in the manufacturing of petroleum products and manufacturing of pulp and paper.

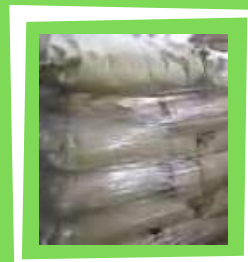






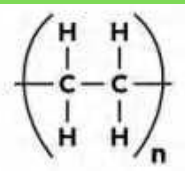
## POLYETHYLENE (PE)

Polyethylene is a type of polyolefins. This is a lightweight, durable plastic that is often used for frozen food bags, bottles, cereal liners, yogurt containers, etc. Look around you, all plastics with recycling codes 2 and 4 are made of polyethylene. PE plastics comes with different crystalline structures. Subfamilies (HDPE, LDPE, LLDPE).



|                      | LDPE                                                                                                                                                                                                                                           | LLDPE                                                                                                                                                         | HDPE                                                                                                                                                                                                                                                                                              |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Polymer Full Name    | Low Density Polyethylene                                                                                                                                                                                                                       | Linear Low Density Polyethylene                                                                                                                               | High Density Polyethylene                                                                                                                                                                                                                                                                         |
| Structure            | High Degree of short chain branching + long chain branching                                                                                                                                                                                    | High Degree of short chain branching                                                                                                                          | Linear (or Low degree of short chain branching)                                                                                                                                                                                                                                                   |
| Catalyst and process | Using radical polymerization using tubular method or auto clave method                                                                                                                                                                         | Using Ziegler-Natta catalyst or metallocene catalyst                                                                                                          | Ziegler-Natta catalyst in- Single-stage polymerization- Multi-stage polymerization or a Cr or Phillips-type catalyst                                                                                                                                                                              |
| Density              | 0.910-0.925 g/cm <sup>3</sup>                                                                                                                                                                                                                  | 0.91-0.94 g/cm <sup>3</sup>                                                                                                                                   | 0.941-0.965 g/cm <sup>3</sup>                                                                                                                                                                                                                                                                     |
| Crystallinity        | Low crystalline and high amorphous (less than 50-60% crystalline)                                                                                                                                                                              | Semi-crystalline, level between 35 to 60%                                                                                                                     | High crystalline and low amorphous (>90% crystalline)                                                                                                                                                                                                                                             |
| Characteristics      | <ul style="list-style-type: none"><li>o Flexible and good transparency</li><li>o Good moisture barrier properties</li><li>o High impact strength at low temperature</li><li>o Excellent resistance to acids, bases and vegetable oil</li></ul> | <ul style="list-style-type: none"><li>As compared to LDPE, it has</li><li>o higher tensile strength</li><li>o higher impact and puncture resistance</li></ul> | <ul style="list-style-type: none"><li>o Excellent Chemical Resistance</li><li>o High tensile strength</li><li>o Excellent moisture barrier properties</li><li>o Hard to semi-flexible</li></ul>                                                                                                   |
| Recycling Code       |                                                                                                                                                                                                                                                |                                                                                                                                                               |                                                                                                                                                                                                                                                                                                   |
| General Applications | Shrink wrap, films, squeezable bottles garbage bags, extrusion moldings, and laminates                                                                                                                                                         | High performance bags, cushioning films, tire separator films, industrial liners, elastic films, ice bags, bags for supplemental packaging and garbage bags   | <ul style="list-style-type: none"><li>o Molecular weight distribution is relatively narrow, has applications in injection moldings or flat yarns, and the latter type</li><li>o Molecular weight distribution is wide, is used to make film products, hollow plastic products and pipes</li></ul> |

This is a lightweight, durable plastic that is often used for frozen food bags, bottles, cereal liners, yogurt containers, etc. Look around you, all plastics with recycling codes 2 and 4 are made of polyethylene.





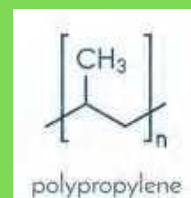
## POLYPROPYLENE (PP)

Polypropylene is a polymer whose monomer is propylene (an organic hydrocarbon with the chemical formula  $C_3H_6$ ). The chemical formula of polypropylene is  $(C_3H_6)_n$ . This polymer is also known as polypropene and is often denoted by the abbreviation 'PP'. Generally, polypropylene is produced via a chain-growth polymerization reaction involving propylene.



| Property                                                                                                                                                                        | TPO        | Impact     | Coa        | Homob      | Talc      | GFC       | LFRTd | SRPPE   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|-----------|-----------|-------|---------|
| Density, g/cm <sup>3</sup>                                                                                                                                                      | 0.9-1      | 0.9        | 0.9        | 0.9        | 0.97-1.25 | 0.97-1.25 | 1.2   | 0.8-0.9 |
| Shore hardness, D                                                                                                                                                               | 10-99      | 45-55      | 70-80      | 70-83      | 75-85     | 70-88     |       |         |
| Rockwell hardness, M                                                                                                                                                            |            |            |            |            | 10-45     |           |       |         |
| Stress at yield, MPa                                                                                                                                                            |            | 11-28      | 20-35      | 35-40      | 22-28     | 19-70     |       |         |
| Elongation at break, %                                                                                                                                                          | 450-850    | 20-700     | 200-600    | 15-600     | 20-30     | 2-30      | 2     |         |
| Tensile modulus, GPa                                                                                                                                                            |            | 0.4-1      | 1-1.2      | 1.1-1.6    | 1.5-3.5   | 1-10      | 4-8   | 4-14    |
| Notched impact strength<br>ASTM D256, J/m                                                                                                                                       | 110-NB     | 110-NB     | 60-500     | 20-60      | 30-200    | 38-160    |       |         |
| HDT A[1.8 MPa], °C                                                                                                                                                              |            | 46-57      | 50-60      | 50-60      | 56-75     | 50-140    | 160   |         |
| Minimum service<br>temperature, °C                                                                                                                                              | -40 to -20 | -40 to -20 | -20 to -10 | -20 to -10 | -20 to -5 | -30 to -5 |       |         |
| UL94 fire rating                                                                                                                                                                | HB         | HB         | HB         | HB         | HB        | HB        | HB    | HB      |
| Coa - CopolymerHomob - HomopolymerGFC - Glass FilledLFRTd - Long Fiber Reinforced ThermoplasticSRPPE - Self Reinforced PolyPropyleneTPO - Thermoplastic PolyOlefinNB - No Break |            |            |            |            |           |           |       |         |

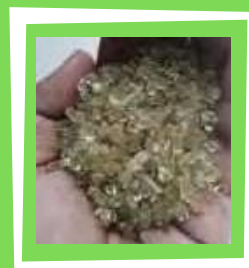
- Toughness and flexibility (exhibited to a large extent especially when the polymerization process involves copolymerization with ethylene).
- Large thermal expansion.
- Resistant to organic solvents.
- Resistant to weak oxidizing agents.
- Soluble in some organic nonpolar solvents like xylene.





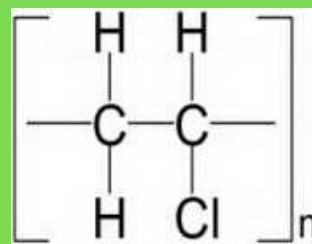
## POLYVINYL CHLORIDE (PVC)

Polyvinyl Chloride (PVC) is a high-strength thermoplastic polymer made from the polymerization of vinyl chloride. PVC is the third most extensively produced synthetic polymer globally, with around 40 million tonnes produced yearly. It is widely used to produce pipes, wire and cable insulation, medical devices, etc.

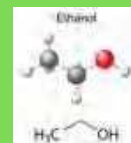


| Mechanical Properties of PVC |                       |
|------------------------------|-----------------------|
| Elongation Break             | 20-40%                |
| Notch Test                   | 2-5 kJ/m <sup>2</sup> |
| Glass Transition Temperature | 82°C (180°F)          |
| Water Absorption (Astm)      | 0.04 - 0.4            |
| Effective Heat Of Combustion | 17.95 MJ/kg           |
| Specific Heat                | 0.9 kJ/(kg. K)        |
| Dielectric Breakdown Voltage | 40 MV/m               |

- Polyvinyl Chloride is a white, brittle solid material available in form of powder or granules.
- It is lightweight, durable, low-cost, and can easily be processed.







## ETHANOL 99.99%

Ethanol is a clear, colorless alcohol produced mostly from grains or sugar. Since it is made from biomass (\*organic material derived from plants and animals), it is considered a renewable energy. Ethanol is often blended with gasoline or diesel fuels to produce a cleaner-burning fuel for automobiles.

Final product applications: Raw material for adhesives, Raw material for binders, Raw material for fuels or fuel additives, Raw material for aerosol propellants, Raw material for anti-freezing agents, Raw material for cleaning agents, Raw material for disinfectants, Raw material for cosmetic agents, Raw material for fragrances, Raw material for pharmaceuticals, Raw material for toiletries, Raw material for printing inks and printing ink additives.



| Item                     | Specification            | Result                   |
|--------------------------|--------------------------|--------------------------|
| Appearance               | colorless clarity liquid | colorless clarity liquid |
| Purity%                  | 99.9min                  | 99.92                    |
| Color(hazen)             | 10max                    | 5                        |
| Water content%           | 0.05max                  | 0.04                     |
| Acidity(as acetic acid)% | 0.002max                 | 0.0008                   |
| Density at 20°C(g/cm³)   | 0.784-0.786              | 0.7851                   |
| Evaporation residue%     | 0.002max                 | 0.0008                   |
| Carbonyl value%          | 0.02max                  | 0.0028                   |
| Sulfide content(mg/kg)   | 2max                     | 0.3                      |
| Water soluble experient  | /                        |                          |



Pharmaceuticals



Chemicals



Paintings



Electronic Cleaning



Gasoline Addive



Industrial Cleaning



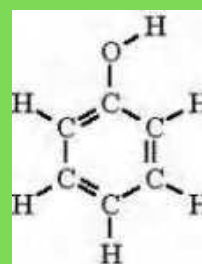
### PHENOL REFINED

Phenol is both a manufactured chemical and a natural substance. It is a colorless-to-white solid when pure. The commercial product is a liquid. Phenol has a distinct odor that is sickeningly sweet and tarry. You can taste and smell phenol at levels lower than those that are associated with harmful effects. The physical and chemical properties of phenol are mainly because of the presence of the hydroxyl group in them.



| Parameter name: | Value:                         |
|-----------------|--------------------------------|
| Density         | 1.07 grams per centimetre cube |
| Boiling point   | 181.7 °C                       |
| Melting point   | 40.5 °C                        |
| Molecular mass  | 94.113 g mol <sup>-1</sup>     |

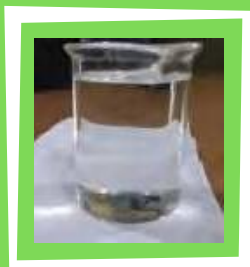
Phenol is used primarily in the production of phenolic resins and in the manufacture of nylon and other synthetic fibers.





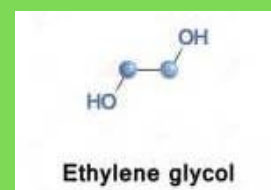
## ETHYLENE GLYCOL

Ethylene Glycol is highly toxic. It is also known as Ethane-1,2-diol or Monoethylene glycol. It has no smell and is viscous. It is colorless and has a sweet taste. It appears as a clear, colorless, liquid. It is widely used as an antifreeze and a raw material in the plastic industry. Ethylene Glycol is produced when ethylene oxide reacts with water.



| C <sub>2</sub> H <sub>6</sub> O <sub>2</sub> | Ethylene Glycol        |
|----------------------------------------------|------------------------|
| Molecular Weight/ Molar Mass                 | 62.07 g/mol            |
| Density                                      | 1.11 g/cm <sup>3</sup> |
| Boiling Point                                | 197.3 °C               |
| Melting Point                                | -12.9 °C               |

Ethylene glycol has been the most abundantly produced diol because it is one of the monomers of polyethylene terephthalate. Ethylene glycol has been synthesized by the oxidation of ethylene with O<sub>2</sub> to ethylene oxide and the subsequent hydration of ethylene oxide to ethylene glycol. Usually, ethylene is supplied from the thermal cracking of naphtha from petroleum refining.







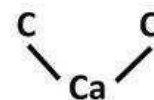
## CALCIUM CARBIDE

Calcium carbide, also known as calcium acetylide, is an inorganic chemical compound with formula  $\text{CaC}_2$ . Pure calcium carbide is colorless and odorless; however, the commercial calcium carbide presents a different color range. Calcium carbide is used in the production of important industrial chemicals. Calcium carbide when reacts with water produces acetylene and calcium hydroxide, both of which are used in important industrial processes.



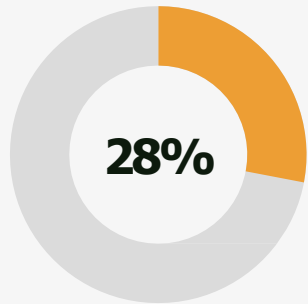
| Property                     | Value                  |
|------------------------------|------------------------|
| Molecular Weight/ Molar Mass | 64.099 g/mol           |
| Density                      | 2.22 g/cm <sup>3</sup> |
| Boiling Point                | 2300 °C                |
| Melting point                | 2160 °C                |

Calcium carbide is produced in industries using a mixture of coke and lime at a temperature of approximately 2200 °C (3990 °F) in an electric arc furnace. This method was invented by a Canadian inventor Thomas L. Wilson in the year 1892 and this production process has not changed ever since.





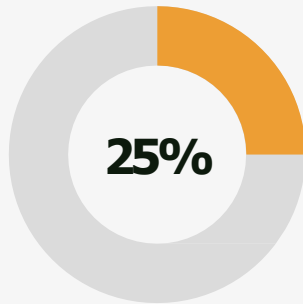
**The (YETD-MC) Yulin Economic and Technological Development,  
Management Committee, Export Program**



**28%**

**MAGNESIUM**

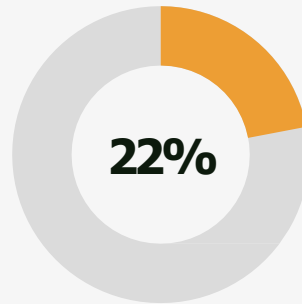
8,898,000 tones / year



**25%**

**FERROSILICON**

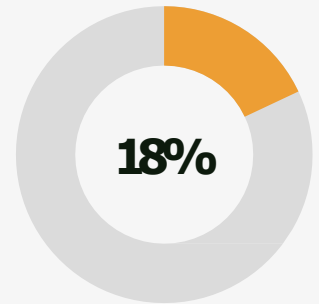
3,000,000 tons / year



**22%**

**UREA**

400,000 tons / year



**18%**

**SEMI-COKE**

10,000,000 tones / year





## Our certifications and qualifications



## 检测报告

报告编号: MYZX20230002017



样品名称: 兰炭 (SEMI COKE)  
受检单位: 陕西榆神外经贸发展有限公司 Shaanxi  
Co., Ltd.  
委托单位: 陕西榆神外经贸发展有限公司 Shaanxi  
Co., Ltd.  
检验类别: 委托检测

国家煤及盐化工产品质量监督检验中心(榆林)  
榆林市产品质量监督检验所



## 检测报告

报告编号: MYZX20230002117



样品名称: 煤 (COAL)  
受检单位: 陕西榆神外经贸发展有限公司 Shaanxi  
Co., Ltd.  
委托单位: 陕西榆神外经贸发展有限公司 Shaanxi  
Co., Ltd.  
检验类别: 委托检测

国家煤及盐化工产品质量监督检验中心(榆林)  
榆林市产品质量监督检验所





## About Us - Mission and Vision

### MISSION

Our mission is to establish a one stop chemical trading company that will become a major manufacturer and trader and distributor for top chemical products for companies in China, APAC, North and South America, Europe and Africa.

We take pride in working in a proactive, collaborative environment of equality, trust, respect, co-operation and challenge to deliver products and services that strive to exceed the needs and expectations of customers.

### VISION

Our vision is to become one of the leading supplier in the chemical wholesaling industry not just in China but also in every continent and every country in the world.

We do not intend to do chemical trading business like the usual business; our intention as a chemical and other products manufacturer and trading company is to build an exceptional business, whose business influence will transcend the whole China and all over the world.





Environmental awareness is not a trend that comes into style a few months and stops. Individuals working towards making a small impact on Earth, tend to change their lifestyle to accommodate new ways of living. Use Green Development to Create the Future.

"A drop of water is worth more than a sack of gold to a thirsty man".

"Treat the earth with heart so the world doesn't fall apart".

"You have the power today to change tomorrow".

"See green, see life".



# CHEMICALS DIVISION OF AGRI BRAZIL CHAMBER OF COMMERCE



# CHEMICALS DIVISION OF AGRI BRAZIL CHAMBER OF COMMERCE



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