



**PRODUCT INFO
& DATASHEET**

EXTRA SALES RATIONALE

SICO-SRN 28

*Slow Release Methylene Urea Nitrogen fertiliser solution,
straight fluid fertiliser, 28% total N (w/w) = 35% total N (w/v)*

Made in E.U. / Belgium

updated 11/2022

1. PRODUCT DESCRIPTION

SICO-SRN 28 is a liquid product resulting from the polymerization of urea, belonging to the class of slow release nitrogen liquid fertilizers based on urea-formaldehyde (methylene urea), permitted in European legislation with Regulation (EC) n° 2003/2003 dated 13/10/03.

Its use is not limited to simply fertilizing the land but covers a broader spectrum, also being able to be used in fertirrigation and leaf manuring of crops, as a dust removal agent in physical mixes of granular fertilizers (bulk blended) or as a source of slow release nitrogen in complex compounds, whether in granules or pellets.

2. BASIC CHARACTERISTICS

SICO-SRN 28 is as a clear or slightly opalescent liquid, with a slightly ammoniac smell and slightly sticky to the touch, with the following basic characteristics.

Parameters	Unit of measurement	Values	Analytical method
p H a t 20 °C	-	9 ÷ 11	E N 1245
Viscosity	mPa.s %	10 ÷ 50	EN 12092
Solid content	%	63÷67	EN 827
Total nitrogen	%	28÷29	Method 2.3
Ureic nitrogen	%	12 max.	Method 2.6.1
Methylene-urea nitrogen	%	16÷17min.(*)	-
Stability	-	see point 4.2	-
Compatibility in water	-	see point 3.	-

(*) The methylene-urea nitrogen is obtained by the difference between total nitrogen and ureic nitrogen since there is no official method of direct analysis.

NOTE: The parameters reported must be considered as characteristic values and not as reference specifications.

Specification parameters and values are reported in special " FINISHED PRODUCT SALES SPECIFICATIONS " available from our Sales Department.

3. USE

SICO-SRN 28 is applied as it is for manuring carried out:

- * on crop-free land (under pre-seeding or pre-transplanting);
- * during pre-emergence of sown crops (in the interval between seeding and emergence of the seedlings);
- * during post-emergence of autumn-winter cereals;
- * along the rows of arboreal crops and vines, respecting the stated doses and taking care to direct the jets onto the soil near the plants;
- * on stubble to aid decomposition when buried;
- * on leaves (leaf manuring); (eg 25 liter dose is diluted in 250/350 liter of water therefore diluted solution is nearly neutral and readily receivable via stoma and cuticula carriers to be translocated inside the plant canopy.)
- * during fertirrigation.

In the use illustrated above, SICO-SRN 28 can also be diluted with water, when this becomes necessary to improve the uniformity of spreading the product on the field (for instance, when mixing with weed killers).

Whereas, the product is normally diluted with water in the case of fertirrigation and leaf manuring, the concentration of the relative mixes depends on the crop, time of application, type of system, water quality, characteristics of the soil and climatic and agronomic conditions of use.

4. HANDLING AND STORAGE

4.1 Handling

The product is not hazardous. It is however advisable to use gloves and protective eyewear; in the event of accidental contact wash the affected parts with plenty of water. When transferring the fluid from the tanker to the storage reservoir and from here to smaller containers it is important to prevent the pump from drawing in air, causing gas to gurgle in the mass of the product; this phenomenon can cause early instability.

Any information in this publication is believed to be accurate and is given in good faith, but is for the customer to satisfy itself of the suitability for its own particular purpose. No representation, warranty or guarantee is made to its accuracy, reliability or completeness.

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Prevent the product from remaining in contact with air for a long time: it is therefore necessary to keep all SICO-SRN 28 storage containers closed.

4.2 Stability Under Storage

SICO-SRN 28 is a chemically stable product that can be conserved for several months if kept at a temperature of between **0 and + 30 °C** .

The wrong storage temperature, especially under 0 °C and contact with other substances can accelerate the phenomenon of polymerization, which manifests itself either with a progressive increase in viscosity or via the formation of flakes or precipitate. In these cases, if taken in time, the product can be completely recovered by simply heating while stirring.

SICO-SRN 28 is formulated to be able to be handled for at least 12 months if conserved at temperatures of between **+ 5 and + 25 °C in a closed container**.

Note: An increase in the viscosity of SICO-SRN 28, due to prolonged storage, doesn't alter the product's fertilizing characteristics, but only makes handling more problematical. In this case it is recommended to add small amounts of water while stirring immediately before spreading in the field. In this phase it is possible to see the formation of micro- flakes that are easily kept in suspension by stirring.

Storage can take place in fibreglass-reinforced plastic or carbon steel reservoirs that are perfectly clean and free of residues of other substances, protected from direct exposure to sunlight and from the cold.

During storage, the containers must, as far as possible, remain closed.

4.3 Compatibility with other substances

The general precautions to follow in case of contact with other products, whether these are leftovers in the storage reservoirs or raw materials to mix with SICO-SRN 28, are the following:

- free acids or salts with a strongly acid reaction (pH < 4.0) are to be avoided as they would alter the characteristics of the product;
- strong alkalis (sodium carbonate, potash) are also to be avoided because, besides giving off ammonia, they could cause the product to age early: in the event of contact with strong alkalis and concentrates there is moreover the risk of causing a violent reaction with considerable heat being generated;
 - do not mix with concentrated saline solutions (e.g. KCl, KNO₃, K₂SO₄) to avoid losing the stability of the compound;
 - any extemporaneous additions of weed killers and other phyto-chemicals are possible, provided that the stability of the relevant mixtures are verified beforehand. These mixes must anyhow be prepared immediately prior to application on the field. The chemical-physical stability of the combinations prepared in this way doesn't necessarily imply their agronomic compatibility (absence of phyto-toxicity and maintenance of herbicidal effectiveness), which must be tested beforehand on small surfaces;
- SICO-SRN 28 is incompatible with herbicidal mixtures containing white oil: this combination produces strong phytotoxicity on treated crops; similarly, it must not be used in leaf treatments in combination with cupric salts and sulphur. Leaf application is moreover not advised, even at low dosages, together with the following weed killers: Safari on sugar beet and Merlin on corn;
- in leaf treatments with micro-elements in a concentrated form it can induce phytotoxicity, depending on the crop and its phenological state: for this reason it is recommended to make a small test and wait for the crop's response; only after 5 ÷ 6 days is it possible to operate on a large scale.

Anything not expressly mentioned in this paragraph must be verified beforehand on a small scale, paying attention to the methods of mixing, the times and the temperatures. Anyhow, avoid leaf treatment of crops in a state of stress due to water and conditions of insolation.

5. CLEANING THE EQUIPMENT

This is done by simply using running water; the wash water can be reused several times for cleaning and then recovered for fertilizing.

6. PACKING

- In 1000 ltr IBC/ - 1 IBC = 1000 ltr = 1250 kg / - 16 IBC = 16,000 ltr = 20 MT per 20ft container /

- 20 IBC = 20,000 ltr = 25 MT per 40ft container

Min. order = 1 x 20ft container.

For whatever not directly presented in this sheet, SAP International Corporation is interested in discussing, appraising and, if necessary, suggesting different approaches to solve the individual problems that may be submitted to it.

Note: the information presented in this sheet is the result of direct observations and practical experience. Nevertheless, since Sap International Corporation cannot have or keep under control all the operating conditions and parameters at the user's premises, it will not be held responsible for the improper use of such information.