



**SANIPUR S.r.l.**

**ENOXIN P10 PLUS**

Revision nr. 1

Dated : 10/11/2015

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## Safety data sheet

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Code:	P 211
Product name	ENOXIN P10 PLUS
Chemical name and synonym	Water solution of Hypochlorite
INDEX number	017-011-00-1
EC number	231-668-3
CAS number	7681-52-9

**1.2. Relevant identified uses of the substance or mixture and uses advised against**  
Intended use                      **Chemical agent for water treatment.**

#### 1.3. Details of the supplier of the safety data sheet

Name	SANIPUR USS LLC
Full address	912 Spring Mill Avenue
District and Country	Conshohocken PA 19428 USA
	USA
	SANIPUR USS LLC
	Tel. +1 484 351 8702
	Fax

e-mail address of the competent person  
responsible for the Safety Data Sheet                      **info@sanipur.it**

#### 1.4. Emergency telephone number

For urgent inquiries refer to                      Chemtrec:  
Within USA and Canada: **1-800-424-9300**

### SECTION 2. Hazards identification.

#### 2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Skin corrosion, category 1A	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
	Note B	

#### 2.2. Label elements.

**ENOXIN P10 PLUS**

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.



Signal words:                      Danger

Hazard statements:

**H314**                                      Causes severe skin burns and eye damage.  
**EUH206**                                Warning! Do not use together with other products. May release dangerous gases (chlorine).

Precautionary statements:

**P264**                                      Wash . . . thoroughly after handling.  
**P280**                                      Wear protective gloves / clothing and eye / face protection.  
**P304+P340**                            IF INHALED: remove person to fresh air and keep comfortable for breathing.  
**P310**                                      Immediately call a POISON CENTER / doctor / . . .

INDEX.                                    017-011-00-1

**2.3. Other hazards.**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

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

**3.1. Substances.**

Contains:

The full wording of hazard (H) phrases is given in section 16 of the sheet.

Identification.	Conc. %.	
<b>WATER</b>		
CAS. 7732-18-5	89	
EC. 231-791-2		
INDEX. -		
<b>SODIUM HYPOCHLORITE</b>		
CAS. 7681-52-9	10	Skin Corr. 1B H314, Aquatic Acute 1 H400 M=10, EUH031, Note B
EC. 231-668-3		



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INDEX. 017-011-00-1

**SODIUM HYDROXIDE**

1

CAS. 1310-73-2

EC. 215-185-5

INDEX. 011-002-00-6

3.2. Mixtures.

**3.2. Mixtures.**

Information not relevant.

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

### **4.1. Description of first aid measures.**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

## **SECTION 5. Firefighting measures.**

### **5.1. Extinguishing media.**

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.



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**5.2. Special hazards arising from the substance or mixture.**

**HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

**5.3. Advice for firefighters.**

**GENERAL INFORMATION**

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures.**

**6.1. Personal precautions, protective equipment and emergency procedures.**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions.**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

**6.3. Methods and material for containment and cleaning up.**

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections.**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. Handling and storage.**

**7.1. Precautions for safe handling.**



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Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

**7.2. Conditions for safe storage, including any incompatibilities.**

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

**7.3. Specific end use(s).**

Information not available.

**SECTION 8. Exposure controls/personal protection.**

**8.1. Control parameters.**

Regulatory References:

GRB	United Kingdom	EH40/2005 Workplace exposure limits
	TLV-ACGIH	ACGIH 2014

**SODIUM HYDROXIDE**

**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
WEL	GRB			2	
TLV-ACGIH				2 (C)	

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

**8.2. Exposure controls.**

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

**HAND PROTECTION**

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.



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The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## SECTION 9. Physical and chemical properties.

### 9.1. Information on basic physical and chemical properties.

Appearance	liquido limpido
Colour	colourless
Odour	characteristic
Odour threshold.	Not available.
pH.	12
Melting point / freezing point.	3 °C.
Initial boiling point.	96 °C.
Boiling range.	Not available.
Flash point.	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,020 Kg/l
Solubility	soluble in water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

### 9.2. Other information.



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Information not available.

## **SECTION 10. Stability and reactivity.**

### **10.1. Reactivity.**

Information not available.

### **10.2. Chemical stability.**

Information not available.

### **10.3. Possibility of hazardous reactions.**

Contact with strong acids causes the development of toxic gases.

### **10.4. Conditions to avoid.**

Avoid overheating.

SODIUM HYDROXIDE: exposure to the air, moisture and sources of heat.

### **10.5. Incompatible materials.**

Strong acids.

SODIUM HYDROXIDE: strong acids, ammonia, zinc, lead, aluminium, water and flammable liquids.

### **10.6. Hazardous decomposition products.**

Information not available.

## **SECTION 11. Toxicological information.**

### **11.1. Information on toxicological effects.**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using

the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Be careful not to combine this product with other products - such an operation may lead to the development of gases harmful to the human health (chlorine).

#### SODIUM HYDROXIDE

LD50 (Oral). 1350 mg/kg Rat

LD50 (Dermal). 1350 mg/kg Rat

#### SODIUM HYPOCHLORITE

LD50 (Oral). > 5000 mg/kg Rat

LD50 (Dermal). > 10000 mg/kg Rabbit

## SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

### 12.1. Toxicity.

#### SODIUM HYPOCHLORITE

LC50 - for Fish. 0,059 mg/l/96h *Oncorhynchus mykiss*

EC50 - for Crustacea. 0,04 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants. 46 mg/l/72h *Gracilaria tenuistipitata*

### 12.2. Persistence and degradability.

#### SODIUM HYDROXIDE

Solubility in water. > 10000 mg/l

Biodegradability: Information not available.

#### SODIUM HYPOCHLORITE

Solubility in water. mg/l 1000 - 10000

Biodegradability: Information not available.

### 12.3. Bioaccumulative potential.





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**SODIUM HYPOCHLORITE**

Partition coefficient: n-octanol/water. -3,42

**12.4. Mobility in soil.**

Information not available.

**12.5. Results of PBT and vPvB assessment.**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

**12.6. Other adverse effects.**

Information not available.

**SECTION 13. Disposal considerations.**

**13.1. Waste treatment methods.**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information.**

**14.1. UN number.**

ADR / RID, IMDG, IATA: 1791

**14.2. UN proper shipping name.**

ADR / RID: HYPOCHLORITE SOLUTION  
IMDG: HYPOCHLORITE SOLUTION  
IATA: HYPOCHLORITE SOLUTION

**14.3. Transport hazard class(es).**

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ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8



**14.4. Packing group.**

ADR / RID, IMDG, IATA: III

**14.5. Environmental hazards.**

ADR / RID: NO

**14.6. Special precautions for user.**

ADR / RID:	HIN - Kemler: 80	Limited Quantities 1L	Tunnel restriction code 2/(E)
	Special Provision: -		
IMDG:	EMS: -	Limited Quantities 1L	
IATA:	Cargo:	Maximum quantity: -	Packaging instructions: -
	Pass.:	Maximum quantity: -	Packaging instructions: -
	Special Instructions:	-	

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.**

Information not relevant.

**SECTION 15. Regulatory information.**

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

Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.  
Point. 3

Substances in Candidate List (Art. 59 REACH).



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None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

#### **15.2. Chemical safety assessment.**

No chemical safety assessment has been processed for the mixture and the substances it contains.

### **SECTION 16. Other information.**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>Skin Corr. 1A</b>	Skin corrosion, category 1A
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H400</b>	Very toxic to aquatic life.
<b>EUH031</b>	Contact with acids liberates toxic gas.
<b>EUH206</b>	Warning! Do not use together with other products. May release dangerous gases (chlorine).

#### **LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number

- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EU) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 453/2010 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

#### Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 05 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.