



**PRODUCT INFO
& DATASHEET**

Stabilised Ureas: more nitrogen available for crop growth
Keep unwanted N loss to a minimum for maximum benefit
SICUREA® 46N & SICUREA® 38N + 7.5 S
Granular ureas with urease inhibitor

Revised 2022

1/ Product name

2/ Product description

Formulation
Form
Color

3/ Composition

Total Nitrogen (N)
- Urea Nitrogen (CO(NH₂)₂NH)
- Ammoniacal N (NH₄-N)

NBPT (urease inhibitor)

Sulphur Trioxide (SO₃) water soluble
Sulphur (S) water soluble

4/ Chemical & Physical properties

Specific gravity (sg)
Bulk density
Average granule diameter
Sieve analysis
Free moisture content
Neutralising value

	SICUREA® 46N	SICUREA® 38N + 7.5 S
Formulation	Urea + urease inhibitor CO(NH ₂) ₂ NH	Urea + urease inhibitor + Sulphur CO(NH ₂) ₂ +SO ₃
Form	granular	granular
Color	green	green
Total Nitrogen (N)	46%	38%
- Urea Nitrogen (CO(NH ₂) ₂ NH)	46%	31.40%
- Ammoniacal N (NH ₄ -N)	-	6.60%
NBPT (urease inhibitor)	0.25%	0.25%
Sulphur Trioxide (SO ₃) water soluble	-	18.75%
Sulphur (S) water soluble	-	7.5%
Specific gravity (sg)	740 kg/m ³	780 kg/m ³
Bulk density	780 kg/m ³	820 kg/m ³
Average granule diameter	3.2mm+/-0.2mm (D50)	3.2mm+/-0.2mm (D50)
Sieve analysis		max. 1% < 1.6mm
Free moisture content	max. 0.3%	max. 0.3%
Neutralising value	-46 (agricultural land) -37 (grassland)	

5/ Packing

- big bags of 500 kg (for trucking only)
- 40 kg wpp + pe SICO bags (loose bags without pallets)
- a) SICUREA 46N: about 20.8 MT/20' fc
- b) SICUREA 38N + 7.5 S: about 22 MT/20' fcl
- bulk in container or bulk truck

6/ Remark

SICUREA is ao. used a lot in fertilisation of rice, to avoid the volatilisation of Nitrogen (N) while remaining on the soil during some weeks after dry seeded rice and before being put under water.

7/ Sales Rationale

Every soil contains the urease enzyme.

As soon as urea is applied this enzyme breaks down urea into ammonium.

During this conversion there is a local increase in the pH around the granule.

If this pH level exceeds 7, part of the ammonium formed is converted into ammonia gas which evaporates, or in other words volatilises.

The degree of volatilisation depends on the soil pH, temperature and moisture.
Under European conditions the volatilisation is on average 26% for surface application.
An urease inhibitor prevents this volatilisation.

SICUREA is urea that has been treated with an urease inhibitor (NBPT).

As soon as SICUREA is applied the urease inhibitor delays the conversion of urea into ammonium.

As a result, the pH around the granule stays below pH 7.

The minimal pH rise means that the nitrogen stays in the stable ammonium form which does not volatilise.

More nitrogen is available for crop growth.

SICUREA delivers more value for money per kg real crop-available nitrogen than untreated urea.

Your investment in nitrogen delivers the maximum benefit to crop growth and limits the environmental impact as well !

