

PENETRATOR

Safety Data Sheet

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

- 1.1 Product identifier:** PENETRATOR
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Pellets designed for cleaning pipes. Dissolves organic impurities. Use in pipes, outflows and drainage catch pits in kitchen and bathroom.
- 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:

- Met.Corr 1 H290** – Substance/Mixture is corrosive to metals, category 1.
Skin Corr. 1A H314 – Causes severe skin burns and eye damage.

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

Hazard symbols:



Signal words:
DANGER

Hazard statements:

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

Precautionary statements:

- P260** – Do not breathe dust/fume/gas/mist/vapours/ spray.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
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 to do. Continue rinsing.
P405 – Store locked up.

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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):

- >98% sodium hydroxide

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	> 98%

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 and make sure to keep him warm and calm. 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:

Flush your mouth with water. If product was swallowed and the victim is conscious, then make him drink little amount of water. Stop if he has nausea. Do not induce vomiting, if it is not advised by medical personnel. Do not give anything to unconscious person.

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

Inhalation:

Corrosive. May cause serious damage to upper respiratory tract, burns, chemical pneumonia and pulmonary edema. Symptoms include cough, dyspnea and sore throat.

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Skin:

Corrosive. Causes serious skin burns, deep ulceration, pale/cold skin.

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. Also causes damage to gastrointestinal tissues (perforation risk) which may lead to death. Symptoms include strong pain, vomiting, diarrhea, drop in blood pressure.

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:

Water jet on substance's surface.

5.2. Special hazards arising from the substance or mixture:

Non-flammable solid body. Exothermically reacts with water. When in contact with light metals (aluminium), product may create sodium hydroxide.

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:**For non-emergency personnel:**

Protective chemical resistant gloves (0.11 mm thick), safety glasses.

For emergency responders:

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

6.2. Environmental precautions:

Avoid discharge into drains, watercourses or onto the ground at all costs.

Contact local authorities In case of environment pollution.

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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:

Product is non-flammable and does not sustain burning.

Be very 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.

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.

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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:	Solid body - pellets
Odour:	Odourless
Odour threshold:	No data available
pH:	13-14 (50 g/l in 20°C)
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:	2120 kg/m ³ (in 20°C)
Solubility:	
A) Water:	soluble
B) Organic solvent:	methanol and ethanol
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: No data available Brix* \pm 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:

Very reactive. Violently reacts with acids and ammonium salts. Highly corrosive to light metals (tin, zinc, aluminium, brass). May create hydrogen. Explosion danger.

10.2 Chemical stability:

Substance is highly hygroscopic. Strong alkali. Unstable in normal conditions. Absorbs moisture and carbon dioxide from the air. It may become cloudy from precipitating sodium carbonate.

10.3 Possibility of hazardous reactions:

Reacts with some metals (aluminium) by creating explosive hydrogen.

10.4 Conditions to avoid:

No data available.

10.5 Incompatible materials:

Materials to avoid: water, aluminium, zinc, zirconium, phosphate, diborane, chlorine trifluoride, phosphorus pentoxide, chlorosulphonic acid, hydrochloric acid, hydrofluoric acid, nitric acid, sulfuric acid, oleum, acrolein, acrylonitrile, ethylene cyanohydrin, trichloroethylene.

10.6 Hazardous decomposition products:

Sodium oxide, hydrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

ACUTE TOXICITY:

Inhalation:

Corrosive. May cause serious damage to upper respiratory tract, burns, chemical pneumonia and pulmonary edema. Symptoms include cough, dyspnea and sore throat.

Skin:

Corrosive. Causes serious skin burns, deep ulceration, pale/cold skin.

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. Also causes damage to gastrointestinal tissues (perforation risk) which may lead to death. Symptoms include strong pain, vomiting, diarrhea, drop in blood pressure.

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

Sodium hydroxide (data for highly concentrated substance):

LD50: 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.

- 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.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity:

Data for the mixture ingredients:

Sodium hydroxide (data for highly concentrated substance):

Toxic to fish and algae. Effects depends on pH value. pH 11.0 – 11.5 means death of all fish species.

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):

No data available.

12.3. Bioaccumulative potential:

No data available.

12.4. Mobility in soil

No data available.

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:

Protect this product from spilling into ground waters, water reservoirs and sewage system. Possibility of neutralization in sewage plants. Does not cause biological oxygen deficit.

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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.

SECTION 14. TRANSPORT INFORMATION

TRADE NAME: PENETRATOR

- 14.1. UN Number:** 1823
14.2. UN proper shipping name: Sodium hydroxide, solid.
14.3. Transport hazard class(es): ADR class. 8. Classification code C6
14.4. Packing group: II
14.5. Environmental hazards: Section 13.
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).

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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.

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:

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

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

H290 – May be corrosive to metals.

H314 – Causes severe skin burns and eye damage.

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:

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

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