



## SAFETY DATA SHEET

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

Revision Date 06/27/2014

Version 1. 1

### SECTION 1. Identification

#### Product identifier

Product number	EX0996
Product name	Extran® 300 Detergent Phosphate-Free

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

Identified uses	Reagent for analysis
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#### Details of the supplier of the safety data sheet

Company	EMD Millipore Corporation   290 Concord Road, Billerica, MA 01821, United States of America   General Inquiries: +1-978-715-4321   Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)
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Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
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### SECTION 2. Hazards identification

#### GHS Classification

Corrosive to Metals, Category 1, H290  
Skin corrosion, Category 1A, H314  
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system, H335  
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.  
H335 May cause respiratory irritation.

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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.

P308 + P310 IF exposed or concerned: 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). This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS and may deviate from the GHS information.

### **Other hazards**

None known.

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## **SECTION 3. Composition/information on ingredients**

Chemical nature

Aqueous solution of inorganic and organic compounds.

### **Hazardous ingredients**

*Chemical Name ( Concentration)*

CAS-No.

*ethanolamine (  $\geq 10\%$  -  $< 30\%$  )*

141-43-5

Exact percentages are being withheld as a trade secret.

*sodium hydroxide (  $\geq 5\%$  -  $< 10\%$  )*

1310-73-2

Exact percentages are being withheld as a trade secret.

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## **SECTION 4. First aid measures**

### **Description of first-aid measures**

*General advice*

First aider needs to protect himself.

*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.

Never give anything by mouth to an unconscious person.

### **Most important symptoms and effects, both acute and delayed**

Irritation and corrosion, bronchitis, Cough, Shortness of breath, Drowsiness, Nausea, collapse

Risk of blindness!

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### 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*

Water, Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

*Unsuitable extinguishing media*

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

### Special hazards arising from the substance or mixture

Mixture with combustible ingredients.

Development of hazardous combustion gases or vapors possible in the event of fire.

Fire may cause evolution of:

nitrogen oxides

### 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.

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## 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 let product enter 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 material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

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## SECTION 7. Handling and storage

### Precautions for safe handling

Observe label precautions.

### Conditions for safe storage, including any incompatibilities

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### *Requirements for storage areas and containers*

No metal or light-weight-metal containers.

Tightly closed.

Store at room temperature.

## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

#### *Ingredients*

Basis	Value	Threshold limits	Remarks
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#### *ethanolamine 141-43-5*

ACGIH	Time Weighted Average (TWA):	3 ppm	
	Short Term Exposure Limit (STEL):	6 ppm	
NIOSH/GUIDE	Recommended exposure limit (REL):	3 ppm	
		8 mg/m <sup>3</sup>	
	Short Term Exposure Limit (STEL):	6 ppm	
		15 mg/m <sup>3</sup>	
OSHA_TRANS	PEL:	3 ppm	
		6 mg/m <sup>3</sup>	
Z1A	Time Weighted Average (TWA):	3 ppm	
		8 mg/m <sup>3</sup>	
	Short Term Exposure Limit (STEL):	6 ppm	
		15 mg/m <sup>3</sup>	

#### *sodium hydroxide 1310-73-2*

ACGIH	Ceiling Limit Value:	2 mg/m <sup>3</sup>	
NIOSH/GUIDE	Ceiling Limit Value and Time Period (if specified):	2 mg/m <sup>3</sup>	
OSHA_TRANS	PEL:	2 mg/m <sup>3</sup>	
Z1A	Ceiling Limit Value:	2 mg/m <sup>3</sup>	

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

### 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*

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

### *Eye/face protection*

Tightly fitting safety goggles

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### *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 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.

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## **SECTION 9. Physical and chemical properties**

Physical state	liquid
Color	off-white
Odor	No strong odor known.
Odor Threshold	No information available.
pH	No information available.
Melting point	No information available.
Boiling point	No information available.
Flash point	> 199.9 °F ( > 93.3 °C) Method: c.c. does not flash
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.
Density	No information available.
Relative density	No information available.
Water solubility	No information available.

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Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Corrosion	May be corrosive to metals.

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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

Exothermic reaction with:

Acrolein, Nitriles, chlorosulfonic acid, Hydrogen chloride gas, acetic acid, Acetic anhydride, fuming sulfuric acid, Nitric acid, sulfuric acid, mineral acids, vinyl acetate, Oxidizing agents

Risk of ignition or formation of inflammable gases or vapors with:

sulfur, iron(III) compounds, Metals, Light metals

Possible formation of:

Hydrogen

Violent reactions possible with:

Nitriles, ammonium compounds, Cyanides, magnesium, organic nitro compounds, organic combustible substances, phenols, powdered alkaline earth metals, acids

Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitosamines!

#### Conditions to avoid

no information available

#### Incompatible materials

Aluminum, various plastics, brass, Metals, metal alloys, Zinc, Tin, Light metals, glass, quartzes/silicate ceramics, animal/vegetable tissues, rubber, Copper, Copper alloys

#### Hazardous decomposition products

in the event of fire: See section 5.

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### SECTION 11. Toxicological information

#### Information on toxicological effects

##### *Likely route of exposure*

Eye contact, Skin contact

##### *Target Organs*

Respiratory system

Central nervous system

Eyes

Skin

Lungs

Gastro-intestinal system

head

tongue

trachea

##### *Acute oral toxicity*

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Acute toxicity estimate: > 2,000 mg/kg

Calculation method

##### *Acute inhalation toxicity*

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:., damage of respiratory tract

Acute toxicity estimate: > 20 mg/l; 4 h

Calculation method

##### *Acute dermal toxicity*

absorption

Acute toxicity estimate : > 2,000 mg/kg

Calculation method

##### *Skin irritation*

Necrosis

Mixture causes burns.

##### *Eye irritation*

Necrosis Mixture causes serious eye damage. Risk of blindness!

##### *Specific target organ systemic toxicity - single exposure*

Target Organs: Respiratory system

Mixture may cause respiratory irritation.

##### *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

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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

After absorption:

Nausea, Drowsiness

Systemic effects:

collapse, death

Damage to:

Kidney, Liver

Under given conditions, contact with nitrites or nitric acid can lead to the formation of nitrosamines, which have shown themselves to be carcinogenic in animal experiments.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

### Ingredients

#### *ethanolamine*

##### *Acute oral toxicity*

LD50 rat: 1,515 mg/kg (External MSDS)

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

##### *Acute inhalation toxicity*

Acute toxicity estimate: 11.1 mg/l; vapor

Expert judgment

##### *Acute dermal toxicity*

LD50 rabbit: 1,025 mg/kg (IUCLID)

##### *Skin irritation*

rabbit

Result: Causes burns.

(IUCLID)

##### *Eye irritation*

rabbit

Result: Causes burns.

(IUCLID)

##### *Germ cell mutagenicity*



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### *Genotoxicity in vivo*

Mutagenicity (mammal cell test): micronucleus.

mouse

Result: negative

Method: OECD Test Guideline 474

### *Genotoxicity in vitro*

Ames test

Salmonella typhimurium

Result: negative

(IUCLID)

Mutagenicity (mammal cell test):

Human lymphocytes

Result: negative

(IUCLID)

### *sodium hydroxide*

#### *Skin irritation*

rabbit

Result: Causes burns.

(RTECS)

#### *Eye irritation*

rabbit

Result: Causes burns.

(RTECS)

#### *Germ cell mutagenicity*

##### *Genotoxicity in vitro*

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(Lit.)

Ames test

Result: negative

(IUCLID)

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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.

## **Ingredients**

### *ethanolamine*

#### *Toxicity to fish*

LC50 Oncorhynchus mykiss (rainbow trout): 150 mg/l; 96 h neutral (IUCLID)

#### *Toxicity to daphnia and other aquatic invertebrates*

EC5 E.sulcatum: 45 mg/l; 72 h neutral (IUCLID)

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EC50 *Daphnia magna* (Water flea): 65 mg/l; 48 h (IUCLID)

*Toxicity to algae*

IC50 *Desmodesmus subspicatus* (green algae): 22 mg/l; 72 h (IUCLID)

IC5 *Scenedesmus quadricauda* (Green algae): 0.75 mg/l; 8 d neutral (IUCLID)

*Toxicity to bacteria*

EC50 activated sludge: > 1,000 mg/l; 3 h

OECD Test Guideline 209

*Biodegradability*

90 - 100 %; 28 d

OECD Test Guideline 301F

Readily biodegradable.

*Biochemical Oxygen Demand (BOD)*

800 mg/g (5 d)

(IUCLID)

*Theoretical oxygen demand (ThOD)*

1,310 mg/g

(IUCLID)

### *sodium hydroxide*

*Toxicity to fish*

LC50 *Gambusia affinis* (Mosquito fish): 125 mg/l; 96 h (External MSDS)

*Toxicity to daphnia and other aquatic invertebrates*

EC50 *Daphnia magna* (Water flea): 76 mg/l; 24 h (External MSDS)

*Toxicity to bacteria*

EC50 *Photobacterium phosphoreum*: 22 mg/l; 15 min (External MSDS)

*Biodegradability*

The methods for determining biodegradability are not applicable to inorganic substances.

PBT/vPvB: Not applicable for inorganic substances

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## 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.

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**SECTION 14. Transport information**

**Land transport (DOT)**

UN number UN 1719  
Proper shipping name CAUSTIC ALKALI LIQUID, N.O.S. ( CONT.  
ETHANOLAMINE, SODIUM HYDROXIDE)  
Class 8  
Packing group III  
Environmentally hazardous --

**Air transport (IATA)**

UN number UN 1719  
Proper shipping name CAUSTIC ALKALI LIQUID, N.O.S. ( CONT.  
ETHANOLAMINE, SODIUM HYDROXIDE)  
Class 8  
Packing group III  
Environmentally hazardous --  
Special precautions for user no

**Sea transport (IMDG)**

UN number UN 1719  
Proper shipping name CAUSTIC ALKALI LIQUID, N.O.S. ( CONT.  
ETHANOLAMINE, SODIUM HYDROXIDE)  
Class 8  
Packing group III  
Environmentally hazardous --  
Special precautions for user yes  
EmS F-A S-B

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**SECTION 15. Regulatory information**

**United States of America**

**OSHA Hazards**

Target organ effects  
Harmful if swallowed.  
Harmful by skin absorption.  
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**

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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*

sodium hydroxide

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

#### *Ingredients*

sodium hydroxide

### **DEA List I**

Not listed

### **DEA List II**

Not listed

## **US State Regulations**

### **Massachusetts Right To Know**

#### *Ingredients*

ethanolamine

sodium hydroxide

### **Pennsylvania Right To Know**

#### *Ingredients*

water

ethanolamine

Ethylenedinitrilotetraacetic acid disodium salt

sodium hydroxide

### **New Jersey Right To Know**

#### *Ingredients*

water

ethanolamine

Ethylenedinitrilotetraacetic acid disodium salt

sodium hydroxide

### **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.

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## **SECTION 16. Other information**

### **Training advice**

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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.

H335

May cause respiratory irritation.

### 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](http://www.wikipedia.org).

Revision Date 06/27/2014

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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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