

Bridging Businesses together

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Product Information Sheet

STANDARD SPECIFICATION OF GRANULAR UREA N46%

Guaranteed Specification – Granular

| Urea Assay (wt %)98.0 minMass portion of nitrogen (N) on a dry basis, %min46.2Mass portion of Biuret, %, max0.71Ferrum %0.0007Apparent Density (Kg/m³)770-809 Kg/m³Free Ammonia160 PXT PPM maximumSulphates %0.0079Alkalinity %0.022Arsenic %10ppmCadmium3ppmMercury0%Selenium0.4ppmChromium0.4ppmChromium0.85-3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical StateSolid at 20 °C, 101 KPA White GranulesSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5-10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Cluted, Free From Harmful SubstancesSalinity Index75.4 | COMPOSITION | SPECIFICATION |
|---|---|---|
| Mass portion of Biuret, %, max0.71Ferrum %0.0007Apparent Density (Kg/m³)770–809 Kg/m³Free Ammonia160 PXT PPM maximumSulphates %0.0079Alkalinity %0.022Arsenic %10ppmCadmium3ppmMercury0%Selenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical PresentationWhite GranularSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAtti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimension132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Urea Assay (wt %) | 98.0 min |
| Ferrum %0.0007Apparent Density (Kg/m³)770–809 Kg/m³Free Ammonia160 PXT PPM maximumSulphates %0.0079Alkalinity %0.022Arsenic %10ppmCadmium3ppmMercury0%Selenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpeific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From HarmfulSubstancesSubstances | Mass portion of nitrogen (N) on a dry basis, %min | 46.2 |
| Apparent Density (Kg/m³)770–809 Kg/m³Free Ammonia160 PXT PPM maximumSulphates %0.0079Alkalinity %0.022Arsenic %10ppmCadmium3ppmMercury0%Selenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity- 1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Mass portion of Biuret, %, max | 0.71 |
| Free Ammonia160 PXT PPM maximumSulphates %0.0079Alkalinity %0.022Arsenic %10ppmCadmium3ppmMercury0%Selenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical StateSolid at 20 °C, 101 KPA White GranulesSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Ferrum % | 0.0007 |
| Sulphates %0.0079Alkalinity %0.022Arsenic %10ppmCadmium3ppmMercury0%Sclenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity- 1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Apparent Density (Kg/m ³) | 770–809 Kg/m ³ |
| Alkalinity %0.022Arsenic %10ppmCadmium3ppmMercury0%Sclenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Free Ammonia | 160 PXT PPM maximum |
| Arsenic %10ppmCadmium3ppmMercury0%Selenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Sulphates % | 0.0079 |
| Cadmium3ppmMercury0%Selenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Alkalinity % | 0.022 |
| Mercury0%Selenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Arsenic % | 10ppm |
| Selenium0.4ppmChromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Cadmium | 3ppm |
| Chromium430ppmInsoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity- 1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Mercury | 0% |
| Insoluble (ppm)20Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Selenium | 0.4ppm |
| Granulation0.85–3.35 mm not less than 90%Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity- 1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Chromium | 430ppm |
| Physical StateSolid at 20 °C, 101 KPA White GranulesPhysical PresentationWhite GranularSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Insoluble (ppm) | 20 |
| Physical PresentationWhite GranularSpecific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Granulation | 0.85–3.35 mm not less than 90% |
| Specific Gravity-1.335t/mMolecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Physical State | Solid at 20 °C, 101 KPA White Granules |
| Molecular Weight60.065Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Physical Presentation | White Granular |
| Critical/relative Humidity (30 °C)73%Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Specific Gravity | – 1.335t/m |
| Solubility in water at 20 °C100gm/100ml of waterAnti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Molecular Weight | 60.065 |
| Anti-Caking AgentFree Floating Treated Against Anti-Caking TreatmentAdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Critical/relative Humidity (30 °C) | 73% |
| AdditiveNonePH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Solubility in water at 20 °C | 100gm/100ml of water |
| PH (10 wt% solution)7.5–10.0 UnitsMoisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Anti–Caking Agent | Free Floating Treated Against Anti-Caking Treatment |
| Moisture (determined by Fischer method), % max:0.5% max by method of dryingDimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Additive | None |
| DimensionLess than 1 mm: AbsenceMelting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | PH (10 wt% solution) | 7.5–10.0 Units |
| Melting Point132 °CColorStandard White or Pure WhiteQualityFree Flowing, Non Clotted, Free From Harmful Substances | Moisture (determined by Fischer method), % max: | 0.5% max by method of drying |
| Color Standard White or Pure White Quality Free Flowing, Non Clotted, Free From Harmful Substances | Dimension | Less than 1 mm: Absence |
| Quality Free Flowing, Non Clotted, Free From Harmful Substances | Melting Point | 132 °C |
| Quality Substances | Color | Standard White or Pure White |
| Salinity Index 75.4 | Quality | |
| | Salinity Index | 75.4 |
| 2 to 5 mm 95% | 2 to 5 mm | 95% |
| 1 to 4 mm – | 1 to 4 mm | _ |



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HUDSON OIL CORPORATION

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Guaranteed Specification – Prilled

| COMPOSITION | SPECIFICATION |
|---|--|
| Urea Assay (wt %) | 98.0 min |
| Mass portion of nitrogen (N) on a dry basis, %min | 46.2 |
| Mass portion of Biuret, %, max | 0.71 |
| Ferrum % | 0.0007 |
| Apparent Density (Kg/m ³) | 770–809 Kg/m ³ |
| Free Ammonia | 160 PXT PPM maximum |
| Granulation | 0.85–3.35 mm not less than 90% |
| Sulphates % | 0.0079 |
| Alkalinity % | 0.022 |
| Arsenic % | 10ppm |
| Cadmium | 3ppm |
| Mercury | 0% |
| Selenium | 0.4ppm |
| Chromium | 430ppm |
| Insoluble (ppm) | 20 |
| Granulation | 0.85 – 3.35 mm not less than 90% |
| Physical State | Solid at 20 °C, 101 KPA White Granules |
| Physical Presentation | Spherical & Uniform in Size |
| Specific Gravity | Solid at 20 °C, – 1.335 t/m |
| Molecular Weight | 60.065 |
| Critical/relative Humidity (30 °C) | 73% |
| Solubility in water at 20 °C | 100g/100 ml of water |
| Anti-Caking Agent | Free Floating Treated Against Anti-Caking Treatment |
| Additive | None |
| PH (10 wt% solution) | 7.5–10.0 units |
| Moisture (determined by Fischer method), % max: | 0.5% max by method of drying |
| Dimension | Less than 1 mm: Absence |
| Melting Point | 132 °C |
| Color | Standard White or Pure White |
| Salinity Index | 75.4 |
| Crumbliness | 100% |
| Quality | Free Flowing, Non Clotted, Free From Harmful Substances |

Odor threshold Odorless or Slight Ammonia.

Boiling point decomposes before boiling.



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Hazardous Ingredients none according to controlled product regulations.

Physical Specification:

White, Free Flowing, non – clotted 100% free from harmful substances.

Internationally accepted standard for Urea N46%.

Free from Impurities, Sand, Dust and Certified Non-Radioactive.

Vapor density not applicable.

Floatability/Water sinks and mixes.

PH Value 8.0 – 8.5. Usage:

More than 90% of world industrial production of Urea is destined for use as Nitrogen–release fertilizer. Urea has the highest Nitrogen (N) content of all solid nitrogen content of all solid nitrogenous fertilizers in common use. Therefore, it has the lowest transportation costs per units of nitrogen nutrient. The standard crop–nutrient rating of urea is 46 - 0 - 0. The most common impurity of synthetic urea is Biuret, which impairs plant growth. Urea is usually spread at rates of between 40 and 300 Kg/HA, but rates vary. Smaller applications incur lower losses due to leaching. During summer season, Urea is often spread just before or during rain to minimize losses from volatilization (A process wherein Nitrogen (N) is lost to the atmosphere as Ammonia Gas). Due to the high Nitrogen concentration in Urea, it is very important to achieve an even spread. The application equipment must be correctly calibrated and properly used.