

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: G2B**

1.2 Relevant identified uses of the substance or mixture and uses advised against: A two-component product to impregnate the surface of the glass - a catalyst.

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**

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

Eye Irrit. 2 H319 – Causes serious eye irritation.

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.

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.

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): <50% Isopropanol; 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	<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

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.

Skin contact– If product comes in contact with the skin immediately remove all contaminated clothing and flush exposed area with large amounts of water. Obtain medical attention if skin reaction occurs.

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 – it may cause respiratory irritation, drowsiness, dizziness.

Skin – for people with skin allergy tendency may cause skin sensitisation.

Eyes – causes serious eye irritation.

Ingestion – if swallowed, may cause irritation of the mucous membrane.

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: use extinguishing measures that are appropriate to local circumstances and surrounding environment. Water mist, water jet or extinguishing powder.

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

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

6.2. Environmental precautions

Prevent the spread of the product into sewers, surface water and groundwater.

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 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/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

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: not be required.

HAND PROTECTION: not be required.

EYE/FACE PROTECTION: safety glasses

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 odour of alcohol
ODOUR THRESHOLD: not identified
pH 2±1
MELTING/FREEZING POINT: not identified
INITIAL BOILING POINT AND BOILING RANGE: not identified
FLASH POINT: 14⁰C
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: 0,890 ± 0,020 g/cm³
SOLUBILITY:
a) WATER – soluble
b) ORGANIC SOLVENT – not identified
PARTITION COEFFICIENT N-OCTANOL/WATER: not identified
AUTO-IGNITION TEMPERATURE: not identified
DECOMPOSITION TEMPERATURE: not identified
VISCOSITY: 3,7 mPa*s (20⁰C)
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 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

Materials to be avoided: do not occur.

10.6 Hazardous decomposition products

Combustion forms carbon monoxide.

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

- **INHALATION:** it may cause respiratory irritation, drowsiness, dizziness.
- **DIGESTIVE SYSTEM:** if swallowed, may cause irritation of the mucous membrane.
- **SKIN CONTACT:** for people with skin allergy tendency may cause skin sensitisation.
- **EYE CONTACT:** causes serious eye irritation.

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

LD>50 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

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

DETAILS OF PARTICULAR COMPONENTS

Propan-2-ol /Isopropanol (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.

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.

12.3 Bioaccumulative potential:

Propan-2-ol /Isopropanol (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 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: G2B

14.1. UN Number: 1219

14.2. UN proper shipping name: Isopropanol or isopropyl alcohol.

14.3. Transport hazard class(es): 3

14.4. Packing group: II

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.

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 of the mixture, the remaining classification was made by a calculation method based on 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

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

H225 – Highly flammable liquid and vapor

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.

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 producer recommendations)

Changes compared to the previous version:

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

This Material Safety Data Sheet contains 7 pages. Changes in the content by unauthorized persons is prohibited.

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