



MATERIAL SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 07/22/2013

Version 1.1

SECTION 1. Identification

Product identifier

Catalog No. 114556

Product name Nitrate Cell Test in seawater Method: photometric 0.10 - 3.00 mg/l NO₃-N
0.4 - 13.3 mg/l NO₃⁻ Spectroquant®

NO₃⁻

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | SDS Phone Support: +1-978-715-1335 | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

Emergency telephone 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Skin corrosion, Category 1A, H314
Corrosive to Metals, Category 1, H290

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms



Signal Word
Danger

Hazard Statements

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

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Precautionary Statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309 + P310 IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

OSHA Hazards

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Chemical nature Mixture of acids.

Hazardous ingredients

Chemical Name (Concentration)

CAS-No.

sulphuric acid (>= 70 % - < 90 %)

7664-93-9

phosphoric acid (>= 5 % - < 10 %)

7664-38-2

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air. Call in physician.

Skin contact

After skin contact: wash off with plenty of water. Immediately remove contaminated clothing. If available swab with polyethylene glycol 400. Call a physician immediately.

Eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

Ingestion

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation!). Call a physician immediately. Do not attempt to neutralize.

Most important symptoms and effects, both acute and delayed

Irritation and corrosion, Cough, Shortness of breath, Risk of blindness!

Indication of any immediate medical attention and special treatment needed

No information available.

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SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

Fire may cause evolution of:

Sulfur oxides, Oxides of phosphorus

Advice for firefighters

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent and neutralizing material (e.g. Chemisorb® H⁺, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Tightly closed.

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0.4 - 13.3 mg/l NO₃⁻ Spectroquant®
NO₃⁻

Store at +15°C to +25°C (+59°F to +77°F).
The data applies to the entire pack.

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Basis	Value	Threshold limits	Remarks
<i>sulphuric acid (7664-93-9)</i>			
ACGIH	Time Weighted Average (TWA):	0.2 mg/m ³	Form of exposure: Thoracic fraction.
NIOSH/GUIDE	Recommended exposure limit (REL):	1 mg/m ³	
OSHA_TRANS	PEL:	1 mg/m ³	
Z1A	Time Weighted Average (TWA):	1 mg/m ³	
<i>phosphoric acid (7664-38-2)</i>			
ACGIH	Time Weighted Average (TWA):	1 mg/m ³	
	Short Term Exposure Limit (STEL):	3 mg/m ³	
NIOSH/GUIDE	Recommended exposure limit (REL):	1 mg/m ³	
	Short Term Exposure Limit (STEL):	3 mg/m ³	
OSHA_TRANS	PEL:	1 mg/m ³	
Z1A	Short Term Exposure Limit (STEL):	3 mg/m ³	
	Time Weighted Average (TWA):	1 mg/m ³	

Engineering measures

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Change contaminated clothing and immerse in water. Preventive skin protection Wash hands and face after working with substance.

Eye/face protection

Tightly fitting safety goggles

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

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Other protective equipment:
Acid-resistant protective clothing.

Respiratory protection
required when vapors/aerosols are generated.
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

Physical state	liquid
Color	colorless
Odor	odorless
Odor Threshold	No information available.
pH	< 1 at 68 °F (20 °C)
Melting point	No information available.
Boiling point	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	No information available.
Relative vapor density	No information available.
Relative density	1.843 g/cm ³ at 68 °F (20 °C)
Water solubility	at 68 °F (20 °C) soluble
Partition coefficient: n-octanol/water	No information available.

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Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Corrosion	May be corrosive to metals.

SECTION 10. Stability and reactivity

Reactivity

has a corrosive effect

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

A risk of explosion and/or of toxic gas formation exists with the following substances:

Violent reactions possible with:

oxyhalogenic compounds, permanganates, nitrates, carbides, combustible substances, organic solvent, acetylidene, Nitriles, nitrides, organic nitro compounds, anilines, Peroxides, picrates, lithium silicide, Water, Alkali metals, alkali compounds, Ammonia, Alkaline earth metals, alkalines, alkaline earth compounds, Metals, metal alloys, Oxides of phosphorus, phosphorus, hydrides, halogen-halogen compounds, acids

Conditions to avoid

Strong heating.

Incompatible materials

animal/vegetable tissues, Metals
Gives off hydrogen by reaction with metals.

Hazardous decomposition products

in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact

Target Organs

Eyes

Skin

Respiratory system

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teeth

Mucous membranes

Skin irritation

Mixture causes severe burns.

Eye irritation

Mixture causes serious eye damage. Risk of blindness!

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC	Group 1: Carcinogenic to humans sulphuric acid 7664-93-9
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	Known carcinogen. sulphuric acid 7664-93-9
ACGIH	A2: Suspected human carcinogen sulphuric acid 7664-93-9

Further information

Quantitative data on the toxicity of this product are not available.

Further toxicological data:

Property that must be anticipated on the basis from the components of the mixture:

After inhalation of aerosols: damage to the affected mucous membranes. After skin contact: severe burns with formation of scabs. After eye contact: burns, corneal lesions. After swallowing: severe pain (risk of perforation!), nausea, vomiting and diarrhea. After a latency period of several weeks possibly pyloric stenosis.

Further data:

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Ingredients

sulphuric acid

Acute inhalation toxicity

LC50 rat: 0.25 mg/l; 4 h (IUCLID)

Germ cell mutagenicity

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Genotoxicity in vitro

Ames test
Salmonella typhimurium
Result: negative
(HSDB)

phosphoric acid

Acute oral toxicity

LD50 rat: 1,530 mg/kg (IUCLID) (Regulation (EC) No 1272/2008, Annex VI)

Acute inhalation toxicity

LC50 rat: > 0.85 mg/l; 1 h (RTECS)

Acute dermal toxicity

LD50 rabbit: 2,740 mg/kg (IUCLID)

Skin irritation

rabbit
Result: Causes burns.
(IUCLID)

Eye irritation

rabbit
Result: Causes burns.
(IUCLID)

Sensitization

Patch test: human
Result: negative
(IUCLID)

Germ cell mutagenicity

Genotoxicity in vitro

Ames test
Result: negative
(IUCLID)

SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Other adverse effects

Additional ecological information

Harmful effect due to pH shift. Caustic even in diluted form. Neutralization possible in waste water treatment plants. Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.

Further information on ecology

Discharge into the environment must be avoided.

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Ingredients

sulphuric acid

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 29 mg/l; 24 h (IUCLID)

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

phosphoric acid

Toxicity to fish

LC50 Gambusia affinis (Mosquito fish): 138 mg/l; 96 h (External MSDS)

Toxicity to bacteria

EC50 activated sludge: 270 mg/l (IUCLID)

Biodegradability

Does not cause biological oxygen deficit.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

UN number	UN3316
Proper shipping name	CHEMICAL KIT
Class	9
Packing group	II
Environmentally hazardous	--

Air transport (IATA)

UN number	UN 3316
Proper shipping name	CHEMICAL KIT
Class	9
Packing group	II
Environmentally hazardous	--
Special precautions for user	no

Sea transport (IMDG)

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NO₃⁻

UN number UN 3316
Proper shipping name CHEMICAL KIT
Class 9
Packing group II
Environmentally hazardous --
Special precautions for user yes
EmS F-A S-P

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

SECTION 15. Regulatory information

United States of America

OSHA Hazards

Carcinogen
Target organ effects
Highly toxic by inhalation
Harmful if swallowed.
Corrosive to skin
Corrosive to eyes
Corrosive by inhalation.

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

SARA 311/312 Hazards

Acute Health Hazard
Chronic Health Hazard

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients

sulphuric acid 7664-93-9

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NO₃⁻

SARA 302

The following components are subject to reporting levels established by SARA Title III, Section 302:

Ingredients

sulphuric acid 7664-93-9

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Ingredients

sulphuric acid
phosphoric acid

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Ingredients

sulphuric acid
phosphoric acid

DEA List I

Not listed

DEA List II

Listed

Ingredients

sulphuric acid 7664-93-9

US State Regulations

Massachusetts Right To Know

Ingredients

sulphuric acid
phosphoric acid

Pennsylvania Right To Know

Ingredients

sulphuric acid
phosphoric acid
water

New Jersey Right To Know

Ingredients

sulphuric acid
phosphoric acid
water

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 07/22/2013

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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SECTION 1. Identification

Product identifier

Catalog No. 114556

Product name Nitrate Cell Test in seawater Method: photometric 0.10 - 3.00 mg/l NO₃-N

0.4 - 13.3 mg/l NO₃⁻ Spectroquant®

NO₃-1K

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

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Emergency telephone 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS-Labeling

Hazard Statements

Safety data sheet available on request.

OSHA Hazards

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Chemical nature Mixture of inorganic and organic compounds

Hazardous ingredients

Chemical Name (Concentration)

CAS-No.

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Sodium chloride (>= 30 % - < 50 %)
7647-14-5
Resorcinol (>= 5 % - < 10 %)
108-46-3

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air.

Skin contact

After skin contact: wash off with plenty of water. Remove contaminated clothing.

Eye contact

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.

Ingestion

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

CNS disorders, irritant effects

Risk of methemoglobin formation with headache, cardiac dysrhythmia, drop in blood pressure, dyspnoea and spasms, principal symptom: cyanosis (blue discoloration of the blood).

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

Fire may cause evolution of:

Sulfur oxides, Hydrogen chloride gas

Advice for firefighters

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

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Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.
Suppress (knock down) gases/vapors/mists with a water spray jet.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Tightly closed.

Store at +15°C to +25°C (+59°F to +77°F).

The data applies to the entire pack.

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NO₃-1K

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Basis	Value	Threshold limits	Remarks
<i>Resorcinol (108-46-3)</i>			
ACGIH	Time Weighted Average (TWA):	10 ppm	
	Short Term Exposure Limit (STEL):	20 ppm	
NIOSH/GUIDE	Recommended exposure limit (REL):	10 ppm	
		45 mg/m ³	
Z1A	Short Term Exposure Limit (STEL):	20 ppm	
		90 mg/m ³	
Z1A	Time Weighted Average (TWA):	10 ppm	
		45 mg/m ³	
	Short Term Exposure Limit (STEL):	20 ppm	
		90 mg/m ³	

Engineering measures

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Change contaminated clothing. Application of skin- protective barrier cream recommended. Wash hands after working with substance.

Eye/face protection

Safety glasses

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:

protective clothing

Respiratory protection

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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SECTION 9. Physical and chemical properties

Physical state	solid
Color	white
Odor	odorless
Odor Threshold	No information available.
pH	No information available.
Melting point	No information available.
Boiling point	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	No information available.
Relative vapor density	No information available.
Relative density	No information available.
Water solubility	at 68 °F (20 °C) soluble
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Bulk density	ca. 1,100 kg/m ³

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SECTION 10. Stability and reactivity

Reactivity

See below

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

no information available

Conditions to avoid

no information available

Incompatible materials

no information available

Hazardous decomposition products

in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Target Organs

Central nervous system

Skin

Eyes

Stomach

Respiratory system

cardiovascular system

Blood

spleen

Liver

Kidneys

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Acute oral toxicity

Acute toxicity estimate: 6,020 mg/kg
Calculation method

Acute dermal toxicity

absorption

Skin irritation

Possible damages: slight irritation

Eye irritation

Possible damages: slight irritation

Sensitization

Sensitization possible in predisposed persons.

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information

Quantitative data on the toxicity of this product are not available.

Further toxicological data:

Property that must be anticipated on the basis from the components of the mixture:

After uptake of large quantities:

Systemic effects:

MATERIAL SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number	114556	Version1.1
Product name	Nitrate Cell Test in seawater Method: photometric 0.10 - 3.00 mg/l NO ₃ -N 0.4 - 13.3 mg/l NO ₃ ⁻ Spectroquant® NO ₃ -1K	

CNS disorders, Risk of methemoglobin formation with headache, cardiac dysrhythmia, drop in blood pressure, dyspnoea and spasms, principal symptom: cyanosis (blue discoloration of the blood).

Causes impaired function of:

thyroid

Damage to:

Liver, Kidney, Cardiac

Further data:

Handle in accordance with good industrial hygiene and safety practice.

Ingredients

Sodium chloride

Acute oral toxicity

LD50 rat: 3,000 mg/kg (RTECS)

Acute dermal toxicity

LD50 rabbit: > 10,000 mg/kg (RTECS)

Germ cell mutagenicity

Genotoxicity in vitro

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(IUCLID)

Ames test

Result: negative

(IUCLID)

Resorcinol

Acute oral toxicity

LD50 rat: 301 mg/kg (RTECS)

LDLO human: 29 mg/kg (RTECS)

Acute dermal toxicity

LD50 rabbit: 3,360 mg/kg (RTECS)

Skin irritation

rabbit

Result: Irritations

(IUCLID)

Eye irritation

rabbit

Result: Severe irritations

(IUCLID)

Germ cell mutagenicity

Genotoxicity in vitro

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(IUCLID)

Ames test

Result: negative

(IUCLID)

MATERIAL SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number	114556	Version 1.1
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SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Other adverse effects

Additional ecological information

Discharge into the environment must be avoided.

Ingredients

Sodium chloride

Toxicity to fish

LC50 Pimephales promelas (fathead minnow): 7,650 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 1,000 mg/l; 48 h (IUCLID)

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Resorcinol

Toxicity to fish

LC50 Leuciscus idus (Golden orfe): 31.6 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 1.28 mg/l; 48 h (IUCLID)

Toxicity to algae

IC50 Chlorella vulgaris (Fresh water algae): 605 mg/l; 6 h (IUCLID)

Toxicity to bacteria

microtox test EC50 Photobacterium phosphoreum: 264 mg/l; 30 min

Biodegradability

66.7 %; 14 d

OECD Test Guideline 301C

(IUCLID)

Readily biodegradable.

Theoretical oxygen demand (ThOD)

1,890 mg/g

MATERIAL SAFETY DATA SHEET

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Ratio BOD/ThBOD
BOD5 61 %

Ratio COD/ThBOD
100 %

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

UN number	UN3316
Proper shipping name	CHEMICAL KIT
Class	9
Packing group	II
Environmentally hazardous	--

Air transport (IATA)

UN number	UN 3316
Proper shipping name	CHEMICAL KIT
Class	9
Packing group	II
Environmentally hazardous	--
Special precautions for user	no

Sea transport (IMDG)

UN number	UN 3316
Proper shipping name	CHEMICAL KIT
Class	9
Packing group	II
Environmentally hazardous	--
Special precautions for user	yes
EmS	F-A S-P

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

MATERIAL SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number	114556	Version 1.1
Product name	Nitrate Cell Test in seawater Method: photometric 0.10 - 3.00 mg/l NO ₃ -N 0.4 - 13.3 mg/l NO ₃ ⁻ Spectroquant® NO ₃ -1K	

SECTION 15. Regulatory information

United States of America

OSHA Hazards

Target organ effects
Toxic by ingestion
Skin irritant
Eye irritant

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

SARA 311/312 Hazards

Acute Health Hazard
Chronic Health Hazard

SARA 313

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Ingredients

Resorcinol

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Ingredients

Resorcinol

DEA List I

Not listed

DEA List II

Not listed

US State Regulations

Massachusetts Right To Know

Ingredients

Sodium sulphate
Resorcinol

Pennsylvania Right To Know

Ingredients

Sodium chloride
Sodium sulphate
Resorcinol

MATERIAL SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number	114556	Version1.1
Product name	Nitrate Cell Test in seawater Method: photometric 0.10 - 3.00 mg/l NO ₃ -N 0.4 - 13.3 mg/l NO ₃ ⁻ Spectroquant® NO ₃ -1K	

New Jersey Right To Know

Ingredients

Sodium chloride
Sodium sulphate
Resorcinol

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 07/22/2013

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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