

SAFETY DATA SHEET

Substain-N® 26-0-0

Section 1 – Identification

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| Product | Substain-N® 26-0-0 | Recommended Use: |
| | | Used as a fertilizer in agricultural applications. |
| Manufacturer | TradeMark Nitrogen Corp. | |
| Address | 1216 Old Hopewell Road, Tampa, FL 33619 | |
| Phone | (813) 626-1181 | |
| 24 Hour Emergency Contact | Chemtrec (800) 424-9300 | |

Section 2 – Hazard Identification



GHS07

Signal Word: **WARNING**

Hazard Statements

- H303 May be harmful if swallowed
- H315 Causes skin irritation
- H320 Causes eye irritation
- H335 May cause respiratory irritation

Precautionary Statements:

- P101: If medical advice is needed, have product container or label at hand.
- P102: Keep out of reach of children.
- P103 Read label before use
- P264 Wash hands thoroughly after handling
- P280 Wear eye protection, protective clothing, protective gloves
- P301+P330 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell
- P302+P352 IF ON SKIN: Wash with plenty of water
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P332+P313 If skin irritation occurs: Get medical advice / attention
- P337+P313 If eye irritation persists: Get medical advice / attention
- P501 Dispose of contents / container according to local, regional, national, and international regulations

Section 3 – Composition

| Ingredients | Component | CAS. No. | EINECS No. |
|------------------------------------|---|-------------|------------|
| A proprietary aqueous solution of; | Urea (CO(NH ₂) ₂) | 57-13-6 | 200-315-5 |
| | Triazone N-[[tetrahydro-4-oxo-1,3,5-triazin-1(2H)-yl)methyl] | 146963-06-6 | 230-406-5 |
| | Water | 773-18-5 | 231-791-2 |

Section 4 – First Aid Measures

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| Inhalation | If inhaled: Remove person to fresh air and keep comfortable for breathing. Provide artificial respiration if necessary. Seek medical attention if necessary. |
| Skin Contact | If on skin (or hair): Take off all contaminated clothing. Rinse skin with soap and water for at least 15 minutes. Seek medical attention if irritation persists. Wash contaminated clothing before reuse. |
| Eye Contact | If in eyes: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists. |
| Ingestion | If swallowed: Do NOT induce vomiting unless directed to do so by medical personnel. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Never give anything by mouth to an unconscious person. Seek medical attention. |
| Acute Health Hazards | May cause mild eye irritation. Prolonged skin contact may cause irritation with redness and itching. Inhalation of mists may cause upper respiratory tract irritation. Swallowing large amounts may cause gastric irritation. |
| Chronic Health Hazards | None expected under normal conditions. Prolonged skin contact may result in dermatitis (inflammation and redness of skin). |

Section 5 – Fire Fighting Measures

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| Suitable Extinguishing Techniques & Equipment | Not combustible or reactive, use extinguishing media suitable for surrounding material. Wear self-contained breathing apparatus and full protective gear. |
| Chemical Hazards From Fire | In a fire this material may decompose and produce carbon oxides, oxides of nitrogen and ammonia. |
| Special Fire Fighting Procedures | Use extinguishing agent most appropriate to surrounding materials. |
| NFPA Rating | Health - 1 (Slight) Fire - 0 (Least) Reactivity - 0 (Least) |
| Other | Do not allow run-off from fire fighting to enter drains or water courses. |



Section 6 – Accidental Release Measure

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| Personal Precautions | Avoid splashing. Prevent exposure to spilled material with the use of proper PPE. |
| Protective Equipment | PPE should include gloves, goggles and protective clothing. |
| Containment | Avoid release to environment. Control the flow of product using dikes of soil, sand bags or other commercially available inert sorbent socks or booms. |
| In Case of Spill | Absorb product with inert absorbent. Avoid splashing or spraying. Contain and pick up spill in diked area. Prevent discharge to sewers or water ways. If uncontaminated, recover and re-use. |

Section 7 – Safe Handling & Storage

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| Precautions for Safe Handling & Storage | Store in a well ventilated cool dry place. Containers should be kept closed and properly labeled. Keep away from open flames, hot surfaces and sources of ignition. No smoking, eating or drinking while using this product. Avoid all unnecessary exposure. Do not breathe mist, vapor or spray. Store IBC's and other similar containers at moderate temperature (less than 105F / 41C). Keep out of direct sunlight. |
| Incompatibility | Store away from incompatible materials. |

Section 8 – Exposure Controls / Personal Protection

| Exposure Limits | Component | Permissible Exposure Limit | Threshold Limit Value | Short Term Exposure Limit | Immediately Dangerous to Life or Health |
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| | Urea (CO(NH ₂) ₂) | Not Established | Not Established | Not Established | Not Established |
| | US. Workplace Environmental Exposure Level (WEEL) Guides: | | | | |
| | Component: | Type: | Value: | Form: | |
| | Urea (CAS 57-13-6) | TWA | 10 mg/m ³ | | |
| Engineering Controls | Local or general exhaust. Eyewash and emergency shower facilities should be available. | | | | |

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| Personal Protective Equipment | Eyes | Chemical safety goggles or safety glasses with side shields. | | | |
| | Hands | Impervious chemical protective gloves. | | | |
| | Respiratory | None required under normal conditions. NIOSH approved respirator if there is a mist of the product. | | | |
| | Protective Clothing | | | | |
| |  |  |  |  | |
| | Gloves | Protective Clothing | Goggles | Respiratory Protection | |

Section 9 – Physical & Chemical Properties

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| Appearance and Odor | Clear, colorless liquid may have a slight amine-like odor. | Specific Gravity | 1.29 @ 68°F (20°C) (typical) |
| Boiling Point | 219°F at 1 atmosphere (104.4°C) | Molecular Weight | Not applicable |
| Freezing Point | No Data Available | Solubility in Water | Miscible in water |
| Vapor Pressure | No Data Available | Flash Point | Not flammable |
| Weight per Gallon | 10.7 lbs/gal @ 68°F (typical) | pH | 9 - 11 (typical) |
| Gallons per Ton | 187 gal / ton | Salt-Out Temp | 0°F (-15 - -17°C) |
| Flammability Limits | Not applicable | Auto Ignition Temp | Not Flammable |
| UEL | Not applicable | LEL | No Data Available |

Section 10 – Stability & Reactivity

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| Reactivity | Product is not reactive under normal conditions. Avoid interaction with heat (flames), oxidizers, acids or alkalis. |
| Stability | Product is stable under normal conditions. |
| Hazardous Reactions | If mixed with chlorine or hypochlorites, it may form nitrogen trichloride which may explode spontaneously in air. |
| Conditions to Avoid | Keep away from direct heat sources. Avoid direct sunlight. Avoid extreme high temperatures and extreme low temperatures. Keep from freezing. |

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| Incompatible Materials | Strong oxidizing materials, strong acids, halogenated compounds, copper, zinc and their alloys, including brass, bronze and galvanized materials. Contact your sales representative or a metallurgical specialist to ensure compatability with your equipment. |
| Hazardous Decomposition Products | Extreme heat may cause decomposing to carbon oxides, ammonia and nitrogen oxides. |

Section 11 – Toxicology Information

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| Routes of Exposure | Inhalation, ingestion | |
| Symptoms and Signs of Exposure | Eyes | Mild eye irritation. |
| | Skin | Mild irritant. |
| | Inhalation | May irritate respiratory tract and mucous membranes. |
| | Ingestion | Can cause abdominal pain, vomiting, diarrhea and methemoglobinemia. |
| Long Term Effects | Methemoglobinemia is the primary long-term health effect of over-exposure. | |
| Toxicity | No limits have been set for this material. | |

| Acute Toxicity | Product | Criteria | Species | Dose |
|--|-----------------------|---|-----------------------|---------------|
| | Urea | LD50 Oral | Rat - Male, Female | 8,471 mg / kg |
| Specific Target Organ Toxicity (Single Exposure) | No Data Available | | | |
| Specific Target Organ Toxicity (Repeated Exposure) | No Data Available | | | |
| Exposure Symptoms | | | | |
| | Eye contact: | Irritation, watering | | |
| | Inhalation: | May cause respiratory irritation | | |
| | Skin Contact: | May cause mild skin irritation | | |
| | Ingestion: | Over exposure by ingestion is unlikely under normal working conditions. Adverse symptoms may include nausea or vomiting, stomach pains, diarrhea. | | |
| Potential Chronic Health Effects | | | | |
| | General | No known significant effects or critical hazards | | |
| | Carcinogenicity | Not classified | | |
| | Mutagenicity | Not classified | | |
| | Teratogenicity | Not classified | | |
| | Developmental Effects | Not classified | | |
| | Fertility Effects | Not classified | | |

California Prop 65 WARNING: This product is not listed on the California Prop 65 database. For more information go to www.p65warnings.ca.gov

Section 12 – Ecological Information

Water High concentrations may be harmful to fish and other aquatic organisms.

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| Ecotoxicity | Product | Criteria | Result | Species | Exposure |
| | Urea | Acute EC50 | 3910000 µg/l fresh water | Daphnia - Daphnia Magna - Neonate | 48 hours |
| | | Acute LC50 | 1,000 mg/l Marine Water | Crustaceans - Chaetogammaru s marinus - young | 48 hours |
| | | Acute LC50 | 5,000 µg/l fresh water | Fish - Colisa Fasciata - Fingerling | 96 Hours |
| | | Chronic NOEC | 2 g/L Fresh water | Fish - Heteropneustes fossils | 30 days |
| | | LC50 | >6810 mg/l | Leuciscus Idus | 96 Hours |

Persistence and Degradability Product is biodegradable under aerobic & anerobic conditions.

Bioaccumulative potential The potential for bioconcentration in aquatic organisms is expected to be low.

Mobility in soil No data available for this product.

Other adverse effects Harmful to aquatic life. Harmful to the environment if released in large quantities. Excessive nutrient runoff to a body of water may result in eutrophication.

Section 13 – Disposal Considerations

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| Waste | This material is harmful to the aquatic environment. Keep out of sewers and waterways. Disposal must be done in accordance with local, state and federal environmental regulations. Place waste in an appropriate container with correct labeling. |
| Additional Information | Dispose of used containers at an approved waste handling facility. Empty containers may contain residue of the product, follow label warnings even after container is emptied. |

Section 14 – Transport Information

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| DOT | Not regulated as dangerous goods |
| IMDG | Not regulated as dangerous goods |
| IATA | Not regulated as dangerous goods |
| TDG | Not regulated as dangerous goods |
| Mexico Classification | Not regulated as dangerous goods |

Section 15 – Regulatory Information

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| United States - SARA Hazard Category | This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following categories: |
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| | Fire - No | Pressure - No | Reactive - No | Acute - No | Chronic - No | |
|----------------------------|--|---------------|------------------|----------------|--------------|-----|
| SARA Title III Information | This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: | | | | | |
| | Chemical | CAS No. | CERCLA RQ (lbs.) | SARA Reporting | | |
| | | | | 302 | 304 | 313 |
| | Urea | 57-13-6 | N/A | N/A | N/A | N/A |

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| CERCLA / Superfund, 40 CFR Part 117, 302 | If this product contains components subject to substances designated as CERCLA reportable Quantity (RQ) Substances, it will be designated in the above table with the RQ value in pounds. If there is a release of RQ Substance to the environment, notification to the National Response Center, Washington DC (800-424-8802) is required. |
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| TSCA | All components of this product are listed on the Active TSCA inventory. |
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Section 16 – Other Information

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| Issue Date | 7/3/2025 |
| Date of Revision | July 2025 SDS updated to include new CAS number and formulation. May 2024 revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet Global Harmonization Standards. |
| Disclaimer | The information contained in this SDS refers only to the specific material designated and does not relate to any process or use with any other materials. This information is furnished free of charge and is based on data believed to be accurate and reliable as of the date hereof. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Since actual use is beyond our control, no warranty, expressed or implied, and no liability is assumed by TradeMark Nitrogen Corp. in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents. TradeMark Nitrogen Corp. assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material. |