

**SAFETY DATA SHEET**  
in accordance with Regulation (CE) Num. 1907/2006  
(REACH)

Z10 ANTIMUFFA  
cod.07129001\_07130001\_07131001  
Version: 12/ EN

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Date of print: 31/01/2020  
Data of previous review: 31/01/2020

## 1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

-Product name : **Z10 ANTIMUFFA cd.07129001\_07130001\_07131001**  
-Product type : modified, aqueous solution of sodium hypochlorite.

### 1.2. Relevant identified uses of the mixture and uses advised against

Mould, fungus and stains removal.

This product is not recommended for all those industrial, professional or consumer uses not specifically identified on the label.

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

**SARATOGA INT. SFORZA SPA** - Via Edison, 76 - 20090 Trezzano s/Naviglio (MI) - Italia -  
Tel. +039 02.445731; Fax +039 02.4452742; e-mail: [trading@saratogasforza.com](mailto:trading@saratogasforza.com)  
Competent person responsible for the Safety Data Sheet: [trading@saratogasforza.com](mailto:trading@saratogasforza.com)

### 1.4. Emergency telephone number

CAV - Ospedale Pediatrico "Bambino Gesù" - Roma - Tel. +39 06 68593726 (h24)  
CAV - Azienda Ospedaliero-Universitaria Foggia - Foggia - Tel. +39 0881 732326 (h24)  
CAV - Azienda Ospedaliera "A. Cardarelli" - Napoli - Tel. +39 081 7472870 (h24)  
CAV - Policlinico "Umberto I" - Roma - Tel. +39 06 4450618 (h24)  
CAV - Policlinico "A. Gemelli" - Roma - Tel. +39 06 3054343 (h24)  
CAV - Azienda Ospedaliera "Careggi" U.O. Tossicologia Medica - Firenze - Tel. +39 055 7947819(h24)  
CAV - Centro Nazionale di Informazione Tossicologica - Pavia - Tel. +39 0382 24444 (h24)  
CAV - Ospedale "Niguarda Ca' Granda" - Milano - Tel. +39 02 66101029 (h24)  
CAV - Azienda Ospedaliera "Papa Giovanni XXIII" - Bergamo - Tel. +39 800 883300 (h24)

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the mixture

The product is classified as hazardous according to EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety data sheet that complies with the provisions of EC Regulation 1907/2006 and UE Regulation 2015/830.

-Danger Symbols: **GHS05 - GHS09**  
-H phrases: **H290 - H314 - H410**

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

### 2.2. Label elements

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



**GHS05**



**GHS09**

**Signal word** Danger

**H290** May be corrosive to metals.  
**H314** Causes severe skin burns and eye damage  
**H410** Very toxic to aquatic life with long lasting effects.

**P101** If medical advice is needed, have product container or label at hand.  
**P102** Keep out of reach of children.  
**P273** Avoid release to the environment.  
**P280** Wear protective gloves/protective clothing/eye protection/face protection.  
**P302+P352** IF ON SKIN: Wash with plenty of soap and water.  
**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**P332+P313** If skin irritation occurs: Get medical advice/attention. If eye irritation persists:  
**P337+P313** Get medical advice/attention.  
**P501** Dispose of contents / container in special authorized collection centers.

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**EUH031** Contact with acids liberates toxic gas.  
**EUH206** **Warning!** Do not use together with other products. May release dangerous gases (chlorine).

**Contains:** 5-15 % of chlorine-based bleaches (Sodium Hypochlorite, **7 % solution of active chlorine**).

### 2.3. Other hazards

Information not available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

The product contains:

NAME	CAS N° CE N° INDEX N°	CONC. %	Classification 1272/2008 (CLP)
<b>Sodium Hypochlorite, Solution 14-15 % Cl active (Vol.)</b>	7681-52-9 231-668-3 017-011-00-1	40-50	Skin Corr. 1B H314, Eye Dam 1 H318, Aquatic Acute 1 H400, Aquatic Chronic 1 H410, EUH031, note B
Sodium Chlorate	7775-09-9 231-887-4 017-005-00-9	<2	Ox. Sol. 1 H271, Acute Tox. 4 H302, Aquatic Chronic 2 H411
Sodium Hydroxide	1310-73-2 215-185-5 011-002-00-6	<1	Met. Corr. 1 H290, Skin Corr. 1A H314

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

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

- Eyes: Irrigate copiously with clean, fresh water for at least 15 minutes or till irritation disappears. Apply two or three drops of collyrium. If symptoms persist, seek medical advice.
- Skin: remove contaminated clothing, wash the skin immediately with plenty of water and soap. Wet eventually with a diluted water solution of Sodium Thiosulphate. If irritation persists, seek medical attention. Wash contaminated clothing before using them again.
- Inhalation: remove to open air. If breathing is irregular, seek medical advice.
- Ingestion: obtain immediate medical attention. Do not induce vomiting. Wash mouth with water (only if the person is conscious).

### 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

Follow doctor's orders.

## 5. FIREFIGHTING MEASURES

### 5.1. Extinguishing media

- Suitable extinguishing media: the extinction equipment should contain carbon dioxide, foam alcohol-proof or chemical powders. For product leaks and spills that have not caught fire, nebulised water can be used to disperse flammable fumes and protect the individuals taking part in stemming the leak.
- Not suitable extinguishing media: Do not use jets of water. Water can be used to cool containers exposed to flames to prevent explosions.

### 5.2. Special hazards arising from the mixture

Take the containers away from area of risk taking care to avoid hazards. Excess heating of the product can generate chlorine.

### 5.3. Advice for fire-fighters

Exposition to combustion fumes can be potentially hazardous for health. Do not breathe combustion products (carbon oxide, Chlorine, toxic pyrolysis products, etc). Use self-respirator. Depending on the fire extent, use complete protective equipments. Use jets of water to cool the containers exposed to fire.

## 6. ACCIDENTAL RELEASE MEASURES

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

Wear gloves, protective clothes and breathing equipment with filters suitable for acid and chlorine vapours.

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## 6.2. Environmental precautions

Collect leaked material and absorb with earth and sand. Eliminate sources of ignition (cigarettes, flames, sparks, etc.) from the areas in which the leak occurred. Do not smoke. If the product penetrated the sewers, surface water, ground water and neighbouring areas, inform local competent authorities.

## 6.3. Methods and material for containment and clearing up

Make sure the leakage site is well aired. Collect the leaked product with spark proof mechanical tools and place it in containers for disposal (see point 13). Soak up any leaked product with absorbent inert material (sand, vermiculite, diatomaceous earth, etc). If there are no contraindications, use jets of water to wash area and materials involved.

## 6.4. Reference to other sections

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

# 7. HANDLING AND STORAGE

## 7.1. Precautions for safe handling

Avoid the accumulation of electrostatic charges. Vapours may ignite with explosion, it is therefore necessary to ensure good crossventilation. Do not breathe vapours. Avoid contact with eyes. Keep away from sources of ignition and bright flames. When using do not eat, drink or smoke.

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

Keep away from sun light, heat and bright flames, store at temperatures between +7 and +25 °C . Take precautionary measures against static discharges. Keep in a well ventilated place with safety electric plant. Keep containers in a safety position.

## 7.3 Specific end use(s)

Information not available.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1. Control parameters

Name	TLV/TWA (8h)	STEL (15 min)	
Chlorine	0,5 ppm (1,5 mg/m <sup>3</sup> )	1 ppm (3 mg/m <sup>3</sup> )	

## Health - Derived no-effect level - DNEL / DMEL

### DNEL/DMEL

Route of exposure :	DNEL effects on consumers (local) ( Sodium Hypochlorite, solution of active chlorine ; No. CAS : 7681-52-9 )
Frequency :	Inhalation
Value :	Short term (acute)
	3,1 mg/m <sup>3</sup>
Route of exposure :	DNEL effects on consumers (systemic) ( Sodium Hypochlorite, solution of active chlorine ; No. CAS : 7681-52-9 )
Frequency :	Inhalation
Value :	Long term (repeated)
	1,55 mg/m <sup>3</sup>
	DNEL effects on consumers (systemic) ( Sodium Hypochlorite, solution of active chlorine ; No. CAS : 7681-52-9 )

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Route of exposure : Oral  
Frequency : Long term (repeated)  
Value: 0,26 mg/kg  
DNEL effects on consumers (local) ( Sodium Hypochlorite, solution of active chlorine ; No. CAS : 7681-52-9 )

Route of exposure : Inhalation  
Frequency : Short term (acute)  
Value: 3,1 mg/m<sup>3</sup>  
DNEL effects on consumers (systemic) ( Sodium Hypochlorite, solution of active chlorine ; No. CAS : 7681-52-9 )

Route of exposure : Inhalation  
Frequency : Short term (acute)  
Value: 3,1 mg/m<sup>3</sup>  
DNEL effects on consumers (systemic) (Sodium Hypochlorite, solution of active chlorine; No. CAS : 7681-52-9 )

Route of exposure : Inhalation  
Frequency : Long term (repeated)  
Value: 1,55 mg/m<sup>3</sup>

**PNEC**

Value: PNEC (Acquatic, fresh water) ( Sodium Hypochlorite, solution of active chlorine ; No. CAS : 7681-52-9 )  
0,21 Rg/l

Value: PNEC (Acquatic, marine water) ( Sodium Hypochlorite, solution of active chlorine ; No. CAS : 7681-52-9 )  
0,042 Rg/l

Value: PNEC (Secondary poisoning) ( Sodium Hypochlorite, solution of active chlorine ; No. CAS : 7681-52-9 )  
11,1 mg/kg

Value: PNEC (Terrestrial compartment) ( Sodium Hypochlorite, solution of active chlorine ; No. CAS : 7681-52-9 )  
4,69 mg/l

## 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is

well aired through effective local aspiration or bad air vent.

- Hand protection: wear suitable gloves (like Butyl Rubber IIR, >0,5 mm, onset time >= 480 min, or PVC (thickness 1-1,2 mm) or Neoprene or Nitrile rubber) (ref. Dir. 89/686/CEE and standard EN 374). Gloves must be changed when degradation starts.
- Eye protection: wear protective airtight goggles (ref. standard EN 166).
- Skin protection: for extended uses wear category II professional long-sleeved overalls and safety footwear (ref. Dir. 89/686/CEE and standard EN 344). Wash body with soap and water after removing overalls.
- Respiratory protection: If the threshold value for one of the substances present in the preparation for daily exposure in the workplace is exceeded, wear a mask with a filter suitable for organic vapours (A2-P2) (ref. standard EN 141), the class of the filter must be chosen according to the limit concentration of use (ref. standard EN 141). In a critical situation use breathing protection equipment (ref. standard EN 137 or EN 138).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

-Appearance: liquid  
-Odour: of chlorine  
-Colour: light  
yellow -pH (20°C): about 12  
-Viscosity: n.d.  
-Melting point: n.a.  
-Boiling point: it decomposes  
-Flash point: not flammable  
-Density of fumes: n.d.  
-Density (15°C): 1,1-1,2 g/cm<sup>3</sup>  
-Solubility in water: soluble

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## 9.2. Other information

-Active Chlorine: **about 7 %**

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

It reacts strongly with acids.

### 10.2. Chemical stability

The stability decreases when it is exposed to heat, light or when it gets in contact with impurities like iron, nickel, copper, cobalt, aluminium or manganese.

### 10.3. Possibility of hazardous reactions

By contact with acids, it strongly develops Chlorine (gas strongly irritant and toxic).

By contact with metals, it decomposes developing oxygen.

### 10.4. Conditions to avoid

Avoid overheating, it decomposes issuing hazardous products.

### 10.5. Incompatible materials

Avoid contact with acids, ammonium salts and metals.

### 10.6. Hazardous decomposition products

Decomposition products are: Chlorine, Hypochlorous Acid, Sodium Chlorate and Oxygen.

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

-Sodium Hypochlorite:

-Oral rat LD50: >1100 mg/Kg

-Dermal rabbit LD50: > 20000 mg/Kg

-Inhalation Rat (female) LC50 > 10,5 mg/l (1h)

Acute effects: vapour inhalation irritates the upper respiratory tract; it causes cough, headache, nausea, sore throat; may be risk of pulmonary edema. Contact with skin may cause irritation with pain and redness. Contact with eyes may cause serious injury, rubescence, edema, pain and lachrymation. Ingestion may cause heavy irritation to the mouth and throat and additionally stomach pain and sting, nausea and sickness.

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## 12. ECOLOGICAL INFORMATION

This product is classified as dangerous for the environment particularly referred to aquatic organisms.

### 12.1. Toxicity

- Sodium Hypochlorite
- Very toxic to fishes (LC50, 96h = 0,16-1,56 mg/l)
- Very toxic to Daphnia (CE50, 48h = 0,04 mg/l), molluscs (CL50, 48h = 1,9-14,5 ml)

Toxic for aquatic organisms.

#### Toxicity for fish

Parameter : LC50 ( Sodium Hypochlorite, solution of active chlorine ; No. CAS :  
7681-52-9 ) Fish  
Dose : = 0,01 - 0,1 mg/l  
Time : 96 h

#### Toxicity for Crustacea

Parameter : EC50 ( Sodium Hypochlorite, solution of active chlorine ; No. CAS :  
7681-52-9 ) Daphnia magna  
Dose : = 0,01 - 0,1 mg/l  
Time : 48 h

#### Toxicity for Algae/Aquatic Plants

Parameter : IC50 ( Sodium Hypochlorite, solution of active chlorine ; No. CAS :  
7681-52-9 ) Myriophyllum spicatum  
Dose : 0,1 - 0,4 mg/l

### 12.2. Persistence and degradability

Information not available.

### 12.3. Bioaccumulative potential

Bioaccumulative phenomena are not expected.

### 12.4. Mobility in soil

Avoid soil penetration.

### 12.5. Results of PBT and vPvB assessment

The mixture does not contain any PBT and/or vPvB substance.

### 12.6. Other adverse effects

Information not available.

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Avoid release to the environment, do not discharge in the sewers. 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. Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## 14. TRANSPORT INFORMATION

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.

### 14.1 UN Number

ONU 1791

### 14.2 UN Proper shipping name

(ADR/RID)  
HYPOCHLORITE SOLUTION  
(IMDG)  
HYPOCHLORITE SOLUTION  
(ICAO-TI / IATA-DGR)

### 14.3 Transport Hazard class(es)

#### -Road and rail transport:

ADR/RID Class:	8	UN 1791, Hypochlorite solution.
Packing Group:	III	
Label:	8	
Nr. Kemler:	80	
Limited Quantity:	5L	
Special Provision:		

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**-Carriage by sea (shipping):**

Class: 8 UN 1791, Hypochlorite solution.  
Packing Group: III  
Label: 8  
EMS: F-A; S-B  
MFAG: 741

**-Transport by air:**

IATA: 8 UN 1791, Hypochlorite solution.  
Packing Group: III

**-UN Number:** UN 1791 Hypochlorite  
**-Name and description:** solution

**-14.4 Packing group**

III

**14.5 Environmental hazards**

(ADR/RID): Yes (IMDG): Yes (P) (ICAO-TI /  
IATA-DGR): Yes

**14.6 Special precautions for use**

None

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC code**

not applicable

## 15. REGULATORY INFORMATION

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

Reg.UE 528/2012 amended (Biocide Reg.): The product is a treated article according to the biocides regulation.

-Seveso regulation:

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-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).

None.

-Substances subject to authorisation (Annex XIV REACH).

None.

-Healthcare controls according to Dir. 98/24/EC.

### 15.2. Chemical safety assessment

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

## 16. OTHER INFORMATION

Legislations:

- Regulation (CE) N. 648/2004
- Regulation (EC) N. 1907/2006 (REACH) of the European Parliament
- Regulation (EC) N. 1272/2008 (CLP) of the European Parliament
- Regulation (EC) N. 790/2009 (I Atp. CLP) of the European Parliament
- Regulation (EC) N. 286/2011 (II Atp. CLP) of the European Parliament
- Regulation (EC) N. 618/2012 (III Atp. CLP) of the European Parliament
- Regulation (EC) N. 487/2013 (IV Atp. CLP) of the European Parliament
- Regulation (EC) N. 944/2013 (V Atp. CLP) of the European Parliament
- Regulation (EU) N. 2015/830 of the European Parliament

General bibliography:

- NIOSH: Registry of toxic effects of chemical substances
- I.N.R.S. Fiche Toxicologique
- N.I. Sax – Dangerous properties of Industrial Materials

Legenda:

- n.a.: not applicable
- n.d.: not available

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

<b>EUH031</b>	Contact with acids liberates toxic gas
<b>EUH206</b>	<b>Warning!</b> Do not use together with other products. May release dangerous gases (chlorine).
<b>H290</b>	May be corrosive to metals.
<b>H271</b>	May cause fire or explosion; strong oxidiser.
<b>H302</b>	Harmful if swallowed.
<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>H410</b>	Very toxic to aquatic life with long lasting effects.
<b>H411</b>	Toxic to aquatic life with long lasting effects.

This sheet cancels and substitutes any previous review.

Sections changed to previous review (09/09/2015):

Section from 1 to 16.

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. The producer is relieved from any liability arising from improper uses. This document must not be regarded as a guarantee on any specific product property.