

DERAST GEL**Material Safety Data Sheet (MSDS)**

Creation Date 10.08.2000
Revision Date: 25.09.2015
Version: 1.0

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier: DERAST GEL**

1.2 Relevant identified uses of the substance or mixture and uses advised against: Acidic formulation intended for remove large amounts of rust, of lime and cement infiltration from acid-resistant surfaces. Do not use on enamel surfaces. Do not allow to dry the surface covered with the working solution.

1.3 Details of the supplier of the safety data sheet:

TENZI Sp. z o.o., 72-002 Dołuje, Skarbimierzyce 20, e-mail: info@tenzi.pl, www.tenzi.pl, tel. +48 91 3119777, fax. +48 91 3119779 E-mail address for a competent person responsible for MSDS: 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 Irrit. 2 H315 – Causes skin irritation

Eye Dam. H318 – Causes serious eye damage.

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

Met. Corr. 1 H290 – May be corrosive to metals.

2.2. Label elements

According to 1272/2008/EC*

Hazard symbols:



and signal words: **DANGER**

Hazard statements:

H315 – Causes skin irritation.

H318 – Causes serious eye damage.

H290 – May be corrosive to metals

H412 – Harmful to aquatic life with long lasting effects.

Precautionary statements

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

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

P310 – Immediately call a POISON CENTER or doctor/physician.

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

DERAST GEL

3.2 Mixture

Composition (according to: 648/2004/EC): <10% hydrochloric acid, <5% cationic surfactants, excipients not classified as dangerous

Product / ingredient name	Concentration [% weigh]	CAS / EC	Index-No.	REACH registration number	Classification
					Regulation (EC) No. 1272/2008 [CLP]
Hydrochloric acid (30%)	< 10 (*)	--- 231-595-7	017-002-01-X	01-2119484862-27-XXXX	Met. Corr. 1 H290, Skin Corr. 1B H314, STOT SE 3 H335
Cationic Surfactant	< 5	25307-17-9 246-807-3	---	01-2119510876-35-0000	Acute Tox. 4 H302, Skin Corr. 1B, Aquatic Acute 1 H400, Aquatic Chronic 1 H410

(*) - Based on the content of active acid

The full texts of 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 – 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 get medical attention and show this MSDS 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 – irritant, prolonged contact may cause damage to the skin

Eyes – causes serious eye damage.

Ingestion – irritant, it can cause burns to the mouth, throat, esophagus, stomach, nausea, vomiting and shock.

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

Get medical attention. Self-contained eye wash and fresh water should be readily available.

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: sand, foam, water, carbon dioxide.

Extinguishing media which shall not be used for safety reason: unknown.

5.2. Special hazards arising from the substance or mixture

Product is non-flammable. In case of fire, can create a hazardous gaseous products or fumes. In contact with metals it produces hydrogen (risk of explosion). In case of fire can be formed hydrogen chloride and chlorine.

5.3. Advice for firefighters

Firefighters should wear protective clothing and self-contained breathing apparatus. In case of fire warn the people nearby. 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: self-contained breathing apparatus, chemical resistant gloves thickness of 0.11 mm, safety

DERAST GEL

glasses

For emergency responders: self-contained breathing apparatus, protective clothes, chemical resistant gloves thickness of 0.11 mm, safety glasses/goggles.

Avoid skin and eyes contact. Provide proper ventilation.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground. In the case of environmental pollution inform the appropriate local authority.

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, use absorbent materials (sand solid, sawdust, fines limestone). Clean-up materials store for disposal as hazardous waste. Decontaminate polluted area with water.

Neutralize with alkaline material (soda ash, slaked lime or Sodium Hydroxide)

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.

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

People with skin allergy should not have contact with this product.

After usage keep container tightly closed. Keep 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 close, original plastic container. Store this product in dry environment that will be maintained at temperature between 5°C - 30°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):**Hydrochloric acid (data for high concentrations substance):**

DNEL Exposure frequency: short term, Exposure route: inhalation, Value: 15 mg/m³, Group: workers Type of effect: local effect

DNEL Exposure frequency: long term, Exposure route: inhalation, Value: 8 mg/m³, Group: workers Type of effect: local effect

PNEC Aqua (fresh water): 0,036 mg/l

PNEC Aqua (marine water): 0,036 mg/l

PNEC (intermittent releases): 0,045 mg/l

PNEC Sediment (freshwater): is not expected exposure to the solid

PNEC Sediment (marine water): is not expected exposure to the solid

PNEC Soil: 0,036 mg/kg

Cationic Surfactant (data for high concentrations substance):

DNEL Exposure frequency: long term, Exposure route: dermal, Value: 0,25 mg/kg bw, Group: workers Type of effect: systemic effect

DNEL Exposure frequency: long term, Exposure route: inhalation, Value: 1,76 mg/m³, Group: workers Type of effect: local effect

DNEL Exposure frequency: long term, Exposure route: dermal, Value: 0,179mg/kg bw mg/kg bw/day, Group: general population/consumers Type of effect: systemic effect

DNEL Exposure frequency: long term, Exposure route: inhalation, Value: 0,621 mg/m³, Group: general population/consumers, Type of effect: systemic effect

DERAST GEL

DNEL Exposure frequency: long term, Exposure route: oral, Value: 0,179 mg/m3, Group: general population/consumers,
Type of effect: systemic effect
PNEC Aqua (fresh water): 0,000214 mg/l
PNEC Aqua (marine water): 0,000021 mg/l
PNEC Sewage treatment plant: 1,5 mg/l
PNEC Sediment (freshwater): 1,692 mg/kg dry matter
PNEC Sediment (marine water): 0,1692 mg/kg dry matter
PNEC Soil: 5 mg/kg dry matter

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

RESPIRATORY PROTECTION: mask with the vapor absorber of acid

HAND PROTECTION: acid-resistant gloves for example: DERMATRIL 740 with thickness of 0.11 mm

EYE/FACE PROTECTION: safety glasses

SKIN PROTECTION: protective clothes

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

APPEARANCE/FORM: maroon gel

ODOUR: characteristic - irritant

ODOUR THRESHOLD: not identified

pH – 1 ± 1

MELTING/FREEZING POINT: not identified

INITIAL BOILING POINT AND BOILING RANGE: not identified

FLASH POINT: not identified

EVAPORATION RATE: not identified

FLAMMABILITY (SOLID,GAS): not identified

UPPER/LOWER FLAMMABILITY (UEL/LEL): not identified

VAPOUR PRESSURE: not identified

VAPOUR DENSITY: not identified

RELATIVE DENSITY: $1,033 \pm 0,020 \text{ g/cm}^3$

SOLUBILITY:

a) WATER – soluble

b) ORGANIC SOLVENT – not identified

PARTITION COEFFICIENT N-OCTANOL/WATER: not identified

DECOMPOSITION TEMPERATURE: not identified

VISCOSITY: min. 120s (Ford Viscosity Cup $\varnothing 4 \pm 0,015 \text{ mm}$)

EXPLOSIVE PROPERTIES: not identified

OXIDISING PROPERTIES: not identified

9.2. Other information

REFRACTIVE INDEX – $19,2\% \text{ Brix}^* \pm 5\%$

* - 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**

React with bases and oxidizers.

10.2 Chemical stability

Stable under recommended storage conditions (see point 7)

10.3 Possibility of hazardous reactions

The mixture in contact with light metals produces hydrogen which has highly explosive properties. With a strong base reacts violently with evolution of heat.

10.4 Conditions to avoid

DERAST GEL

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

10.5 Incompatible materials

Materials to be avoided: aluminum and other metals, amines, carbides, hydrides, fluorine, alkali metals, potassium permanganate, strong bases, salts of acids.

10.6 Hazardous decomposition products

Hydrogen chloride, chlorine, hydrogen.

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

- **INHALATION:** irritant, may cause respiratory irritation, cough, dyspnea and sore throat.
- **DIGESTIVE SYSTEM:** irritant, it can cause burns to the mouth, throat, esophagus, stomach, nausea, vomiting and shock.
- **SKIN CONTACT:** irritant, prolonged contact may cause damage to the skin
- **EYE CONTACT:** irritant, in case of prolonged contact can cause eye damage

ATEmix = 63291 (acute toxicity oral)

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

LD50 238-277 mg/kg (rat, oral)

LD50> 5010 mg/kg (rabbit, skin)

LC50 - 4701 pp./0,5h (rat, inhalation)

Toxic if ingested, formed burns and damage to the mouth, esophagus and gastrointestinal tract, the risk of perforation of the esophagus and stomach.

Skin corrosion/irritation: corrosive, causes burns

Serious eye damage/eye irritation: causes irreversible burns, risk of permanent blindness.

Respiratory or skin sensitization: not sensitizing

Germ cell mutagenicity: no mutagenic

Carcinogenicity: not carcinogenic effects

Aspiration hazard: corrosive to the respiratory system.

Cationic Surfactant (data for high concentrations substance):

LD50: > 300 - 2000 mg/kg (rat, oral) Test method OECD 401, Factor M - 10

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

In aqueous hydrogen chloride effect it is dependent on pH as the water completely dissociates into ions, thereby not causing adverse effects. The substance in this form does not have the properties of sediment deposition.

Ecotoxicity

-for fish: LC50 20.5 mg / l / 96h (pH 3.25 - 3.5)

-for daphnia: EC50 / LC50 0.45 mg / l / 4l

-for algae: EC50 0.76 mg / l / 72h (pH 4.7), NOEC 0.364 mg / l // 72h (pH 5.0, according to the OECD 201); EC50 / LC50 0.73 mg / l (algae, fresh water)

Cationic Surfactant (data for high concentrations substance):

- for fish: LC50: >0,1 - 1 mg/l/96h

- for Daphnia: EC50: >10,01 - 0,1 mg/l/48h

The value is estimated from tests on similar products

- For algae : EC50: > 0,01 - 0,1 mg/l/72h (Pseudokirchneriella subcapitata (green algae)), Method: OECD 201

M factor acute = 10

M factor chronic = 1

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.

Hydrochloric acid (data for high concentrations substance):

Readily biodegradable in water and in air.

In the water completely dissociates into ions.

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

Readily Biodegradable. > 60% BOD/28 d (acc.to OECD 301D)

12.3 Bioaccumulative potential:**Hydrochloric acid (data for high concentrations substance):**

It is not bioaccumulative.

Cationic Surfactant (data for high concentrations substance):

Not expected to bioaccumulate

12.4 Mobility in soil

Depending on the buffering capacity of the soil, the concentration of hydrogen ions will be neutralized by organic or inorganic substances present in the soil or may be a rapid drop in pH at the site of the leak.

Cationic Surfactant (data for high concentrations substance):

Immobile in soil

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

Might be hazardous for biological wastewater treatment facilities (decreases pH).

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 rinse 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: DERAST GEL

14.1. UN Number: not applicable

14.2. UN proper shipping name: not applicable

14.3. Transport hazard class(es): not applicable

14.4. Packing group: not applicable

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: not applicable

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

DERAST GEL

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:

Hydrochloric acid: A Chemical Safety Assessment has been carried out.

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

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 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 1 - Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 3 - Hazardous to the aquatic environment - Chronic Hazard, Category 3

Eye Dam. 1 – Serious eye damage, category 1

Skin Irrit. 2 - Causes skin irritation, category 2

Eye Irrit. 2 - Causes eye irritation, category 2

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

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

Skin Corr. 1B - corrosive to the skin, category 1B

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.

H319 – Causes serious eye irritation.

H335 – May cause respiratory irritation.

H400 – Very toxic to aquatic life.

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

H412 – Harmful to aquatic life with long lasting effects.

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 producer recommendations)

Changes compared to the previous version:

DERAST GEL

- section 6.8 - thickness of gloves. Updated cards versions are now available on www.tenzi.pl

This Material Safety Data Sheet contains 8 pages. Changes in the content by unauthorized persons is prohibited.

Skarbimierzyce 25.09.2015