

TECHNICAL DATA SHEET (TDS)

Product	FROST-WAR	Document	Technical Data Sheet
Category	Frost-preventive potassium, magnesium and sulphur bio-activator	Code	CEON-TDS-81-R05
Catalogue source	CEON catalogue PDF page 84	Status	Technical publication copy - final regulatory review required

1. Product identity and technical positioning

A liquid cold-stress support formulation combining potassium, magnesium, sulphur, free amino acids and salicylic acid. It is positioned for preventive use before frost events and for recovery support during cold-stress periods.

Intended technical function

Frost-preventive potassium, magnesium and sulphur bio-activator.

Physical form

Liquid concentrate. Appearance, density, pH, moisture and particle-size values are controlled by the approved batch specification and shall be reported on the batch COA.

2. Guaranteed analysis

Parameter	Specification
Water-soluble Potassium Oxide (K ₂ O)	11% w/v
Water-soluble Magnesium Oxide (MgO)	4% w/v
Water-soluble Sulphur Trioxide (SO ₃)	12% w/v
Free Amino Acids	1% w/v
Salicylic Acid	0.05% w/v

Quality-control note

Declared nutrient or active-content values are catalogue specifications. Final release requires identity, appearance and relevant analytical checks against the approved master specification. No batch result is implied by this TDS.

3. Agronomic benefits and mode of use

- Supports osmotic regulation and intracellular solute balance under cold conditions.
- Supplies potassium and magnesium for metabolic and photosynthetic functions.
- Supports cell-membrane stability and plant recovery following low-temperature stress.
- Promotes bud and reproductive-stage resilience where frost risk is forecast.
- Designed as a preventive programme input rather than a substitute for physical frost-protection measures.

4. Application programme

- Extreme frost guidance: at approximately 1 C to 0 C, 1,000 mL/100 L water.
- At approximately 1 C to -3 C, 1,000 mL/50 L water.
- At approximately -3 C to -5 C, 1,000 mL/25 L water.
- Root-zone risk management: 20-30 L/ha by drip irrigation.
- General foliar use: 2-3 L/100 L water; catalogue guidance also describes 500 mL/100 L water at 15-20 day intervals during harvest periods.

Application principles

- Calibrate injection or spray equipment before use.
- Base the final rate on crop, growth stage, water quality, soil/leaf analysis, climatic conditions and local agronomic advice.
- Do not exceed the catalogue rate or the legal label of any tank-mix partner.
- Ensure uniform distribution and adequate water volume for the intended application.

5. Compatibility and tank-mixing

Apply preventively before forecast frost whenever possible. Confirm crop tolerance at the intended concentration, especially at the strongest emergency rates. Conduct a jar test before tank mixing and do not combine with strongly alkaline materials or incompatible crop-protection concentrates.

Recommended sequence

- Fill the clean tank partly with water and start agitation.
- Add water conditioners first where applicable, followed by dry products, suspension products, soluble concentrates and emulsifiable concentrates according to partner labels.
- Add organosilicone adjuvants near the end of filling.
- Complete with water and maintain appropriate agitation.

6. Packaging, storage and handling

Packaging: 1 L, 5 L, 10 L and 20 L packs.

- Keep in the original, tightly closed and correctly labelled container.
- Store in a cool, dry and ventilated area away from direct sunlight, frost, excessive heat and incompatible materials.
- Keep biological products away from disinfectants and conditions that reduce viability.
- Prevent contamination of food, feed, seed and drinking water.
- Use appropriate gloves and eye protection during handling.

7. Technical limitations

- Performance depends on correct diagnosis, dose, timing, water quality and application coverage.
- Catalogue benefits are technical positioning statements and are not a guarantee of yield.
- Pesticidal or biological-control uses are subject to local registration, approved label and maximum-residue/worker-safety requirements.
- This document does not replace local legal labelling, product registration, crop-protection labels or professional agronomic advice.

8. Document control

Source reference: CEON Products Catalogue, PDF page 84. This Rev.05 document expands the catalogue information into a website/distributor technical format. Regulatory classification, local-language label, shelf life and market-specific claims must be approved before commercial issue.