



MODHESHWARI
CHEMICALS

Premier Supplier of

AMMONIUM CHLORIDE & INORGANIC

salts on a global scale

AMMONIUM CHLORIDE

Ammonium chloride is an inorganic chemical compound, with the formula NH_4Cl . It is a white or colorless, odorless, cubic crystalline salt with a biting taste. Soluble in: ammonia, water, methanol, alcohol, glycerol and hydrazine. Solutions of ammonium chloride is mildly acidic. It is prepared commercially by reacting ammonia, NH_3 , with hydrogen chloride, HCl .

Formula: NH_4Cl

Molar Mass: 53.491

G/MOLE SUBLIMATION

Point: 338 °C

Density: 1.53 G/CM^3

it is prepared commercially by reacting ammonia (NH_3) gas with hydrochloric acid (HCR)

EXTRA PURE GRADE

Characteristics	Range
Appearance	White Crystalline Powder
Assay (On Dry Basis)	99.50% Min.
Moisture	1.00% Max.
Iron	50 Ppm Max.
Sulphated Ash	0.20% Max.
Residue on Ignition	0.10% Max.
pH of 5% Solution	4.5 – 6.0
Matter insoluble in Water	0.10% Max.
Heavy Metals (as Pb)	5 Ppm Max.
Arsenic	5 Ppm Max.

TECHNICAL GRADE

Characteristics	Range
Appearance	White Crystalline Powder
Assay (On Dry Basis)	98.50% Min.
Moisture	5.00% Max.
Iron	200 Ppm Max.
Sulphated Ash	0.30% Max.
Residue on Ignition	0.30% Max.
pH of 5% Solution	4.5 – 6.0
Matter insoluble in Water	0.30% Max.
Heavy Metals (as Pb)	5 Ppm Max.
Arsenic	5 Ppm Max.

PURE GRADE

Characteristics	Range
Appearance	White Crystalline Powder
Assay (On Dry Basis)	99.00% Min.
Moisture	1.00% Max.
Iron	100 Ppm Max.
Sulphated Ash	0.30% Max.
Residue on Ignition	0.10% Max.
pH of 5% Solution	4.5 – 6.0
Matter insoluble in Water	0.20% Max.
Heavy Metals (as Pb)	5 Ppm Max.
Arsenic	5 Ppm Max.



CALCIUM CHLORIDE FUSED

Application:

- ▶ Oilfield: As a fluid for drilling, cementing, and work over operations.
- ▶ Petrochemical industry: As a dehydrating agent.
- ▶ Rubber industry: As a coagulant.
- ▶ Paper-making industry: As an additive and for de-inking waste paper

CaCl₂- Calcium Chloride Fused

Particulars	Calcium Chloride Fused
Assay	74-75%
Appearance	2" White Lumps
Magnesium	0.3% max.
Iron	100 ppm max.
Dry Basis Assay	98% min.
Packing In	50 Kgs. HDPE bag with HMHDP liners



CALCIUM CHLORIDE DIHYDRATE

Application:

- ▶ **Food:** As a firming agent in canned vegetables, tofu, and caviar substitutes. It's also used to enhance the texture of fruits and vegetables.
- ▶ **Beverages:** As an electrolyte in sports drinks, bottled water, and other beverages.

CaCl₂- Calcium Chloride Pharma Grade

Particulars	Calcium Chloride Dihydrate
Assay	97 to 103% as CaCl ₂ .2H ₂ O
Arsenic	0.0003% max. <3 ppm
Lead (Pb)	0.001% max. <10 ppm
Heavy Metal as (Pb)	0.0003% max. <3 ppm
Magnesium/Alkali	1% max
Clarity of 10% Solution	Clear & Colorless
Free Acid or Alkali	0.005% max.
pH 4.5 - 9	0.2ml of 0.01M HCl/NaOH to 10ml of 10%



CALCIUM CHLORIDE SOLUTION OR CALCIUM CHLORIDE BRINE REFRIGERATION GRADE

A Brine may be defined as liquid of low freezing point used in transmission of refrigeration without change of state. The brines commonly employed in refrigeration are Calcium Chloride CaCl_2 and Sodium Chloride. Sodium Chloride is cheaper but cannot be used below -15°C . CaCl_2 of commercial grade can operate satisfactorily up to minus 40°C . Use of CaCl_2 above 33% should be avoided as it results in crystallization resulting in reduced efficiency. The CaCl_2 selected should be adjusted to pH of around 8 and it should be free from free-acid and dirt. Colored material should not be used as it results in corrosion and scaling of the tubes. For the same reason by-product CaCl_2 is not desirable as it contains Organic Chlorides which may break into Hydrogen Chloride.

CaCl_2 - Calcium Chloride Liquid (Brine)

Particulars	Calcium Chloride Liquid (Brine)	
Appearance	Clear Colorless Solution	Purity
Specific Gravity	1.300 gm/cm ³	30 %
Specific Gravity	1.370 gm/cm ³	38 %
Specific Gravity	1.400 gm/cm ³	45 %
Packing In	Tanker Load or 250 KGS HDPE Drums	

