

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: DS-1**

1.2 Relevant identified uses of the substance or mixture and uses advised against: Concentrated liquid having bactericidal and fungicidal properties, intended for disinfecting surfaces and production lines in the food industry, including the surfaces in contact with food, disinfecting the tools in the medical area (wellness center facilities, hairdressing and beauty, catering establishments, etc.). Permission for biocidal product: 5402/13.

1.3 Details of the supplier of the safety data sheet:

TENZI Sp. z o.o., 72-002 Dołuje, Skarbimierzycze 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**

Flam liq. 3 H226 – Flammable liquid and vapour.
Skin Irrit. 2 H315 – Causes skin irritation.
Eye Dam. 1 H318 – Causes serious eye damage.
STOT SE 3 H336 – May cause drowsiness or dizziness.
Aquatic Acute 1 H400 – Very toxic to aquatic life.

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

Hazard symbols



and signal words: **DANGER**

Hazard statements:

H226 – Flammable liquid and vapour.
H315 – Causes skin irritation.
H318- Causes serious eye damage
H336 – May cause drowsiness or dizziness.
H400- Very toxic to aquatic life

Precautionary statements

P210 – Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
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.
P405 – Store locked up.

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 Mixture

Composition (according to: 648/2004/EC): <5% Cationic surfactants, <50% alcohols

Product / ingredient name	Concentration [% weigh]	CAS / EC	Index-No.	REACH registration number	Classification
					Regulation (EC) No. 1272/2008 [CLP]
Propan-2-ol	50	67-63-0 200-661-7	603-117-00-0	01-21194575 58-25-XXXX	Flam Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
Alkyl (C12-16) dimethylbenzylammonium chloride (ADBAC/BKC (C12-16)) (active substance)	1,6	68424-85-1 270-325-2	---	---	Acute Tox. 4 H302, Skin Corr. 1 B H314, Aquatic Acute 1 H400
Didecyl dimethylammonium chloride (DDAC) (active substance)	1,6	7173-51-5 230-525-2	---	01-21199459 87-15-XXXX	Acute Tox. 3 H301, Skin Corr. 1 B H314, Aquatic Acute 1 H400
Alkyl (C12-C14) (ethylbenzyl) ammonium chloride (ADEBAC (C12-C14)) (active substance)	1,6	85409-23-0 287-090-7	---	---	Acute Tox. 4 H302, Skin Corr. 1 B H314, Aquatic Acute 1 H400

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. 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– if swallowed, 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– long-term exposures or un-well ventilated area may cause: drowsiness, dizziness, upper respiratory tract irritation.

Skin– causes skin irritation (redness).

Eyes– corrosive, causes serious eye damage.

Ingestion– if swallowed, may cause irritation.

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

Suitable extinguishing media: alcohol-resistant foam or film forming foam. On large fire use water spray. Water fog or dry

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extinguishing agent.

Extinguishing media which shall not be used for safety reason: DO NOT use a solid water stream.

5.2. Special hazards arising from the substance or mixture

Product is flammable.

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**

For non-emergency personnel: chemical resistant gloves thickness of 0.11 mm, safety glasses/goggles

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

6.2. Environmental precautions

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.

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 5⁰C - 35⁰C. 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.

TLV-TWA, TLV-STEL and TLV-C values for substances (according to MSDS or Chemical Safety Report):

Propan-2-ol (data for high concentrations substance):

TLV-TWA: 900 mg/m³

TLV-STEL: 1200 mg/m³

Alkyl (C12-16)dimethylbenzylammonium chloride (ADBAC/BKC (C12-16)) (active substance) (data for high concentrations substance):

TLV-TWA TLV-STEL: not identified

Didecyldimethylammonium chloride (DDAC) (active substance) (data for high concentrations substance):

TLV-TWA TLV-STEL: not identified

Alkyl (C12-C14) (ethylbenzyl)ammonium chloride (ADEBAC (C12-C14) (active substance) (data for high concentrations substance):

TLV-TWA TLV-STEL: not identified

DNEL /PNEC values for substances (according to MSDS or Chemical Safety Report):**Propan-2-ol (data for high concentrations substance):**

DNEL Exposure frequency: long term, Exposure route: dermal, Value: 888 mg/kg , Group: workers

DNEL Exposure frequency: long term, Exposure route: inhalation, Value: 500 mg/m³, Group: workers

DNEL Exposure frequency: long term, Exposure route: dermal, Value: 319 mg/kg bw/day, Group: consumers

DNEL Exposure frequency: long term, Exposure route: inhalation, Value: 89 mg/m³, Group: consumers

DNEL Exposure frequency: long term, Exposure route: oral, Value: 29 mg/kg/bw/day, Group: consumers

PNEC Aqua (fresh water) 140,9 mg/l

PNEC Aqua (marine water) 140,9 mg/l

PNEC Sediment (freshwater) 552 mg/kg

PNEC Soil 28 mg/kg

Alkyl (C12-16)dimethylbenzylammonium chloride (ADBAC/BKC (C12-16)) (active substance) (data for high concentrations substance):

DNEL, PNEC: not identified

Didecyldimethylammonium chloride (active substance) (data for high concentrations substance):

DNEL, PNEC: not identified

Alkyl (C12-C14) (ethylbenzyl)ammonium chloride (ADEBAC (C12-C14) (active 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:** not be required.**HAND PROTECTION:** chemical resistant gloves thickness of 0.11 mm (for example: DERMATRIL) is required for high concentrations.**EYE/FACE PROTECTION:** safety glasses/goggles.**SKIN PROTECTION:** not be required.**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

APPEARANCE/FORM: transparent liquid

ODOUR: characteristic alcoholic odour

ODOUR THRESHOLD: not identified

pH – 8±1

MELTING/FREEZING POINT: not identified

INITIAL BOILING POINT AND BOILING RANGE: not identified

FLASH POINT: 34⁰C

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: 0,898÷0,020 g/cm³

SOLUBILITY:

a) WATER – soluble

b) ORGANIC SOLVENT – not identified

PARTITION COEFFICIENT N-OCTAN OL/WATER: not identified

AUTO-IGNITION TEMPERATURE: not identified

DECOMPOSITION TEMPERATURE: not identified

VISCOSITY: not identified

EXPLOSIVE PROPERTIES: not identified

OXIDISING PROPERTIES: not identified

9.2. Other information

REFRACTIVE INDEX – 27,7% 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**

Mixture is flammable.

10.2 Chemical stability

Stable under recommended storage conditions (see point 7)

10.3 Possibility of hazardous reactions

Not applicable.

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

Does not occur.

10.6 Hazardous decomposition products

Thermal decomposition expected to product carbon monoxide.

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

-**INHALATION:** may cause drowsiness and dizziness.

-**DIGESTIVE SYSTEM:** if swallowed, may cause irritation of the mucous membrane

-**SKIN CONTACT:** causes skin irritation.

-**EYE CONTACT:** causes serious eye damage.

ATEmix= 6861 (Acute toxicity, oral)

DETAILS OF PARTICULAR COMPONENTS (according to substances's MSDS)**Propan-2-ol (data for high concentrations substance):**

LD50 >2000 mg/kg (Acute toxicity, oral)

LD50> 2000 mg/kg (Acute toxicity, dermal)

LC50>5 mg/l

Local effects:

-skin- non-irritant

-eyes- irritant

Not sensitising.

High vapor concentration may cause neurotic effects.

Germ cell mutagenicity: Ames test negative

Carcinogenicity: not carcinogenic effects

Reproductive toxicity: no adverse effects were observed

Specific target organ toxicity (single exposure): no data available.

Specific target organ toxicity (repeated exposure): no data available.

Aspiration hazard: no data available.

Alkyl (C12-16)dimethylbenzylammonium chloride (ADBAC/BKC (C12-16)) (active substance) (data for high concentrations substance):

Acute oral toxicity (LD50): ca. 344 mg/kg Species: rat

Acute dermal toxicity (LD50): ca. 3 340 mg/kg Species: rabbit

Skin irritation: corrosive Species: rabbit Exposure time: 24 h Method: DOT.

Eye irritation: corrosive Species: rabbit Method: DOT.

Skin sensitisation: Test type: Buehler test ; Species: Guinea Pig; Result: negative. Method: OECD-Guideline 406

Genotoxicity in vitro: Negative. Ames test, Salmonella typhimurium. Method: OECD 471 Negative Chromosome aberration

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test in vitro, Human lymphocytes Method: OECD 473

Didecyldimethylammonium chloride (DDAC) (active substance) (data for high concentrations substance):

Acute oral toxicity (LD50): 238 mg/kg Species: rat Method: OECD-Guideline 401

Acute dermal toxicity: (LD50): 3 342 mg/kg Species: rabbit

Skin irritation: irritant Species: rabbit Exposure time: 3 min. Method: OECD 404

Sensitisation: Result: negative Species: Guinea Pig; Buehler Test type: US-EPA

Genotoxicity in vitro:

Negative. Ames test, Salmonella typhimurium. Method: OECD 471

Negative Chromosome aberration test in vitro, CHO cells

Mutagenic Potential: Negative, CHO cells

Genotoxicity in vivo: Negative Chromosome aberration test in vivo (oral) Species: rat Method: OECD 475

Alkyl (C12-C14) (ethylbenzyl)ammonium chloride (ADEBAC (C12-C14) (active substance):

No data available.

SECTION 12. ECOLOGICAL INFORMATION**12.1 Toxicity****DETAILS OF PARTICULAR COMPONENTS:****Propan-2-ol (data for high concentrations substance):**

- for fish: LC50 > 100 mg/l/48h.

- for daphnia: EC50 > 100 mg/l/48h.

- for algae: EC50 > 100 mg/l/72h.

Alkyl (C12-16)dimethylbenzylammonium chloride (ADBAC/BKC (C12-16) (active substance) (data for high concentrations substance):

Toxicity to fish (LC50) : 0,28 mg/l. Species: Pimephales promelas (gold fish). Acute toxicity. Exposure time: 96 h. Method: US-EPA.

Toxicity to fish (NOEC): 0,032 mg/l Species: Pimephales promelas (gold fish). Early-life Stage. Exposure time: 34 d Method: EPA - FIFRA

Toxicity to Daphnia (EC50): 0,016 mg/l Species: Daphnia magna Immobilisation Test Exposure time: 48h Method: OECD 202

Toxicity to Daphnia (NOEC): 0,0042 mg/kg Species: Daphnia magna Reproduction Test Exposure time: 21 d Method: EPA - FIFRA

Toxicity to Algae (ErC50): 0,049 mg/l Species: Pseudokirchneriella subcapitata (green algae) Cell multiplication inhibition test Exposure time: 71h Method: OECD 201

Toxicity to bacteria (EC50): 7,75 mg/l Species: Activated sludge Respiration Inhibition Test Exposure time: 3h Method: OECD 209

Toxicity to earthworm (LC50): 7 070 mg/kg Species: Eisenia foetida Acute toxicity Exposure time: 14 d Method: OECD 207

Toxicity to earthworm (EC50): >1000 mg/kg Soil Microflora Exposure time: 28 d Method: OECD 216

Toxicity to ground Organisms (EC50): 277 - 1900 mg/kg Exposure time: 14 d Method: OECD 208

Behaviour in environmental : Mobility in Soil Method : US- EPA

M Factor = 10

Didecyldimethylammonium chloride (active substance) (data for high concentrations substance):

Toxicity to fish (LC50) : 0,19 mg/l. Species: Pimephales promelas (gold fish). Acute toxicity. Exposure time: 96 h. Method: US-EPA.

Toxicity to fish (NOEC): 0,032 mg/l Species: Danio rerio. Acute toxicity Exposure time: 34 d Method: OCDE 210

Toxicity to Daphnia (EC50): 0,062 mg/l Species: Daphnia magna Immobilisation Test Exposure time: 48h Method: EPA-FIFRA

Toxicity to Daphnia (NOEC): 0,010 mg/l Species: Daphnia magna Reproduction Test Exposure time: 21 d Method: OECD 211

Toxicity to Algae (ErC50): 0,026 mg/l Species: Pseudokirchneriella subcapitata (green algae) Cell multiplication inhibition test Exposure time: 96 h Method: OECD 201

Toxicity to bacteria (EC50): 11 mg/l Species: Activated sludge Respiration Inhibition Test Exposure time: 3h Method: OECD 209

Toxicity to earthworm (NOEC): > 1000 mg/kg Species: Eisenia foetida Acute toxicity Exposure time: 14 d Method: OECD 207

Toxicity to ground Organisms (EC50): 283- 1670 mg/kg mg/kg Exposure time: 14 d Method: OECD 208

Behaviour in environmental : Mobility in Soil Method : US- EPA

M Factor = 10

Alkyl (C12-C14) (ethylbenzyl)ammonium chloride (ADEBAC (C12-C14) (active substance):

No data available.

12.2 Persistence and degradability:

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

Propan-2-ol (data for high concentrations substance):

Biodegradability: >70% after 10 days.

Alkyl (C12-16)dimethylbenzylammonium chloride (ADBAC/BKC (C12-16)) (active substance) (data for high concentrations substance):

Stability in water : Product is hydrolytically stable Method: EPA- FIFRA

Biodegradability: Confirmatory test OECD: > 90% Method: OECD 303 A

Modified SCAS Test: > 99 % Testing period: 7 d Method: OECD 302 A

CO2 Evolution: 95,5% Readily biodegradable. Testing period: 28 d Method: OECD 301 B

Didecyldimethylammonium chloride (DDAC) (active substance) (data for high concentrations substance):

Stability in water : Abiotic degradation Product is hydrolytically stable Method: EPA- FIFRA

Biodegradability: modified Sturm Test: 72 % Readily biodegradable Testing period: 28 d Method: OECD 301 B

Test Die-Away: 93,3% Testing period: 28d

Confirmatory test OECD: > 91% Testing period: 24 - 70 d Method: OECD 303 A

Alkyl (C12-C14) (ethylbenzyl)ammonium chloride (ADEBAC (C12-C14) (active substance):

No data available.

12.3 Bioaccumulative potential:**Propan-2-ol (data for high concentrations substance):**

logPow 0,05

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 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: DS-1

14.1. UN Number: 3082

14.2. UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s (Quaternary ammonium compounds)

14.3. Transport hazard class(es): ADR class. 9

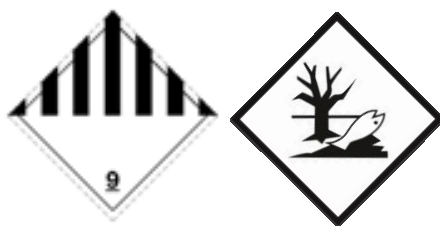
14.4. Packing group: III

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:

Propan-2-ol: 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 due to the flammable characteristics were based on studies ignition temperature and the ability of liquids to sustain combustion. The remaining classifications were made based on a calculation method and the concentrations of hazardous ingredients in the mixture.

The full list of phrases and H symbols from Section 2 and 3:

Flam liq. 2 - Flammable liquid, category 2

Eye Irrit. 2 - Causes eye irritation, category 2

Flam liq. 3 - Flammable liquid, category 3

Skin Irrit. 2 - Causes skin irritation, category 2
Eye Dam. 1- Serious eye damage, category 1
STOT SE 3 - Specific target organ toxicity - Single exposure STOT, category 3.
Aquatic Acute 1 - Hazardous to the aquatic environment - Acute Hazard, category 1
Acute Tox. 4 - Acute toxicity, category 4
Skin Corr. 1B - Corrosive to skin, category 1B
Acute Tox. 3 - Acute toxicity, category 3

H225 – Highly flammable liquid and vapor.
H226 – Flammable liquid and vapour.
H301 – Toxic if swallowed.
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.
H336 – May cause drowsiness or dizziness.
H400 – Very toxic to aquatic life.

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).

The product is certified by the National Institute of Hygiene No **HŻ/1796/2013**.

Changes compared to the previous version:

- section 6,8 - thickness of gloves. Updated cards versions are now available on www.tenzi.pl

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

Skarbimierzyce 25.09.2015