






**Safety Data Sheet dated 30/8/2017, version 3**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- 1.1. Product identifier  
Mixture identification:  
Trade name: EXPO pH PLUS
- 1.2. Relevant identified uses of the substance or mixture and uses advised against  
Identified use:  
Chloride-free basic corrector - liquid.  
Uses advised against:  
Any other use different from the identified uses.
- 1.3. Details of the supplier of the safety data sheet  
Company:  
BARCHEMICALS SRL  
VIA S.ALLENDE 14  
CASTELNUOVO RANGONE (MO)  
ITALY  
PHONE. +39 059/536502  
FAX. +39 059/536742  
www.barchemicals.it  
Competent person responsible for the safety data sheet:  
barani.corrado@barchemicals.it
- 1.4. Emergency telephone number  
Barani Dr.Corrado - MOBILE PHONE. +39 335/6109383

**SECTION 2: Hazards identification**

- 2.1. Classification of the substance or mixture  
EC regulation criteria n°1272/2008 (CLP)
-  Warning, Met. Corr. 1, May be corrosive to metals.
  -  Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.
  -  Danger, Eye Dam. 1, Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

- 2.2. Label elements  
Hazard pictograms:



Danger

Hazard statements:

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

Precautionary statements:

- P102 Keep out of reach of children.  
P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves and eye/face protection.

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P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Special Provisions:

None

Contains

sodium hydroxide; caustic soda

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards


**SECTION 3: Composition/information on ingredients**

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 30% - < 40%	sodium hydroxide; caustic soda	Index 011-002-00-6 number: CAS: 1310-73-2 EC: 215-185-5 REACH No.: 01- 2119457892- 27	 3.2/1A Skin Corr. 1A H314

**SECTION 4: First aid measures**

4.1. Description of first aid measures

In case of skin contact:

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. Remove contaminated clothing immediately and dispose off safely.  
OBTAIN IMMEDIATE MEDICAL ATTENTION.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.  
Protect uninjured eye.

In case of Ingestion:

Rinse well your mouth  
Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.  
In case of breathing difficult, bring the injured person into the open air and store it in a comfortable position for breathing. Consult a physician.  
If breathing is irregular or stopped, administer artificial respiration.

4.2. Most important symptoms and effects, both acute and delayed

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Ingestion causes severe irritation or chemical burns in the mouth, throat, esophagus and stomach.

Contact with the eyes produces redness, pain, severe deep burns and loss of vision.

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

After contact with skin, wash immediately with plenty of soap and water.

In case of contact with eyes, rinse immediately for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed, do not induce vomiting.

In case of inhalation seek medical advice immediately and show the container or label.

### **SECTION 5: Firefighting measures**

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Water spray, heavy alcohol foam, dry chemical or carbon dioxide.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Immediately isolate the area by removing all persons from the area of the accident in the event of a fire. No action shall be taken involving any personal risk or without proper training.

Firefighters must wear protective equipment and self-contained breathing apparatus (SCBA) with a full-face mask on the working face at positive pressure. Fire extinguishers (including helmets, protective boots and gloves) conforming to European Standard EN469 will provide basic protection for chemical accidents.

### **SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate the surrounding areas.

Prevent entry of foreign and unprotected personnel.

Do not touch or walk on spilled material.

Avoid breathing vapors or mists.

Wear personal protection equipment.

Provide adequate ventilation.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Stop the escape if there is no risk. Move the containers from the spill area. Get closer to the source of overwhelming emission. Prevent spills in sewage systems, waterways, basements or restricted areas. Wash and convey the spilled amounts in a waste treatment plant.

In case of a liquid product, hold and absorb the spillage with inert absorbent material (eg, sand, earth, vermiculite, fossil flour). Store contaminated material in suitable containers and start waste disposal. After collection, rinse the area and the materials with water by retrieving the water used and, if necessary, dispose of it in authorized plants.

6.4. Reference to other sections

See also section 8 and 13

## SECTION 7: Handling and storage

- 7.1. Precautions for safe handling  
Avoid contact with skin and eyes, inhalation of vapours and mists.  
Don't use empty container before they have been cleaned.  
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.  
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities  
Store at room temperature and away from direct sunlight.  
Do not eat, drink or smoke at the workplace. Foods and beverages should be consumed only in areas specifically identified after removing contaminated clothing and protective equipment and after washing your hands. Wash in any case hands after handling the substance / mixture.  
Keep away from food, drink and feed.  
Incompatible materials:  
See the next paragraph 10.  
Instructions as regards storage premises:  
Adequately ventilated premises.
- 7.3. Specific end use(s)  
See section 1.2.

## SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters  
sodium hydroxide; caustic soda - CAS: 1310-73-2  
ACGIH - STEL: Ceiling 2 mg/m<sup>3</sup> - Notes: URT, eye, and skin irr  
DNEL Exposure Limit Values  
sodium hydroxide; caustic soda - CAS: 1310-73-2  
Worker Professional: 1 03 - Consumer: 1 03 - Exposure: Human Inhalation -  
Frequency: Short Term, local effects  
Worker Professional: 1 03 - Consumer: 1 03 - Exposure: Human Inhalation -  
Frequency: Long Term, local effects  
PNEC Exposure Limit Values  
N.A.
- 8.2. Exposure controls  
Eye/face protection:  
Eye glasses with side protection. EN166  
Protective visor against liquid splashes (EN166). Recommended when there is a risk of spraying, spraying or spraying of liquid.
- Protection for skin:  
Clothing resistant to corrosive products CLASS I, EN 340
- Protection for hands:  
Gloves resistant to chemicals. EN 374
- Respiratory protection:  
Mesh with filter P2 (white), medium retention capacity, for irritating or harmful particles or aerosols (EN143).  
Where ventilation is insufficient or exposure is prolonged use a respiratory protective device, eg. Type A filter according to EN141 standard.
- Thermal Hazards:  
Not applicable (the product is handled at room temperature)
- Environmental exposure controls:  
Do not allow the product to be absorbed from the soil or from entering waterways or sewers.  
Do not let product enter drains. Discharge into the environment must be avoided.

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The product is toxic to the aquatic environment as it strongly modifies the pH.  
 Appropriate engineering controls:  
 Ensure adequate ventilation. Comply with the maximum concentration values in the workplace.

**SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Liquid Colorless	--	--
Odour:	Odorless	--	--
Odour threshold:	N.A.	--	--
pH:	13	--	at 20 °C
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	102 - 142.5 °C	--	760 mm Hg
Flash point:	Not inflammable	--	--
Evaporation rate:	40.5	--	nBuAc = 100 25 ° C relative
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	17.5 mm Hg	--	at 20 °C
Vapour density:	Not Available	--	at 20 °C
Relative density:	1.05 - 1.53 Kg/l	--	at 20 °C
Solubility in water:	Complete	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	Not Available	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	41 mPas	--	At 40 ° C dynamic
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

## 9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	Not Available	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	Not Relevant	--	--

**SECTION 10: Stability and reactivity**

## 10.1. Reactivity

## 10.2. Chemical stability

Stable under recommended storage and handling. Please refer to section 7 of the MSDS.

## 10.3. Possibility of hazardous reactions

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- Acids.  
In presence of metals.
- 10.4. Conditions to avoid  
Highly reactive with water.  
Do not mix with acids. It can be produced toxic gases (chlorine).  
Never pour water on these substances; When you need to dissolve or dilute, slowly add the product to the water.
- 10.5. Incompatible materials  
Concentrated acids.  
Metals
- 10.6. Hazardous decomposition products  
None under normal conditions of storage and use.

**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

sodium hydroxide; caustic soda - CAS: 1310-73-2

a) acute toxicity:

Test: LD50 - Route: Skin - Species: Rabbit = 1350 mg/kg - Source: IUCLID

b) skin corrosion/irritation:

Test: Skin Corrosive - Route: Skin - Species: Rabbit Yes - Source: JACOBS G 1990 (ECHA) - Notes: OECD GUIDELINE 404 (ACUTE DERMAL IRRITATION / CORROSION)

d) respiratory or skin sensitisation:

Test: Skin Sensitization No - Source: PARK 1995 (ECHA)

e) germ cell mutagenicity:

Test: Genotoxicity No - Source: MORITA 1989 (ECHA) - Notes: MAMMALIAN CELL GENE MUTATION ASSAY

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

**SECTION 12: Ecological information**

12.1. Toxicity

No information is available on the mixture as a whole. This is the information on ecotoxicological effects of the individual components.

sodium hydroxide; caustic soda - CAS: 1310-73-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 45 mg/l - Duration h: 96 - Notes: ECHA

Endpoint: EC50 - Species: Daphnia = 40 mg/l - Duration h: 48 - Notes: ECHA

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.



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- 12.4. Mobility in soil  
N.A.
- 12.5. Results of PBT and vPvB assessment  
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects  
None

**SECTION 13: Disposal considerations**

- 13.1. Waste treatment methods  
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

**SECTION 14: Transport information**



- 14.1. UN number  
ADR-UN Number: 1824  
IATA-UN Number: 1824  
IMDG-UN Number: 1824
- 14.2. UN proper shipping name  
ADR-Shipping Name: SODIUM HYDROXIDE SOLUTION(sodium hydroxide; caustic soda)  
IATA-Shipping Name: SODIUM HYDROXIDE SOLUTION(sodium hydroxide; caustic soda)  
IMDG-Shipping Name: SODIUM HYDROXIDE SOLUTION(sodium hydroxide; caustic soda)
- 14.3. Transport hazard class(es)  
ADR-Class: 8  
ADR - Hazard identification number: 80  
IATA-Class: 8  
IATA-Label: 8  
IMDG-Class: 8
- 14.4. Packing group  
ADR-Packing Group: II  
IATA-Packing group: II  
IMDG-Packing group: II
- 14.5. Environmental hazards  
ADR-Environmental Pollutant: No  
IMDG-Marine pollutant: No
- 14.6. Special precautions for user  
ADR-Subsidiary risks: -  
ADR-S.P.: -  
ADR-Transport category (Tunnel restriction code): 2 (E)  
IATA-Passenger Aircraft: 851  
IATA-Subsidiary risks: -  
IATA-Cargo Aircraft: 855  
IATA-S.P.: A3 A803  
IATA-ERG: 8L  
IMDG-EmS: F-A , S-B  
IMDG-Subsidiary risks: -  
IMDG-Stowage and handling: Category A  
IMDG-Segregation: SG35

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code  
N.A.

**SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)  
Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

None

**SECTION 16: Other information**

**For professional use.**

Full text of phrases referred to in Section 3:

H314 Causes severe skin burns and eye damage.

Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals, Category 1
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Eye Dam. 1	3.3/1	Serious eye damage, Category 1

Paragraphs modified from the previous revision:

SECTION 1: Identification of the substance/mixture and of the company/undertaking

SECTION 2: Hazards identification



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SECTION 3: Composition/information on ingredients  
SECTION 4: First aid measures  
SECTION 5: Firefighting measures  
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SECTION 8: Exposure controls/personal protection  
SECTION 9: Physical and chemical properties  
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SECTION 13: Disposal considerations  
SECTION 14: Transport information  
SECTION 15: Regulatory information  
SECTION 16: Other information

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,  
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van  
Nostrand Reinold

Liability exclusion clause: The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

For professional use.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
CLP: Classification, Labeling, Packaging.  
DNEL: Derived No Effect Level.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
IMDG: International Maritime Code for Dangerous Goods.  
INCI: International Nomenclature of Cosmetic Ingredients.  
KSt: Explosion coefficient.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
PNEC: Predicted No Effect Concentration.  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWA: Time-weighted average  
WGK: German Water Hazard Class.

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