

TOP PLAM CLOR

Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** TOP PLAM CLOR
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Chlorine-based stain remover.
- 1.3 Details of the supplier of the safety data sheet:**
- TENZI Sp. z o.o.
Skarbimierzyce 20
72-002 Dołuje
tel. +48 91 3119777
fax. +48 91 3119779
E-mail address for a competent person responsible for SDS: 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. 1A H314** – Causes severe skin burns and eye damage.
Eye Dam. 1 H318 – Causes serious eye damage.
Aquatic Acute 1 H400 – Very toxic to aquatic life.

2.2. Label elements:
(According to 1272/2008/EC*)

Hazard symbols:



Signal words:
DANGER

Hazard statements:

- H314** – Causes severe skin burns and eye damage.
H400 – Very toxic to aquatic life.

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): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P310 – Immediately call a POISON CENTER/doctor
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

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P405
EUH031

to do. Continue rinsing.
– Store locked up.
– 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.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances:

Not applicable.

3.2. Mixtures:

Composition (according to: 648/2004/EC):

- < 15% chlorine-based bleaching compounds
- < 5% sodium hydroxide
- < 5% cationic surfactants
- < 5% phosphonates
- auxiliary substances not classified as dangerous

Identification	Hazardous ingredient/classification	Concentration
CAS: 1310-73-2 WE: 215-185-5 Index: 011-002-00-6 Registration: 01-2119457892-27-XXXX	Sodium hydroxide (100%) Skin Corr. 1A H314, Met. Corr. 1 H290	5%
CAS: 7681-52-9 WE: 231-668-3 Index: 017-011-00-1 Registration: 01-2119488154-34-XXXX	Sodium hypochlorite containing about 15% of active chlorine Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Acute 1 H400, EUH 031	15%
CAS: 85408-49-7 WE: 287-011-6 Index: Not applicable Registration: 01-2119490061-47-XXXX	Cationic surfactants Skin Irrit. 2 H315, Eye Dam 1 H318, Aquatic Acute 1 H400, Aquatic Chronic 2 H411, Acute Tox. 4, H302	< 2%
CAS: 37971-36-1 WE: 253-733-5 Index: Not applicable Registration: 01-2119436643-39-XXXX	Phosphonates Met. Corr. 1 H290	< 1%

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

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures:

Inhalation:

In case of inhalation poisoning symptoms (cough, dyspnea, dizziness) move the injured to fresh air. Lay him down in semi-recumbent posture. Make sure to keep him calm and warm.

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Physical effort may cause pulmonary edema. 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. In case of skin irritation or burns, get medical attention.

Eye contact:

Flush eyes with running water (at least 15 minutes) while keeping eyelids open. Get medical attention.

Ingestion:

DO NOT induce vomiting. Give lots of water to drink. DO NOT give any neutralizing agents. Immediately get medical attention and show this SDS or label.

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

Inhalation:

Irritant. May cause respiratory irritation, cough, dyspnea and sore throat.

Skin:

Corrosive. Causes serious skin burns causing reddening, pain and wounds.

Eyes:

Corrosive. Causes severe eye burns, chemical conjunctivitis and corneal damage (redness, intense pain), possible irreversible impairment of vision or blindness.

Ingestion:

Corrosive. Causes serious burns in mouth, throat and stomach.

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

Get medical attention.

Fresh water and eye-wash preparations must be available on the worksite.

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media:

Suitable extinguishing media:

Use extinguishing measures that are appropriate to local circumstances and surrounding environment.

Unsuitable extinguishing media:

There are not any known extinguishing media that you shouldn't use.

5.2. Special hazards arising from the substance or mixture:

Product is non-flammable. Due to the strong oxidizing properties, when in contact with a number of organic substances, hydrogen or powdered metals, product poses a risk of 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 and evacuate unprotected and untrained personnel from hazard area. Notify relevant emergency services. 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

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SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Protective clothes, protective chemical-proof gloves (0.11 mm thick), self-contained breathing apparatus, safety glasses. Avoid skin and eye contact. Provide proper ventilation..

6.2. Environmental precautions:

Product is dangerous to the environment and it's very toxic to aquatic life. Avoid discharge into drains, watercourses or onto the ground at all costs.

6.3. Methods and material for containment and cleaning up:

In case of unexpected release of the substance into the environment, inform appropriate services about the emergency and remove any source of ignition. Prevent spills from entering sewers, surface water or groundwater. If it is possible, confine and contain the spill by closing the flow of the liquid, plug the damaged container and put it into leakproof wrapping. For a larger spill, make a dike around the outside edges of the spill and use absorbent materials (sand, sawdust, minced limestone). Store clean-up materials 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:

Be careful when working with this product.
Use personal protection recommended in section 8
Mix only with water. DO NOT mix with any 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 the product.
After usage, keep container tightly closed and keep it away from unauthorized people.
Use only adequate ventilation to avoid inhalation poisoning.

7.2. Conditions for safe storage, including any incompatibilities:

Store in a tightly closed, original plastic container. Store this product in a dry environment that will be maintained at 5°C - 35°C temperature with a good ventilation system and an easy washable, nonabsorbable alkaline resistant floor. DO NOT expose the product to sunlight and 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.

NDS/NDSch/NDSP values for individual chemical substances (according to SDS or Chemical Safety Report):

Sodium hydroxide (data for highly concentrated substance):

NDS: 0.5 mg/m³
NDSch: 1 mg/m³
NDSP: not identified.

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Sodium hypochlorite (data for highly concentrated substance):

NDS: 0.7 mg/m³
NDSCh: 1.5 mg/m³
NDSP: not identified.

Cationic surfactants (data for highly concentrated substance):

NDS, NDSCh, NDSP: not identified.

Phosphonates (data for highly concentrated substance):

NDS, NDSCh, NDSP: not identified.

DNEL/PNEC values for individual chemical substances (according to SDS or Chemical Safety Report):**Sodium hydroxide (data for highly concentrated substance):**

DNEL, PNEC: not identified.

Sodium hypochlorite (data for highly concentrated substance):**DNEL:**

Potential health effects: acute effects, Exposure route: inhalation, Type of effect: systemic effect,	Value: 3.1 mg/m ³
Potential health effects: acute effects, Exposure route: inhalation, Type of effect: local effect,	Value: 3.1 mg/m ³
Potential health effects: chronic effects, Exposure route: inhalation, Type of effect: systemic effect,	Value: 1.55 mg/m ³
Potential health effects: chronic effects, Exposure route: ingestion, Type of effect: systemic effect,	Value: 0.26 mg/kg
Potential health effects: chronic effects, Exposure route: dermal, Type of effect: local effect,	Value: 0.5% as a mixture
Potential health effects: chronic effects, Exposure route: inhalation, Type of effect: local effect,	Value: 1.55 mg/m ³

PNEC:

Aqua (fresh water): 0.21 mg/l
Aqua (marine water): 0.042 mg/l

Cationic surfactants (data for highly concentrated substance):**DNEL:**

Group: workers, Exposure time: long-term, Exposure route: dermal, Type of effect: systemic effect,	Value: 11 mg/kg
Group: workers, Exposure time: long-term, Exposure route: inhalation, Type of effect: systemic effect,	Value: 15.5 mg/m ³
Group: consumers, Exposure time: long-term, Exposure route: dermal, Type of effect: systemic effect,	Value: 5.5 mg/kg
Group: consumers, Exposure time: long-term, Exposure route: inhalation, Type of effect: systemic effect,	Value: 3.85 mg/m ³
Group: consumers, Exposure time: long-term, Exposure route: ingestion, Type of effect: systemic effect,	Value: 0.44 mg/kg

PNEC:

Aqua (fresh water): 0.0335 mg/l
Aqua (marine water): 0.0335 mg/l
Sediment (fresh water): 5.24 mg/kg
Sediment (marine water): 0.524 mg/kg
Sewage treatment plant: 24 mg/l
Secondary poisoning: 11.1 mg/kg orally
Intermittent release: 0.335 mg/l
Soil: 1.02 mg/kg

Phosphonates (data for highly concentrated substance):

DNEL, PNEC: not identified.

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

8.2. Exposure controls:

RESPIRATORY PROTECTION:

In case of insufficient ventilation, wear suitable respiratory equipment - masks with gas and vapour protection.

HAND PROTECTION:

Protective gloves resistant to alkaline chemical substances.
0.11 mm thick.

EYE/FACE PROTECTION:

Safety glasses. In case of contact with skin, wear face shield.

SKIN PROTECTION:

Protective clothes, protective boots.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Appearance:	Yellow liquid
Odour:	Characteristic (chlorine)
Odour threshold:	No data available
pH:	14 ± 1
Melting point:	No data available
Freezing point:	No data available
Initial boiling point:	No data available
Boiling range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Upper explosive limit:	No data available
Lower explosive limit:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	1.140 ± 0.020 g/cm ³
Solubility:	
A) Water:	soluble
B) Organic solvent:	No data available
Partition coefficient N-Octan:	No data available
Partition coefficient 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

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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 oxidizing. Product easily reacts with acids.

10.2 Chemical stability:

Stable under recommended storage conditions (see section 7).

10.3 Possibility of hazardous reactions:

Contact with acids releases toxic gas.

10.4 Conditions to avoid:

Avoid heavily warmed rooms without ventilation and long-term exposure to sunlight.

10.5 Incompatible materials:

Materials to avoid: acids, strong oxidizers, Hydrogen, metal powder, organic materials (amines, ammonium salts).

10.6 Hazardous decomposition products:

Under the influence of high temperature, product releases oxygen, chlorine and carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

ACUTE TOXICITY:

Inhalation: may cause irritation of the upper respiratory tract.

Skin contact: causes serious skin burns which cause skin redness, strong pain and wounds.

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 burns in mouth, throat and stomach.

ATEmix = 53 467 (acute toxicity, orally)

DETAILS OF PARTICULAR COMPONENTS (according to substance's SDS):

Sodium hydroxide (data for highly concentrated substance):

LD50: 500 mg/kg (rat, orally)

LDL0: 500 mg/kg (rat, orally)

- 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 from the nose, coughing, sore throat, breathing difficulty and even coma.

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- Ingestion:

Corrosive, causes serious burns in mouth, 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. Symptoms may appear days after exposure.

- contact with skin:

Corrosive, may cause severe burns and deep wounds penetrating ulcers of the skin.

May also cause skin cold, clammy skin with cyanosis or pale color.

Skin damage or ulceration heals very slowly and may cause serious changes on the skin.

- contact with eyes:

Corrosive, may cause severe eye burns, chemical conjunctivitis and corneal damage (redness, intense pain), possible irreversible impairment of vision or blindness.

Sodium hypochlorite (data for highly concentrated substance):

LD50: 1100 mg/kg as free chlorine (rat, intraperitoneal)

LC50: 1050 mg/m³ (rat, vapour)

- inhalation:

May cause severe respiratory tract irritation with possible burns.

Low concentrations can cause irritation of the throat and lungs (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. May cause severe deep burns to the eyeballs, strong pain and redness.

- ingestion:

May cause burns in mouth, throat, esophagus 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.

The odor threshold for chlorine is about 0,2 mg/m³.

Cationic surfactant (data for highly concentrated substance):

Details for active substance:

LD50: > 2000 mg/kg (rat, dermal)

LD50: 1064 mg/kg (rat, orally)

No allergic effects (guinea pig, OECD 406).

Potential chronic effects:

NOAEL, chronic, 90 days, orally 88 mg/kg, OECD 408

NOAEL, chronic, dermal 1%

LOEL, chronic, 90 days, dermal 0.27%, OECD 411

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Phosphonates (data for highly concentrated substance):

LD50: 6500 mg/kg (rat, orally)
LD50: 3000 mg/m³ (rat, inhalation)

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity:

Data for the mixture ingredients:

Sodium hydroxide (data for highly concentrated substance):

Toxic for animals, aquatic organisms and bacteria. May adversely affect plant growth.

LC50: 157 mg/l/48h (fish)
LC50: 189 mg/l/48h (fish)
LC100: 213 mg/l/48h (fish)

Sodium hypochlorite (data for highly concentrated substance):

LC50: 1,65-2,87 mg/l/48h (seawater)
LC50: 0,58 mg/l/96h (fish, seawater)
EC50: 0,141 mg/l/48h (daphnia, fresh water)
EC50: 0,026 mg/l/48h (daphnia, seawater) - vertebrates
EC50: 0,1 mg/l/21days (fresh water plants)
NOEC: 0,021 mg/l/7days (fresh water) – algae and water plant
M faktor acute = 10

Cationic surfactant (data for highly concentrated substance):

EC50: 0.1428 mg/l/72h (algae)
EC50: > 24 mg/l/18h (bacteria, static)
EC50: 3.1 mg/l/48h (daphnia, static)
LC50: 2.67-3.46 mg/l/96h (fish, static)
NOEC: > 67 mg/l/28days (algae, flow-through)
NOEC: 0.7 mg/l/21days (daphnia, flow-through)
NOEC: 0.42 mg/l/302days (fish, flow-through)

Phosphonates (data for highly concentrated 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.

Data for the mixture ingredients:

Sodium hydroxide (data for high concentrations substance):

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

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Sodium hypochlorite (data for highly concentrated substance):

Unsustainable in water and soil when in contact with organic materials.
In 25°C, it degrades to oxygen, in 35°C, it will release chlorine, in 100°C, it will release chlorine dioxide.

Cationic surfactant (data for highly concentrated substance):

Ready biodegradability – CO₂ Evolution test, 28 days, 90%, OECD 301 B.
62 days, 74.9-76%, OECD.
Simulation test – Aerobic sewage treatment – Activated sludge units, 21 days, 69.9-75%, OECD 303 A.
Biodegradability inside zone with mixing treated waste with surface water, 14 days, 43-63%, OECD 314 D.

Phosphonates (data for highly concentrated substance):

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

12.3. Bioaccumulative potential:**Sodium hydroxide (data for highly concentrated substance):**

No data available.

Sodium hypochlorite (data for highly concentrated substance):

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

Cationic surfactant (data for highly concentrated substance):

Log Pow < 2.7

Phosphonates (data for highly concentrated substance):

No data available.

12.4. Mobility in soil

The product is water soluble and may sink into 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 sewage system. Product should be totally used up according to its description.
If it's impossible to do so, 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 rinse the container 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.

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SECTION 14. TRANSPORT INFORMATION

TRADE NAME: TOP PLAM CLOR

- 14.1. UN Number: 1791
14.2. UN proper shipping name: Hypochlorite solution.
14.3. Transport hazard class(es): ADR class. 8.
14.4. Packing group: III
14.5. Environmental hazards: Yes.
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 LABELS



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 following mixture substances:

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.

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SECTION 16. OTHER INFORMATION

Information above is based on current knowledge of product in 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 symbols and H phrases from Section 2 and 3:

Aquatic Chronic 2	– Hazardous to the aquatic environment - Chronic Hazard, category 2.
Aquatic Acute 1	– Hazardous to the aquatic environment - Acute Hazard, category 1
Acute Tox. 4	– Acute toxicity, category 4.
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
Skin Irrit. 2	– Causes skin irritation, category 2.
STOT SE 3	– Specific target organ toxicity - Single exposure STOT, category 3.
H290	– May be corrosive to metals.
H302	– Harmful if swallowed.
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.
EUH031	– 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

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.

Expiry date:

12 months from the production date (if product is stored according to the producent recommendations)

TOP PLAM CLOR was submitted to Inspector for Chemical Substances.

Changes compared to the previous version:

- general update.

Updated cards versions are now available on www.tenzi.pl

This Safety Data Sheet contains 12 pages. Changes in the content by unauthorized people is prohibited.