

**Material Safety Data Sheet (MSDS)**

Creation Date 01.06.2015  
Revision Date: 07.10.2015  
Version: 1.0

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

**1.2 Relevant identified uses of the substance or mixture and uses advised against:** Preparation for the renewal of quartz ceramic coatings. Provides hydrophobicity, it gives the effect of a super slide.

**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](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**

Flam Liq. 2 H225 – Highly flammable liquid and vapour.

Eye Irrit. 2 H319 – Causes serious eye irritation

Asp. Tox. 1 H304 – May be fatal if swallowed and enters airways.

STOT SE 3 H336 – May cause drowsiness or dizziness

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

Hazard symbols :



Signal words : **DANGER**

**Hazard statements:**

H225 – Highly flammable liquid and vapour

H319 – Causes serious eye irritation

H336 – May cause drowsiness or dizziness.

H304 – May be fatal if swallowed and enters airways.

**Precautionary statements**

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

P271 – Use only outdoors or in a well-ventilated area.

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

P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331 – Do NOT induce vomiting.

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):** alcohols, solvents, excipients not classified as hazardous

Product / ingredient name	Concentration [% weigh]	CAS / EC	Index-No.	REACH registration number	Classification
					Regulation (EC) No. 1272/2008 [CLP]
Propan-2-ol / Isopropanol	<70	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
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	< 30	--- 919-857-5	---	01-21194632 58-33-XXXX	Flam Liq. 3. H226, Asp. Tox.1 H304, STOT SE 3 H336

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 victim to fresh air. Lay patient down in semi-recumbent posture, physical activity may cause pulmonary edema. If breathing has stopped, administer artificial respiration. 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-** If swallowed, DO NOT induce vomiting. Keep calm. **Immediately contact a doctor** and show this MSDS or label.

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

**Inhalation-** in case of prolonged exposure to vapors of the product may be irritation of the upper respiratory tract, drowsiness, dizziness

**Skin-** in case of prolonged contact may cause irritation

**Eyes-** causes eye irritation

**Ingestion-** If swallowed and getting into the respiratory system may cause pulmonary edema and chemical pneumonia. May be fatal if swallowed.

#### 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:** dry extinguishing agent, foam, sand, carbon dioxide, water spray or fog

**Extinguishing media which shall not be used for safety reason:** Do not use solid water streams.

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

Highly flammable liquid and vapour. Incomplete combustion may contain carbon monoxide. Product floats on the water surface and can be re-ignited. The vapors are heavier than air, remain well above the ground and can be ignited from a distance.

#### 5.3. Advice for firefighters

Firefighters should wear full 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, protective clothes, chemical resistant gloves thickness of 0.11 mm, safety glasses

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

**6.2. Environmental precautions**

Do not allow to release drains, groundwater and surface water.

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

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. 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 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 - 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):****Propan-2-ol / Isopropanol (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/m<sup>3</sup>, 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/m<sup>3</sup>, 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

**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (data for high concentrations substance):**

DNEL Exposure frequency: chronic, Exposure route: dermal, Value: 300 mg/kg/day , Group: workers Type of effect: systemic effect

DNEL Exposure frequency: chronic, Exposure route: inhalation, Value: 1500 mg/m<sup>3</sup>, Group: workers Type of effect: systemic effect

DNEL Exposure frequency: chronic, Exposure route: dermal, Value: 300 mg/kg/day, Group: consumers, Type of effect:

systemic effect

DNEL Exposure frequency: chronic, Exposure route: inhalation, Value: 900 mg/m<sup>3</sup>, Group: consumers Type of effect: systemic effect

DNEL Exposure frequency: chronic, Exposure route: oral, Value: 300 mg/kg/day, Group: consumers, Type of effect: systemic effect

**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 740 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: transparent liquid

ODOUR: characteristic of diluent

ODOUR THRESHOLD: not identified

pH 7±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: 0,780±0,020 g/cm<sup>3</sup>

SOLUBILITY:

a) WATER – non-soluble

b) ORGANIC SOLVENT – not identified

PARTITION COEFFICIENT N-OCTANOL/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 – not identified % 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 highly flammable.

### 10.2 Chemical stability

Stable under recommended storage conditions (see point 7)

### 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid

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

and other sources of ignition

**10.5 Incompatible materials**

Materials to be avoided: strong oxidants.

**10.6 Hazardous decomposition products**

Unknown.

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

- **INHALATION:** in case of prolonged exposure to vapors of the product may be irritation of the upper respiratory tract, drowsiness, dizziness
- **DIGESTIVE SYSTEM:** if swallowed and getting into the respiratory system may cause pulmonary edema and chemical pneumonia. May be fatal if swallowed.
- **SKIN CONTACT:** in case of prolonged contact may cause irritation
- **EYE CONTACT:** causes eye irritation

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

LD<sub>50</sub> > 2000 mg/kg (Acute toxicity, oral)

LD<sub>50</sub> > 2000 mg/kg (Acute toxicity, dermal)

LC<sub>50</sub> > 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

**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (data for high concentrations substance):**

LD<sub>50</sub> > 5000 mg/kg (rat, oral) acc. to OECD 401.

LD<sub>50</sub> > 5000 mg/kg (rabbit, skin) acc to OECD 402.

LC<sub>50</sub> > 4951 mg/m<sup>3</sup>/4h (rat, inhalation) acc. to OECD 403.

Skin corrosion/irritation: Long term skin exposure may cause mild skin irritation.

Serious eye damage/eye irritation: May cause moderate but temporary irritation to the eyes.

Specific target organ toxicity (single exposure): may cause drowsiness or dizziness.

Aspiration hazard: May be fatal if swallowed and enters airways.

High vapor concentration over recommended exposure limits may cause eyes and respiratory tract irritation, may cause headaches, drowsiness and nausea, anaesthetic and other effects on the central nervous system.

Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Small amount of this product may be drawn into the lungs by either swallowing or vomiting may lead to chemical pneumonia and pulmonary edema.

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

- for fish: LC<sub>50</sub> > 100 mg/l/48h.

- for Daphnia: EC<sub>50</sub> > 100 mg/l/48h.

- for algae: EC<sub>50</sub> > 100 mg/l/72h.

**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (data for high concentrations substance):**

-for Daphnia: EL<sub>0</sub> 1000 mg/l/48h (Daphnia magna)

- for algae: NOERL 100 mg/l/72h; EL<sub>50</sub> > 1000 mg/l/72h (Pseudokirchneriella subcapitata)

- for fish: LL50 >1000 mg/l/96h (Oncorhynchus mykiss)

**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.

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

Biodegradability: >70% after 10 days

**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (data for high concentrations substance):**

Product is quickly biodegradable.

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

Potential for bioaccumulation: logPow 0,05

**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (data for high concentrations substance):**

No data available

**12.4 Mobility in soil**

The product is very easy volatile; quickly evaporated. Not expected to deposition of sediments and solids in the wastewater.

**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: RLS

14.1. UN Number: 1987

14.2. UN proper shipping name: ALCOHOLS, N.O.S. (isopropanol)

14.3. Transport hazard class(es): 3

14.4. Packing group: III

14.5. Environmental hazards: Product is not 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 / Isopropanol:** A Chemical Safety Assessment has been carried out.

**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:** 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.

Flammability classification of chemical mixture was done based on specific ignition temperature. 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. 3 - Flammable liquid, category 3

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

Asp. Tox. 1 - Aspiration hazard, category 1

Flam liq. 2 - Flammable liquid, category 2

Eye Irrit. 2 - Causes eye irritation, category 2

H225 – Highly flammable liquid and vapour

H226 – Flammable liquid and vapour

H304 – May be fatal if swallowed and enters airways.

H319 – Causes serious eye irritation.

H336 – May cause drowsiness or dizziness.

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.

**RLS** was submitted to Inspector for Chemical Substances.

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

**Changes compared to the previous version:**

- section 6,8- thickness of gloves. Updated cards versions are now available on [www.tenzi.pl](http://www.tenzi.pl)

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

Skarbimierzyce 07.10.2015