

**GRAN CLOR 2006****Material Safety Data Sheet (MSDS)**

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Version: 1.0

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier: GRAN CLOR 2006**

**1.2 Relevant identified uses of the substance or mixture and uses advised against:** Heavily foaming, washing and disinfecting product, based on active chlorine, for cleaning surfaces and equipment that have a contact with food or fodder. It has bactericidal, fungicidal, virucidal and sporicidal effects. The product is not intended to be used in the medical area.

**1.3 Details of the supplier of the safety data sheet:**

TENZI Sp. z o.o., 72-002 Dołuje, Skarbimierzycy 20, e-mail: [info@tenzi.pl](mailto:info@tenzi.pl), [www.tenzi.pl](http://www.tenzi.pl), tel. +48 91 3119777, fax. +48 91 3119779 E-mail address for a competent person responsible for MSDS: [technolog@tenzi.pl](mailto:technolog@tenzi.pl)

**1.4 Emergency telephone number:** +48 91 31 19 777 (mon. - fri. 8am-4pm) or 112

**SECTION 2. HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008**

Skin Corr. 1B H314- Causes severe skin burns and eye damage.

Eye Dam. 1 H318- Causes serious eye damage

STOT SE 3-Specific target organ toxicity – single exposure STOP, category 3

Aquatic Acute 1 H400- Very toxic to aquatic life

Aquatic Chronic 3 H412- Harmful to aquatic life with long lasting effects

**2.2. Label elements****According to 1272/2008/EC\***

Hazard symbols



and signal words **DANGER**

**Hazard statements:**

H314- Causes severe skin burns and eye damage.

H335 – May cause respiratory irritation.

H410 – Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P330 + P331 – IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

P310 – Immediately call a POISON CENTER or doctor/physician

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 – Store locked up.

EUH 031 – Contact with acids liberates toxic gas.

**2.3. Other hazards**

Substance does not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

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**SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS**

**3.1 Substances**

not applicable

**3.2 Mixture**

**Composition (according to: 648/2004/EC): 100 ml contains:** Sodium hypochlorite (active ingredient)- 24g , Sodium hydroxide to 10%, Cationic Surfactant to 5%, Phosphonates to 5%

Product / ingredient name	Concentration [% weigh]	CAS / EC	Index-No.	REACH registration number	Classification
					Regulation (EC) No. 1272/2008 [CLP]
Sodium hydroxide (100%)	10	1310-73-2 215-185-5	011-002-00-6	01-21194578 92-27-XXXX	Skin Corr. 1A H314, Met. Corr. 1 H290
Sodium hypochlorite contains about 16% active chlorine (active ingredient)	23 ÷ 24	7681-52-9 231-668-3	017-011-00-1	01-21194881 54-34-XXXX	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Acute 1 H400, EUH 031
Cationic Surfactant	< 5	85408-49-7 287-011-6	---	01-21194900 61-47-XXXX	Skin Irrit. 2 H315, Eye Dam 1 H318, Aquatic Acute 1 H400, Aquatic Chronic 2 H411, Acute Tox. 4, H302
Phosphonates	< 5	37971-36-1 253-733-5	---	01-21194366 43-39-XXXX	Met. Corr. 1 H290

The full texts of R-phrases and H-symbols are in 16th section.

**SECTION 4. FIRST AID MEASURES**

**4.1. Description of first aid measures**

**Inhalation**– In case of inhalation poisoning symptoms (cough, dyspnea, dizziness) move to fresh air. Lay patient down in semi-recumbent posture, physical activity may cause pulmonary edema. Keep warm and rested. Get medical attention.

**Skin contact**– If product comes in contact with the skin immediately remove all contaminated clothing and flush exposed area with large amounts of water. Consult a doctor in case burns or irritation occur.

**Eye contact**- Immediately flush eyes with running water at least 15 minutes keeping eyelids open. Get medical attention

**Ingestion**- DO NOT induce vomiting. Give lots of water to drink. DO NOT give any neutralizing agents. Immediately contact a doctor and show this MSDS or label.

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

**Inhalation**– May cause upper respiratory tract irritation. Symptoms may include: coughing, sore throat, breathing difficulty.

**Skin** – Cause severe burns, may cause deep, penetrating ulcers of the skin.

**Eyes** - Cause severe eye burns, chemical conjunctivitis and corneal damage (redness, intense pain), possible irreversible impairment of vision or blindness.

**Ingestion** –Corrosive. Cause burning in mouth, esophagus, throat and stomach.

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

Obtain medical attention. Self-contained eye wash or shower should be readily available.

**SECTION 5. FIREFIGHTING MEASURES**

**5.1. Extinguishing media**

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**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and surrounding environment.

**Extinguishing media which shall not be used for safety reason:** no data available

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

Product is non-flammable. Due to the strong oxidising properties - in contact with a number of organic substances, hydrogen or powdered metals poses a threat of fire/explosion.

**5.3. Advice for firefighters**

Firefighters should wear self-contained breathing apparatus and full protective clothing. In case of fire warn the people nearby. Evacuate unprotected and untrained personnel from hazard area. If possible, remove the containers away from the influence of fire and high temperature. Water may be used to keep fire-exposed containers cool until fire is out. The after burning residues should be removed.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Protective clothes; self-contained breathing apparatus; safety glasses; safety glasses

Avoid skin and eyes contact. Provide proper ventilation.

**6.2. Environmental precautions**

Product is dangerous to the environment. Very toxic to aquatic life. Avoid discharge into drains, water courses or onto the ground. Avoid discharge into drains, water courses or onto the ground.

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

In case of unexpected release substance into environment inform on emergency, keep away from source of ignition. Prevent spills from entering sewers, surface water or groundwater. If it is possible confine and contain the spill by closing liquid flow, damage container put into protect leak proof wrapping. For large spill make a dike around the outside edges of the spill. Clean-up materials store for disposal as hazardous waste. Decontaminate polluted area with water. For small spill use absorbent materials (sand solid, sawdust, fines limestone) and store for disposal as hazardous waste. Decontaminate polluted area with water

**6.4. Reference to other sections**

See section 8 and 13.

**SECTION 7. HANDLING AND STORAGE****7.1. Precautions for safe handling**

Please note that you need to be carefully while working with this product. Use personal protection recommended in section 8.2

Mix only with water. DO NOT mix with other chemical substances.

People with skin allergy or respiratory system problems should not have contact with this product.

Avoid risk – read this instruction sheet carefully before using.

After usage keep container tightly closed. Keep away from unauthorized people.

Use only adequate ventilation.

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

Store in a tightly close, original plastic container. Store this product in dry environment that will be maintained at temperature between 5°C - 35°C. Store in good ventilated area with easy clean alkali resistant floor. DO NOT expose to sunlight. Keep away from heat, sparks, flame and source of ignition.

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

no data available

**SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION****8.1. Control parameters**

Please check any national occupational exposure limit values in your country.

**DNEL /PNEC values for substances (according to MSDS or Chemical Safety Report):**

**Sodium hydroxide (data for high concentrations substance):**

DNEL, PNEC: not identified

**GRAN CLOR 2006****Sodium hypochlorite (data for high concentrations substance):**

DNEL Potential health effects: Acute effects, Type of effect: systemic effect, Exposure route: inhalation, Value: 3,1 mg/m<sup>3</sup>,  
DNEL Potential health effects: Acute effects, Type of effect: local effect, Exposure route: inhalation, Value: 3,1 mg/m<sup>3</sup>,  
DNEL Potential health effects: Chronic effects, Type of effect: systemic effect, Exposure route: inhalation, Value: 1,55 mg/m<sup>3</sup>,  
DNEL Potential health effects: Chronic effects, Type of effect: systemic effect, Exposure route: oral, Value: 0,26 mg/kg bw/day  
DNEL Potential health effects: Chronic effects, Type of effect: local effect, Exposure route: dermal, Value: 0,5% as a mixture  
DNEL Potential health effects: Chronic effects, Type of effect: local effect, Exposure route: inhalation, Value: 1,55 mg/m<sup>3</sup>  
PNEC Aqua (fresh water): 0,21 mg/dm<sup>3</sup>  
PNEC Aqua (marine water): 0,042 mg/dm<sup>3</sup>

**Cationic Surfactant (data for high concentrations substance):**

DNEL Exposure frequency: Long term, Exposure route: dermal, Value: 5,5 mg/kg bw/day, Group: consumers, Type of effect: systemic effect  
DNEL Exposure frequency: Long term, Exposure route: inhalation, Value: 3,825 mg/m<sup>3</sup>, Group: consumers  
DNEL Exposure frequency: Long term, Exposure route: oral, Value: 0,44 mg/kg bw/day, Group: consumers, Type of effect: systemic effect  
DNEL Exposure frequency: Long term, Exposure route: dermal, Value: 11 mg/kg bw/day, Group: Workers Type of effect: systemic effect  
DNEL Exposure frequency: Long term, Exposure route: inhalation, Value: 15,5 mg/m<sup>3</sup>, Group: Workers Type of effect: systemic effect  
PNEC Aqua (fresh water): 0,0335 mg/l Extrapolation method: Assessment factor.  
PNEC Aqua (marine water): 0,0335 mg/l Extrapolation method: Assessment factor.  
PNEC Sediment (freshwater): 5,24 mg/kg Extrapolation method: partition coefficient  
PNEC Sediment (marine water): 0,524 mg/kg Extrapolation method: partition coefficient  
PNEC Soil: 1,02 mg/kg Extrapolation method: partition coefficient  
PNEC Sewage treatment plant: 24 mg/l Extrapolation method: Assessment factor.  
PNEC secondary poisoning 11,1 mg/kg Extrapolation method: Assessment factor.  
PNEC intermittent release: 0,00335 mg/l Extrapolation method: Assessment factor.

**Phosphonates (data for high concentrations substance):**

DNEL, PNEC: not identified

**NOTE:** When the concentration of substance is known, personal protective equipment should be chosen based on: substance concentration on a workplace, exposure time and operations performed by the employee. In emergency situations, if substance concentration on the workplace is unknown, personal protection of highest class level should be used.

**8.2. Exposure controls****Personal protective equipment:**

**RESPIRATORY PROTECTION:** In case of insufficient ventilation, wear suitable respiratory equipment - masks with gas and vapour protection

**HAND PROTECTION:** Chemical-resistant gloves for example: DERMATRIL

**EYE/FACE PROTECTION:** safety glasses, in case of contact with face wear face-shield.

**SKIN PROTECTION:** Protective clothing. protective shoes.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

APPEARANCE/FORM: -liquid

ODOUR - characteristic - chlorine

ODOUR THRESHOLD - no data available

pH - 14±1

MELTING/FREEZING POINT: no data available

INITIAL BOILING POINT AND BOILING RANGE: no data available

FLASH POINT: no data available

EVAPORATION RATE: no data available

FLAMMABILITY (SOLID,GAS): no data available

UPPER/LOWER FLAMMABILITY (UEL/LEL): no data available

VAPOUR PRESSURE: no data available

VAPOUR DENSITY: no data available

RELATIVE DENSITY: 1,140±0,020 g/cm<sup>3</sup>

**GRAN CLOR 2006****SOLUBILITY:**

- a) WATER – soluble
  - b) ORGANIC SOLVENT – no data available
- PARTITION COEFFICIENT N-OCTAN no data available  
OL/WATER: – no data available  
AUTO-IGNITION TEMPERATURE: no data available  
DECOMPOSITION TEMPERATURE: no data available  
VISCOSITY: no data available  
EXPLOSIVE PROPERTIES: no data available  
OXIDISING PROPERTIES: no data available

**9.2. Other information**

REFRACTIVE INDEX – 22% Brix\* ± 5%

\* - Degrees Brix is the content of an aqueous solution. One degree Brix is 1 gram of sucrose in 100 grams of solution and represents the strength of the solution as percentage by weight (%w/w)

**SECTION 10. STABILITY AND REACTIVITY****10.1 Reactivity**

Strongly oxidising. Product easy react with acids.

**10.2 Chemical stability**

Stable under recommended storage conditions (see point 7)

**10.3 Possibility of hazardous reactions**

Contact with acids liberates toxic gas

**10.4 Conditions to avoid**

Avoid storage unprotected from heat and not well-ventilated area. Avoid long-term expose to sunlight.

**10.5 Incompatible materials**

Contact with acids will generate chlorine Material to avoid: strong oxidizers, Hydrogen, metal powder, organic materials (amines, ammonium salts)

**10.6 Hazardous decomposition products**

Heating will release oxygen, chlorine and carbon dioxide.

**SECTION 11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****ACUTE TOXICITY:**

- **INHALATION** : May cause upper respiratory tract irritation. Symptoms may include: breathing difficulty, coughing, sore throat

- **SKIN CONTACT**: Cause severe burns. Cause redness, pain and deep penetrating ulcers of the skin.

- **EYE CONTACT** Cause serious eye damage, chemical conjunctivitis and corneal damage (redness, intense pain), possible irreversible impairment of vision or blindness.

**DIGESTIVE SYSTEM**: Corrosive. Cause burning in mouth, esophagus, throat and stomach.

ATEmix= 21 322 (Acute toxicity, oral)

**DETAILS OF PARTICULAR COMPONENTS (according to substances's MSDS)****Sodium hydroxide (data for high concentrations substance):**

Local Effects:

-inhalation: Severe irritant. May cause severe burns and serious damage of the upper respiratory tract. Irritation may lead to chemical pneumonitis and pulmonary edema. Symptoms may include: sneeze, exudates or secretions of the nose, coughing, sore throat, breathing difficulty even coma.

-ingestion: Corrosive, cause burning in mouth, esophagus, throat and stomach. May cause severe damage to the digestive tract (risk of perforation) and possible death. Symptoms may include: strong pain, vomiting, diarrhea and low blood pressure. Damage symptoms may appear days after exposure.

-contact with skin: Corrosive, may cause severe burns, may cause deep, penetrating ulcers of the skin. May cause skin cold and clammy skin with cyanosis or pale color. Skin damage or ulceration is slow to heal.

-contact with eyes: Corrosive, cause severe eye burns, chemical conjunctivitis and corneal damage (redness, intense pain),

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possible irreversible impairment of vision or blindness.

LD50 500 mg/kg (rat, oral)

LD50 500 mg/kg (rabbit, oral)

**Sodium hypochlorite (data for high concentrations substance):**

-inhalation: May cause severe respiratory tract irritation with possible burns. Low concentrations can cause irritation of the throat and lung (burning, stinging), coughing and breathing difficulty. May cause pain, vomiting and possible pulmonary edema. High concentrations may cause apnoea, loss of consciousness or cardiac failure, collapse. Symptoms may occur with delay.

- contact with skin: corrosive, causes severe chemical burns with symptoms of pain, redness and blistering.

-contact with eyes: Corrosive to the eyes. May cause severe deep burns, strong pain and redness.

-ingestion: May cause burning in mouth, esophagus, throat and stomach. May cause severe damage to the digestive tract (risk of perforation). Advanced stages may cause collapse. Symptoms: nausea, vomiting, strong pain

Long-term toxicity. Prolonged or repeated overexposure to sodium hypochlorite may cause skin irritation, chronic upper respiratory tract infection and conjunctivitis.

LD50 1100 mg/kg as free chlorine (intra peritoneal, rat)

LC50 1050 mg/m<sup>3</sup> (rat, vapour)

The odor threshold for chlorine is 0,2 mg/m<sup>3</sup>

**Cationic Surfactant (data for high concentrations substance):**

Details for active ingredient:

LD50 > 2000 mg/kg (rat, skin)

LD50 1064 (rat, oral)

Not sensitising (guinea pig, OECD 406, human EPA CFR)

Potential Chronic Health Effects:

- NOAEL, chronic exposure, 90 days, oral 88mg/kg (OECD 408)

- NOAEL, chronic exposure, skin 1%

LOEL, chronic exposure 90 days, skin 0,27% (OECD 411)

**Phosphonates (data for high concentrations substance):**

LD50: 6500 mg/kg (rat, oral)

LD50: 3000 mg/kg (rat, inhalation)

**SECTION 12. ECOLOGICAL INFORMATION****12.1 Toxicity****Sodium hydroxide (data for high concentrations substance):**

Toxic to fish and aquatic invertebrates and may adversely affect non-target plants.

- for fish: LC0 157 mg/l/48h, LC50 189 mg/l/48h, LC100 213 mg/l/48h

**Sodium hypochlorite (data for high concentrations substance):**

LC50 1,65-2,87 mg/l/48h (seawater), LC50 0,58 mg/l/96h (seawater)-fish

EC50 0,141 mg/l/48h (Daphnia, fresh water); EC50 0,026 mg/l/48h (Daphnia, seawater) - vertebrates

EC50 0,1 mg/l/21dni (fresh water plant); NOEC 0,021 mg/l/7dni (fresh water) – algae en water plant

M faktor acute = 10

**Cationic Surfactant (data for high concentrations substance):**

EC5072h Algae 0.1428 mg/l

EC5018 h Static Bacteria > 24 mg/l

EC5048 h Static Daphnia 3.1 mg/l

LC5096 h Static Fish 2.67 to 3.46 mg/l

NOEC 28 days Flow-through Algae > 67 ug/l

NOEC 21 days Flow-through Daphnia 0.7 mg/l

NOEC 302 days Flow-through Fish 0.42 mg/l

M faktor acute = 1

**Phosphonates (data for high concentrations substance):**

EC50: 300 mg/l/48h (Daphnia magna) - data for product

LC50: 1300 mg/l/96h (Rainbow trout) -data for pure substance

**12.2 Persistence and degradability:**

The surfactants contained within the product comply with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents.

**Sodium hydroxide (data for high concentrations substance):**

Readily Biodegradable in water and in air. Substance rapidly dissolves and subsequently dissociates in water. Sodium hydroxide is converted into carbonates.

**Sodium hypochlorite (data for high concentrations substance):**

Unstable in water and soil when in contact with organic materials. In 25<sup>o</sup>C degrades to oxygen, in 35<sup>o</sup>C will release chlorine, in 100<sup>o</sup>C will release chlorine dioxide.

**GRAN CLOR 2006****Cationic Surfactant (data for high concentrations substance):**OECD 301B Ready Biodegradability - CO<sub>2</sub> Evolution Test 28 days 90 %

OECD 62 days 74.9 to 76 %

OECD 303A Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units 21 days 69.9 to 75 %

OECD 314D - Biodegradation in Treated Effluent-Surface water Mixing Zone Test; 14 days 43 to 63

**Phosphonates (data for high concentrations substance):**

Biodegradation: 17%/28d (Zahn-Wellens)

**12.3 Bioaccumulative potential:****Sodium hydroxide (data for high concentrations substance):**

no data available

**Sodium hypochlorite (data for high concentrations substance):**

Does not bioaccumulate due to its high reactivity and toxicity. Log pow= - 3,42

**Cationic Surfactant (data for high concentrations substance):**

Log pow= &lt;2,7 (low)

**Phosphonates (data for high concentrations substance):**

no data available

**12.4 Mobility in soil**

The product is water soluble and may spread in groundwater systems.

**12.5 Results of PBT and vPvB assessment**

This substance/mixture does not meet the PBT and vPvB criteria of REACH, annex XIII.

**12.6 Other adverse effects**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS****RESIDUES AND WASTES**

DO NOT mix with other liquid wastes. DO NOT empty into drain. Dispose of this material and its container at hazardous or special waste collection point.

**13.1. WASTE TREATMENT METHODS**

Contaminated containers should be completely emptied. Several times rise container (or equivalent) promptly after emptying. Empty container can be stored in containers for collection of plastic packaging, or can be delivered to specialized company for recycling.

Disposal should be in accordance with the national/international regulations.

**SECTION 14. TRANSPORT INFORMATION**

Trade name: GRAN CLOR 2006

14.1. UN Number: 1791

14.2. UN proper shipping name: Hypochlorite solutions.

14.3. Transport hazard class(es): ADR class. 8

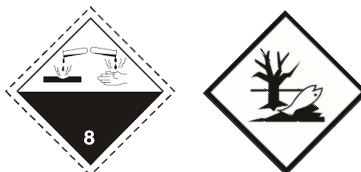
14.4. Packing group: III

14.5. Environmental hazards: Product is dangerous for environment

14.6. Special precautions for user: For more details see Sections 6 and 8

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: no data available

Warning label:



**SECTION 15. REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

- 1) COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 2) REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents
- 3) COMMISSION REGULATION (EC) No 907/2006 of 20 June 2006 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes III and VII thereto
- 4) REGULATION (EC) No 1336/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 amending Regulation (EC) No 648/2004 in order to adapt it to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
- 5) COMMISSION REGULATION (EC) No 551/2009 of 25 June 2009 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes V and VI thereto (surfactant derogation)
- 6) REGULATION (EU) No 259/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 March 2012 amending Regulation (EC) No 648/2004 as regards the use of phosphates and other phosphorus compounds in consumer laundry detergents and consumer automatic dishwasher detergents
- 7) REGULATION (EC) No 273/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 February 2004 on drug precursors)
- 8) REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**15.2. Chemical safety assessment**

**For mixture:** A Chemical Safety Assessment has not been carried out.

**For substance:**

**Sodium hydroxide:** A Chemical Safety Assessment has been carried out.

**Sodium hypochlorite:** A Chemical Safety Assessment has been carried out.

**Cationic Surfactant:** A Chemical Safety Assessment has been carried out.

**Phosphonates:** no data available

**SECTION 16. OTHER INFORMATION**

Information above are based on current knowledge of product on its current form. All data are presented in order to take into account safety requirements priority and not to guarantee special properties of the product. If product usage conditions are not under manufacturer control, responsibility for safe use lies with the person that uses them.

The employer is obliged to inform all employees, who have contact with the product, about the risk and safety measures specified in the data sheet.

Safety data presented above were prepared based on safety characteristics of substances used by the producer to compose the product and based on regulations for handling dangerous substances and their preparation.

Classification of chemical mixture was done with calculation methods, based on the content of hazardous ingredients.

The full list of Risk (R) phrases and H symbols from Section 2 and 3:

Acute Tox. 4- Acute toxicity, category 4

Aquatic Acute 1 - Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 2 - Hazardous to the aquatic environment - Chronic Hazard, Category 2

Eye Dam. 1- Serious eye damage, category 1

Met.Corr 1- Substance/Mixture is corrosive to metals, category 1

Skin Corr. 1A- Corrosive to skin, category 1A

Skin Corr. 1B- Corrosive to skin, category 1B

STOT SE 3-Specific target organ toxicity - Single exposure STOP, Category 3.

Skin Irrit. 2 - Causes skin irritation, category 2

H290 – May be corrosive to metals.

H302 – Harmful if swallowed.



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H314 – Causes severe skin burns and eye damage.  
H315 – Causes skin irritation.  
H318 – Causes serious eye damage.  
H335 – May cause respiratory irritation.  
H400 – Very toxic to aquatic life.  
H411 – Toxic to aquatic life with long lasting effects.

EUH 031 – Contact with acids liberates toxic gas.

More information on the product can be found on the specific technical data sheet which is available on [www.tenzi.pl](http://www.tenzi.pl).

**Training:** Course participants should be trained about how to handle this hazardous substance, about safety and work hygiene. Drivers should also be trained and obtain proper certification in accordance with the ADR requirements.

**GRAN CLOR 2006** was submitted to Inspector for Chemical Substances

**Expiry date:** 6 months from the production date (if product is stored according to the producer recommendations)

**Changes compared to the previous version:**

-general update. Updated cards versions are now available on [www.tenzi.pl](http://www.tenzi.pl)

This Material Safety Data Sheet contains 9 pages. Changes in the content by unauthorized persons is prohibited.

Skarbimierzyce 26.05.2015