Certified Wastewater Nutrients C

High-Purity Standards

Chemwatch Hazard Alert Code: **1**

Catalogue number: **CWW-N-C**
Version No: **1.1**
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **09/28/2017**
Print Date: **09/28/2017**
S.GHS.USA.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Certified Wastewater Nutrients C
Synonyms	CWW-N-C
Other means of identification	CWW-N-C

Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	**High-Purity Standards**
Address	PO Box 41727 Charleston, SC 29423 United States
Telephone	843-767-7900
Fax	843-767-7906
Website	highpuritystandards.com
Email	Not Available

Emergency phone number

Association / Organisation	**INFOTRAC**
Emergency telephone numbers	1-800-535-5053
Other emergency telephone numbers	1-352-323-3500

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

Classification	Carcinogenicity Category 2

Label elements

Hazard pictogram(s)	
SIGNAL WORD	**WARNING**

Hazard statement(s)

H351	Suspected of causing cancer.

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.

Precautionary statement(s) Response

Continued...

P308+P313	IF exposed or concerned: Get medical advice/attention.

Precautionary statement(s) Storage

P405	Store locked up.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7632-00-0	0.125	sodium nitrite
7631-99-4	0.125	sodium nitrate
7558-79-4	0.1	sodium phosphate, dibasic
7732-18-5	Balance	water
12125-02-9	0.25	ammonium chloride

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 FIRST-AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with eyes: ▸ Wash out immediately with water. ▸ If irritation continues, seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.

Special protective equipment and precautions for fire-fighters

Fire Fighting	▸ Alert Fire Brigade and tell them location and nature of hazard.
Fire/Explosion Hazard	▸ Non combustible. May emit poisonous fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Continued...

Minor Spills	▸ Clean up all spills immediately.
Major Spills	Moderate hazard.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	▸ Avoid all personal contact, including inhalation.
Other information	

Conditions for safe storage, including any incompatibilities

Suitable container	▸ Polyethylene or polypropylene container.
Storage incompatibility	None known

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	ammonium chloride	Ammonium chloride, Ammonium muriate fume, Sal ammoniac fume	10 mg/m3	20 mg/m3	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	ammonium chloride	Ammonium chloride, fume	10 mg/m3	20 mg/m3	Not Available	TLV® Basis: Eye & URT irr

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
sodium nitrite	Sodium nitrite	6.4 mg/m3	71 mg/m3	240 mg/m3
sodium nitrate	Sodium nitrate	4.1 mg/m3	45 mg/m3	270 mg/m3
ammonium chloride	Ammonium chloride	20 mg/m3	110 mg/m3	330 mg/m3

Ingredient	Original IDLH	Revised IDLH
sodium nitrite	Not Available	Not Available
sodium nitrate	Not Available	Not Available
sodium phosphate, dibasic	Not Available	Not Available
water	Not Available	Not Available
ammonium chloride	Not Available	Not Available

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
Personal protection	
Eye and face protection	▸ Safety glasses with side shields ▸ Chemical goggles.
Skin protection	See Hand protection below
Hands/feet protection	The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. ▸ Wear chemical protective gloves, e.g. PVC.
Body protection	See Other protection below
Other protection	▸ Overalls.
Thermal hazards	Not Available

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Colourless

Physical state	Liquid	**Relative density (Water = 1)**	Not Available
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available

Continued...

pH (as supplied)	Not Available	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Available
Flash point (°C)	Not Available	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Available	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Available	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Available	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water (g/L)	Miscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▸ Unstable in the presence of incompatible materials.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Not normally a hazard due to non-volatile nature of product
Ingestion	The material has **NOT** been classified by EC Directives or other classification systems as "harmful by ingestion". The lethal oral dose of nitrite has been variously reported as between 0.7 and 6 grams (approximately 10-100 milligrams/kilogram body weight).
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Chronic	There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Animal testing to see whether nitrites caused cancer proved inconclusive.

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TOXICITY	IRRITATION
Not Available	Not Available

sodium nitrite

TOXICITY	IRRITATION
Inhalation (rat) LC50: 0.0055 mg/l/4H[2]	Eye (rabbit): 500 mg/24hr - mild
Oral (rat) LD50: 157.9 mg/kg[2]	

sodium nitrate

TOXICITY	IRRITATION
dermal (rat) LD50: >5000 mg/kg[1]	Not Available
Oral (rat) LD50: 1267 mg/kg[2]	

sodium phosphate, dibasic

TOXICITY	IRRITATION
dermal (rat) LD50: >2000 mg/kg[1]	Eye (rabbit): 500 mg/24h - mild
Oral (rat) LD50: >500 mg/kg[1]	Skin (rabbit): 500 mg/24h - mild

water

TOXICITY	IRRITATION
Not Available	Not Available

ammonium chloride

TOXICITY	IRRITATION

Continued...

	dermal (rat) LD50: >2000 mg/kg[1]	Eye (rabbit): 100 mg SEVERE
	Oral (rat) LD50: 1650 mg/kg[2]	Eye (rabbit): 500 mg/24h SEVERE

Legend:	*1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*

SODIUM NITRITE	Tumorigenic - Carcinogenic by RTECS criteria.
SODIUM PHOSPHATE, DIBASIC	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
WATER	No significant acute toxicological data identified in literature search.
AMMONIUM CHLORIDE	The material may produce severe irritation to the eye causing pronounced inflammation.
SODIUM NITRITE & SODIUM PHOSPHATE, DIBASIC	The material may be irritating to the eye, with prolonged contact causing inflammation.
SODIUM NITRATE & SODIUM PHOSPHATE, DIBASIC	Asthma-like symptoms may continue for months or even years after exposure to the material ends.

Acute Toxicity	⊘	**Carcinogenicity**	✔
Skin Irritation/Corrosion	⊘	**Reproductivity**	⊘
Serious Eye Damage/Irritation	⊘	**STOT - Single Exposure**	⊘
Respiratory or Skin sensitisation	⊘	**STOT - Repeated Exposure**	⊘
Mutagenicity	⊘	**Aspiration Hazard**	⊘

Legend: ✘ *– Data available but does not fill the criteria for classification*
✔ *– Data available to make classification*
⊘ *– Data Not Available to make classification*

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

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ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

sodium nitrite

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	0.048mg/L	4
EC50	48	Crustacea	ca.12.5100mg/L	1
EC50	72	Algae or other aquatic plants	>100mg/L	2
NOEC	2	Fish	0.02mg/L	4

sodium nitrate

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	573mg/L	4
NOEC	2880	Fish	1.6mg/L	4

sodium phosphate, dibasic

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

water

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available

ammonium chloride

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	0.08mg/L	4
EC50	48	Crustacea	0.261mg/L	4
EC50	72	Algae or other aquatic plants	166.5mg/L	4
NOEC	720	Fish	0.006mg/L	4

Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Continued...

For Nitrate/Nitrite
Environmental Fate: Nitrates form from nitrate or ammonium ions by micro-organisms in soil, water, sewage and the digestive tract.
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium nitrite	LOW	LOW
sodium nitrate	LOW	LOW
water	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
sodium nitrite	LOW (LogKOW = 0.0564)
sodium nitrate	LOW (LogKOW = 0.209)
water	LOW (LogKOW = -1.38)

Mobility in soil

Ingredient	Mobility
sodium nitrite	LOW (KOC = 23.74)
sodium nitrate	LOW (KOC = 14.3)
water	LOW (KOC = 14.3)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	▸ Containers may still present a chemical hazard/ danger when empty. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. ▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ▸ Recycle wherever possible.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

SODIUM NITRITE(7632-00-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Massachusetts - Right To Know Listed Chemicals
US - Pennsylvania - Hazardous Substance List
US CWA (Clean Water Act) - List of Hazardous Substances
US EPCRA Section 313 Chemical List
US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

SODIUM NITRATE(7631-99-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Massachusetts - Right To Know Listed Chemicals
US - Pennsylvania - Hazardous Substance List
US - Rhode Island Hazardous Substance List
US EPCRA Section 313 Chemical List
US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

SODIUM PHOSPHATE, DIBASIC(7558-79-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Massachusetts - Right To Know Listed Chemicals
US - Pennsylvania - Hazardous Substance List
US CWA (Clean Water Act) - List of Hazardous Substances
US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Continued...

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule
US TSCA Chemical Substance Inventory - Interim List of Active Substances
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

AMMONIUM CHLORIDE(12125-02-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Alaska Limits for Air Contaminants
US - California Permissible Exposure Limits for Chemical Contaminants
US - Hawaii Air Contaminant Limits
US - Massachusetts - Right To Know Listed Chemicals
US - Michigan Exposure Limits for Air Contaminants
US - Minnesota Permissible Exposure Limits (PELs)
US - Oregon Permissible Exposure Limits (Z-1)
US - Pennsylvania - Hazardous Substance List
US - Rhode Island Hazardous Substance List
US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants
US - Washington Permissible exposure limits of air contaminants
US ACGIH Threshold Limit Values (TLV)
US CWA (Clean Water Act) - List of Hazardous Substances
US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule
US NIOSH Recommended Exposure Limits (RELs)
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES

Immediate (acute) health hazard	No
Delayed (chronic) health hazard	Yes
Fire hazard	No
Pressure hazard	No
Reactivity hazard	No

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
Sodium nitrite	100	45.4
Sodium phosphate, dibasic	5000	2270
Ammonium chloride	5000	2270

State Regulations

US. CALIFORNIA PROPOSITION 65

None Reported

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (ammonium chloride; water; sodium nitrite; sodium nitrate; sodium phosphate, dibasic)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (ammonium chloride; water; sodium nitrite; sodium nitrate; sodium phosphate, dibasic)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	*Y = All ingredients are on the inventory* *N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)*

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
sodium phosphate, dibasic	7558-79-4, 10028-24-7
ammonium chloride	12125-02-9, 152128-19-3

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit

Continued...

TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index

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end of SDS