Explanation of the Slow release Nitrogen

Please find attached the chemical structure of SRN contained with 28-0-0, 20-4-8 and Tricard 7-0-18.

The triazone ring structure is the important part of the slow release on Nitrogen. It is temperature and moisture dependent to break down and occurs more quickly in warm moist conditions than it does in cool dry conditions. The nitrogen in the ring will normally take at least 8 weeks to be release and will most likely be released in short chain urea molecules. Since the rings break down at different rates the N is released over time not all at once. As this happens normal nitrification will occur. As the urea breaks down the nitrogen is converted to nitrite and is combined with water by Nitrobacter bacteria to form nitrate which is the form of nitrogen that plants actually take up. The longer before the ring structure breaks down the slower the release of the nitrogen contained in that ring.

 $2 NO_2 + O_2 = 2 NO_3$

This is a very simple overview of the process but hopefully it will help you understand what takes place to make Trisert releases its N over time instead of all at once.



5-Methyleneuriedo-2-oxohexahydro-s-triazone