

TECHNICAL DATA SHEET

Calcium chloride pellets/powder 94-98% Anhydrous CaCl₂



**MANUFACTURER: ZIRAX LLC
VOLGOGRAD, RUSSIA**

A fast-growing producer and seller of specialty chemicals for oilfield applications, de-icing solutions and industrial chemicals

Zirax LLC produces high quality calcium chloride anhydrous pellets and anhydrous powder with minimum 94% content by using neutralization process.

To manufacture pellets and powder Zirax LLC uses high quality ultra pure calcium carbonate from its own mine and synthetic hydrochloric acid from natural salt electrolysis.



The exact process is patented by Zirax LLC and provides for superior quality of produced material that can be used in variety of industrial, energy and municipal applications.

Zirax LLC technical grade calcium chloride meets ASTM D 98-05 (Type S, Grade 3, Class B), AASHTO M144 and GOST 450-77 requirements for calcium chloride purity.

There is versatile range of markets and applications where calcium chloride can be used in various fractions, most comfortable for the end-users. It is widely used:

- in the mining industry
- construction
- industrial wastewater treatment
- dust suppressant
- drying of industrial gas and air
- as a cooling agent
- tire weighing
- on the oil and gas fields as main component
- as one of the ingredients of drilling muds, completion fluids, bit lubricants, concrete accelerators, packer and workover fluids
- as dehumidifier, etc.

Zirax LLC calcium chloride provides the following CUSTOMER BENEFITS:

- ❖ High purity: made of synthetic inhibited hydrochloric acid and high pure limestone
- ❖ Smaller particle size for the fastest dissolving speed reach

**Calcium chloride pellets/powder 94-98%
Anhydrous CaCl₂**

Standard of production: GOST 450-77
 EC CLASSIFICATION: CAS № 10043-52-4
 EC № 233-140-8

Trade names: UniPelTM, PelletOilTM

CHEMICAL PROPERTIES

Parameter	UOM	Guaranteed	Typical
Fraction of calcium chloride total mass (CaCl ₂)	%, min	94	94,5
Fraction of magnesium total mass, calculated on MgCl ₂	%, max	0,5	0,1
Fraction of other chlorides, including MgCl ₂ , recalculated to NaCl	%, max	1,5	1
Fraction of iron (Fe)	%, max	0,004	0,004
Fraction of insoluble in water residual total mass	%, max	0,1	0,05
Fraction of sulphates, recalculated to sulphate - ion	%, max	0,1	0,02

PHYSICAL PROPERTIES

Appearance	White pellets / powder without odor
Molecular weight	110.99
Bulk density	Pellets 750 kg/m ³ Powder 960 kg/m ³
Pellets size distribution	5 – 10 mm – 10% maximum 1.25 – 5.0 mm – 75% minimum < 1.25 mm – 15% maximum
Powder size distribution	more than 2 mm - 1% max 1-2 mm - 20% max less than 1 mm - 79% max



Store in a cool, dry, well-ventilated warehouses. Keep away from incompatible materials. Can be stored on open grounds in bags on wooden pallets, covered by fabric.

PACKAGING

Type of bag	Dimensions
Polypropylene valve bags - net weight 25 kg - gross weight 25,15 kg	40 bags stacked on fumigated wooden pallet and wrapped by thermo-shrinkable film (126Lx106Wx115 height cm). Volume – 1 MT.
Big bags with inner liner: - net weight 1000 kg - gross weight 1004 kg	120Lx120Wx145 height cm
Big bags with inner liner: - net weight 1200 kg - gross weight 1204 kg	120Lx120Wx150 height cm
Big bags with inner liner: - net weight 1300 kg - gross weight 1304 kg	120Lx120Wx160 height cm

In accordance with Buyer's demand big bags are placed on fumigated wooden pallets. Dimension of pallets depends on which means of transportation are used. If delivery is arranged by truck pallet 1200 x 1000 cm is taken, height – 15 cm, by container – 1100 x 1100 cm, height - 8 cm.



TRANSPORTATION

Means of transportation	Variants of loading	
Loading into truck 20 MT net max	20 pallets x 1 MT each pallet	or
	20 big bags x 1 MT each BB	or
	16 big bags x 1,2 MT each BB	or
	16 big bags x 1,3 MT each BB	
Loading into 20' container 20 MT net max	20 pallets x 1 MT each pallet	or
	26 pallets x 1 MT each pallet	or
Loading into 40' container 26 MT net max	20 big bags x 1,0 MT each BB	or
	20 big bags * 1.2 MT each BB	or
	20 big bags x 1,3 MT each BB	



Each lot of goods is to be accompanied by the following documents:

- Invoice
- Packing list
- Manufacturer's Certificate of Quality
- Waybill
- Certificate of Origin
- Fumigation certificate

**EUROPEAN COMMUNITY
EEC HAZARD PICTOGRAMS AND CLASSIFICATION**



H319: WARNING! Causes serious eye irritation

REACH REGISTRATION UNDER REGULATION (EC) NO 1907/2006 IS COMPLETED

PRECAUTIONARY STATEMENTS:

P 264: Wash hands thoroughly after handling.

P 280: Wear protective glasses with splash shields or safety goggles/shield.

P305 + P351 + P338 Rinse eyes cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P 313 If irritation continued get prompt qualified medical attention.