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

SECTION 1. Identification

Product identifier
- Product number: 107563
- Product name: Extran® AP 12 alkaline

Relevant identified uses of the substance or mixture and uses advised against
- Identified uses: Laboratory cleaning

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)

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

Precautionary Statements
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
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Product number  107563  
Product name  Extran® AP 12 alkaline

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.

SECTION  3. Composition/information on ingredients  
Chemical nature  Mixture of inorganic and organic compounds

Hazardous ingredients

Chemical Name (Concentration)
CAS-No.

sodium hydroxide ( >= 30 % - < 50 % )  
1310-73-2

Exact percentages are being withheld as a trade secret.  
sodium carbonate ( >= 10 % - < 30 % )  
497-19-8

Exact percentages are being withheld as a trade secret.  
tri-sodium phosphate ( >= 5 % - < 10 % )  
7601-54-9

Exact percentages are being withheld as a trade secret.

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. Remove contaminated clothing. 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, Cough, Shortness of breath, Dermatitis, Risk of corneal clouding.
Risk of blindness!
Drying-out effect resulting in rough and chapped skin.

**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:
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:*
Avoid substance contact. Avoid inhalation of dusts.
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**
Requirements for storage areas and containers
No metal or light-weight-metal containers.
Tightly closed. Dry.
Storage temperature: no restrictions.

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Basis</th>
<th>Value</th>
<th>Threshold limits</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium hydroxide</td>
<td>ACGIH Ceiling Limit Value:</td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sodium hydroxide</td>
<td>NIOSH/GUIDE Ceiling Limit Value and Time Period (if specified):</td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sodium hydroxide</td>
<td>OSHA_TRANS PEL:</td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sodium hydroxide</td>
<td>Z1A Ceiling Limit Value:</td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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.

SECTION 9. Physical and chemical properties

Physical state solid
Color  white
Odor  odorless
Odor Threshold  not applicable
pH  12.3
at  3 g/l
68 °F (20 °C)
Melting point  No information available.
Boiling point  No information available.
Flash point  not applicable
Evaporation rate  No information available.
Flammability (solid, gas)  The product is not flammable.
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  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.
Explosive properties  Not classified as explosive.
Oxidizing properties  none
Bulk density  ca. 900 kg/m³
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
Violent reactions possible with:
- acids

Conditions to avoid
No information available

Incompatible materials
Metals
Gives off hydrogen by reaction with metals.

Hazardous decomposition products
No information available

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure
- Eye contact, Skin contact, Ingestion

Target Organs
- Eyes
- Skin
- Respiratory system
- 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 inhalation toxicity
Symptoms: Mucosal irritations, Cough, Shortness of breath, Possible damages:; damage of respiratory tract

Skin irritation
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
Mixture causes severe burns.

Eye irritation
Mixture causes serious eye damage. Risk of corneal clouding. 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  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
Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

Ingredients
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)

sodium carbonate
Acute oral toxicity
LD50 rat: 4,090 mg/kg (IUCLID)
LDLO human: 714 mg/kg (RTECS)

Acute inhalation toxicity
LC50 rat: 5,750 mg/l; 2 h
OECD Test Guideline 403

Skin irritation
rabbit
Result: slight irritation
OECD Test Guideline 404

Eye irritation
rabbit
Result: Eye irritation
(IUCLID)

Germ cell mutagenicity
Genotoxicity in vitro
Ames test
Escherichia coli
Result: negative
(Lit.)

tri-sodium phosphate
Acute oral toxicity
LD50 rat: > 2,000 mg/kg
OECD Test Guideline 401

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.

Additional ecological information
When discharged properly, no impairments in the function of adapted biological wastewater treatment plants are to be expected.
Discharge into the environment must be avoided.

Ingredients

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

**sodium carbonate**

*Toxicity to fish*

LC50  *Lepomis macrochirus* (Bluegill sunfish): 300 mg/l; 96 h (IUCLID)

*Toxicity to daphnia and other aquatic invertebrates*

EC50  *Daphnia magna* (Water flea): 265 mg/l; 48 h (IUCLID)

Biodegradability

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

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

**tri-sodium phosphate**

*Toxicity to fish*

LC0  *Leuciscus idus* (Golden orfe): ca. 2,400 mg/l; 48 h

OECD Test Guideline 203

Biodegradability

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

**SECTION 14. Transport information**

**Land transport (DOT)**

UN number  UN 1823
Proper shipping name  SODIUM HYDROXIDE, SOLID
Class  8
Packing group  II
Environmentally hazardous  --

**Air transport (IATA)**
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Product number 107563  Version 1.2
Product name Extran® AP 12 alkaline

UN number UN 1823
Proper shipping name SODIUM HYDROXIDE, SOLID
Class 8
Packing group II
Environmentally hazardous --
Special precautions for user no

Sea transport (IMDG)
UN number UN 1823
Proper shipping name SODIUM HYDROXIDE, SOLID
Class 8
Packing group II
Environmentally hazardous --
Special precautions for user yes
EmS F-A S-B

SECTION 15. Regulatory information
United States of America

OSHA Hazards
Target organ effects
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
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
- tri-sodium phosphate
- Pentasodium triphosphate
- sodium hydroxide

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

Ingredients
- tri-sodium phosphate
- Pentasodium triphosphate
- sodium hydroxide

DEA List I
Not listed

DEA List II
Not listed

US State Regulations

Massachusetts Right To Know
Ingredients
- Pentasodium triphosphate
- sodium hydroxide
- tri-sodium phosphate

Pennsylvania Right To Know
Ingredients
- Pentasodium triphosphate
- sodium hydroxide
- sodium carbonate
- tri-sodium phosphate

New Jersey Right To Know
Ingredients
- Pentasodium triphosphate
- sodium hydroxide
- sodium carbonate
- tri-sodium phosphate

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.

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 06/11/2014

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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