1 Identification of the substance/mixture and of the company/undertaking

• **Product identifier**
  - **Trade name:** UV-VIS Reinigungslösung 1
  - **Article number:** 481079 (VIS C/Set)
  - **Relevant identified uses of the substance or mixture and uses advised against:**
    - **Product category:** PC21 Laboratory chemicals
    - **Process category:** PROC15 Use as laboratory reagent
  - **Application of the substance / the preparation:** Cleaning material/ Detergent
  - **Manufacturer/Supplier:**
    - YSI
    - 1725 Brannum Lane Yellow Springs, OH 45387 USA
    - phone: +1 937-767-7241

  - Information department: Email: MSDSinfo@Xyleminc.com
  - **Emergency telephone number:** Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

2 Hazards identification

• **Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008:** The product is not classified according to the CLP regulation.

  - **Label elements:**
    - **Labelling according to Regulation (EC) No 1272/2008:** Void
    - **Hazard pictograms:** Void
    - **Signal word:** Void
    - **Hazard statements:** Void

3 Composition/information on ingredients

• **Chemical characterization:**
  - **Description:** Cleansing agent

• **Dangerous components:** Void
  - **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

• **Description of first aid measures**
  - **After inhalation:** Supply fresh air.
  - **After skin contact:** Rinse skin with water/shower.
  - **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - **After swallowing:** If symptoms persist consult doctor.

• **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

(Contd. on page 2)
5 Firefighting measures

- **Extinguishing media**
  - *Suitable extinguishing agents:* The product is not flammable. Extinguishing agent to suit environment.
  - *Special hazards arising from the substance or mixture:* No further relevant information available.

- **Advice for firefighters**
  - *Protective equipment:* No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - No special measurements required when handled properly.

- **Environmental precautions:** No special measures required.

- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Wash off residuals with water.

7 Handling and storage

- **Handling:**
  - *Precautions for safe handling:* No special precautions are necessary if used correctly.
  - *Information about fire - and explosion protection:* No special measures required.

- **Conditions for safe storage, including any incompatibilities**
  - *Requirements to be met by storerooms and receptacles:* No special requirements.
  - *Information about storage in one common storage facility:* Not required.
  - *Further information about storage conditions:* Keep container tightly sealed.
  - *Specific end use(s)* No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Control parameters**
  - *Ingredients with limit values that require monitoring at the workplace:* The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - *Additional information:* The lists valid during the making were used as basis.

- **Exposure controls**
  - *Personal protective equipment:* 
    - *General protective and hygienic measures:* Avoid contact with the eyes and skin. Take off contaminated clothing and wash it before reuse. Wash hands before breaks and at the end of work.
    - *Respiratory protection:* Not required.
    - *Protection of hands:* Protective gloves recommended for frequent or long-term skin contact.
  - *Material of gloves*: Nitrile rubber, NBR
  - *Eye protection:* Safety glasses

(Contd. on page 3)
9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**
  - **Appearance:**
    - Form: Fluid
    - Colour: Colourless
  - **Odour:** Odourless
  - **Odour threshold:** Not determined.
  - **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** 100 °C

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**
  - **Decomposition temperature:** Not determined.
  - **Self-igniting:** Product is not selfigniting.
  - **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Vapour pressure at 20 °C:** 23 hPa

- **Density:** Not determined.
  - **Relative density** Not determined.
  - **Vapour density** Not determined.
  - **Evaporation rate** Not determined.

- **Solubility in / Miscibility with water:** Fully miscible.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - **Dynamic:** Not determined.
  - **Kinematic:** Not determined.

- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.

- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Possibility of hazardous reactions** No dangerous reactions known.

- **Conditions to avoid** No further relevant information available.

- **Incompatible materials:** No further relevant information available.
11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity**
    - **Primary irritant effect:** Based on available data, the classification criteria are not met.
    - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
    - **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
    - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
    - **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
      - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
      - **Carcinogenicity** Based on available data, the classification criteria are not met.
      - **Reproductive toxicity** Based on available data, the classification criteria are not met.
    - **STOT-single exposure** Based on available data, the classification criteria are not met.
    - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
    - **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:** Generally not hazardous for water
  - **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation**
    Disposal must comply with the relevant national regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

- **Uncleaned packaging:**
  - **Recommendation:**
    Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Packagings that may not be cleansed are to be disposed of in the same manner as the product.
  - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

<table>
<thead>
<tr>
<th><strong>UN-Number</strong></th>
<th><strong>ADR, ADN, IMDG, IATA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>void</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>UN proper shipping name</strong></th>
<th><strong>ADR, ADN, IMDG, IATA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>void</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Transport hazard class(es)</strong></th>
<th><strong>ADR, ADN, IMDG, IATA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>void</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Class</strong></th>
<th><strong>void</strong></th>
</tr>
</thead>
</table>

(Contd. on page 5)
**Trade name:** UV-VIS Reinigungslosung 1

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Directive 2012/18/EU**
  - **Named dangerous substances - ANNEX I** None of the ingredients is listed.
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)

* Data compared to the previous version altered.
Safety data sheet
according to Regulation (EC) No 1907/2006 (REACH)

1 Identification of the substance/mixture and of the company/undertaking

• Product identifier
  • Trade name: 2-Propanol
  • Article number: 481079 (VIS C/Set)
  • Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.
  • Application of the substance / the preparation: Cleaning material / Detergent

• Manufacturer/Supplier:
  Wissenschaftlich-Technische Werkstätten GmbH
  Dr.-Karl-Slevogt-Straße 1
  82362 Weilheim
  Deutschland
  Tel. +49 881 183-0

• Further information obtainable from: E-mail: info@wtw.de
• Emergency telephone number: Chemtrec: (USA & Canada) 800-424-9300   (International) 001 703-527-3887

2 Hazards identification

• Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

GHS02 flame

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

GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

• Label elements:

Labelling according to Regulation (EC) No 1272/2008:
The substance is classified and labelled according to the CLP regulation.

• Hazard pictograms: GHS02, GHS07
• Signal word: 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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear eye protection / face protection.
P233 Keep container tightly closed.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)
3 Composition/information on ingredients

- Chemical characterization:
- CAS No. Description
  67-63-0 Propan-2-ol
- Identification number(s):
  - EC number: 200-661-7
  - Index number: 603-117-00-0

4 First aid measures

- Description of first aid measures
  - After inhalation:
    Supply fresh air.
    Seek medical treatment in case of complaints.
  - After skin contact:
    Wash with plenty of water.
    Take off contaminated clothing.
  - After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
  - After swallowing:
    Rinse out mouth and then drink plenty of water.
    Do not induce vomiting (risk of perforation)
    Call a doctor immediately.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Firefighting measures

- Extinguishing media
  - Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - Special hazards arising from the substance or mixture
    Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.
    May form explosive mixtures with air at ambient temperatures.
- Advice for firefighters
  - Protective equipment: Wear self-contained respiratory protective device.
  - Additional information
    Collect contaminated fire fighting water separately. It must not enter the sewage system.
    Cool endangered receptacles with water spray.
    Suppress gases/fumes/haze with water spray.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Do not inhale vapors.
  Wear personal protective equipment (see section 8).
  Ensure adequate ventilation
  Keep away from ignition sources.
- Environmental precautions:
  Do not empty into drain. Risk of explosion!
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Trade name: 2-Propanol

Dispose of the material collected according to regulations. Wash off residuals with water.

7 Handling and storage

• Handling:
  • Precautions for safe handling
    Ensure good ventilation/exhaustion at the workplace.
    Prevent formation of aerosols.
    Wear personal protective equipment (see section 8)
  • Information about fire - and explosion protection:
    Keep away from sources of ignition and hot surfaces.
    Protect against electrostatic charges.

• Conditions for safe storage, including any incompatibilities
  • Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
  • Information about storage in one common storage facility: Not required.
  • Further information about storage conditions:
    Keep container tightly sealed.
    Store receptacle in a well ventilated area.

• Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

• Control parameters
  • Ingredients with limit values that require monitoring at the workplace: Not required.
  • Additional information: The lists valid during the making were used as basis.

• Exposure controls
  • Personal protective equipment:
    • General protective and hygienic measures:
      Do not inhale gases / fumes / aerosols.
      Immediately remove all soiled and contaminated clothing
      Avoid contact with the eyes.
      Wash hands before breaks and at the end of work.
    • Respiratory protection:
      Use suitable respiratory protective device only when aerosol or mist is formed.
      Short term filter device:
      Filter: A
    • Protection of hands: Protective gloves recommended for frequent or long-term skin contact.
    • Material of gloves
      Nitrile rubber, NBR
      Recommended thickness of the material: ≥ 0,4 mm
    • Penetration time of glove material
      Value for the permeation: Level ≤ 6
      The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
    • Eye protection: Tightly sealed goggles

(Contd. on page 4)
9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - **Form:** Fluid
      - **Colour:** Clear
      - **Odour:** Alcohol-like
  - **pH-value (- g/l):** neutral
  - **Change in condition**
    - **Melting point/Melting range:** -89.5 °C
    - **Boiling point/Boiling range:** 82 °C
  - **Flash point:** 13 °C
  - **Flammability (solid, gaseous):** Not applicable.
  - **Ignition temperature:** 425 °C
  - **Decomposition temperature:** Not determined.
  - **Self-igniting:** Product is not self-igniting.
  - **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
  - **Explosion limits:**
    - **Lower:** 2 Vol %
    - **Upper:** 12 Vol %
  - **Vapour pressure at 20 °C:** 43 hPa
  - **Density at 20 °C:** 0.785 g/cm³
  - **Vapour density**
    - Not determined.
  - **Evaporation rate**
    - Not determined.
  - **Solubility in / Miscibility with water at 20 °C:**
    - **Lower:** 1 g/l
  - **Partition coefficient (n-octanol/water):** Not determined.
  - **Viscosity:**
    - **Dynamic at 20 °C:** 2.43 mPas
    - **Kinematic:** Not determined.
  - **Other information**
    - No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
  - Explosive reaction with oxidising agents such as calcium chlorate and or peroxides.
  - Formation of hydrogen possible with metals and alloys (risk of explosion).
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** In case of fire, see section 5.
11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

<table>
<thead>
<tr>
<th>LD/LC50 values relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:** 
  - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** 
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** 
  - May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**

<table>
<thead>
<tr>
<th>Aquatic toxicity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50</td>
</tr>
<tr>
<td>IC50</td>
</tr>
<tr>
<td>LC50</td>
</tr>
</tbody>
</table>

- **Persistence and degradability** Easily biodegradable
- **Behaviour in environmental systems:** 
  - **Bioaccumulative potential** Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:** Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
  - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.
- **Uncleaned packaging:**
- **Recommendation:** Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

• **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

<table>
<thead>
<tr>
<th>• UN-Number</th>
<th>UN1219</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ADR, IMDG, IATA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>• UN proper shipping name</th>
<th>1219 ISOPROPNOL (ISOPROPYL ALCOHOL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ADR, IMDG, IATA</td>
<td>ISOPROPNOL (ISOPROPYL ALCOHOL)</td>
</tr>
</tbody>
</table>

**Transport hazard class(es)**

<table>
<thead>
<tr>
<th>• ADR, IMDG, IATA</th>
<th>3 Flammable liquids.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Class</td>
<td>3</td>
</tr>
<tr>
<td>• Label</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>• Packing group</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ADR, IMDG, IATA</td>
<td></td>
</tr>
</tbody>
</table>

**Environmental hazards:**

Not applicable.

<table>
<thead>
<tr>
<th>• Danger code (Kemler):</th>
<th>33</th>
</tr>
</thead>
<tbody>
<tr>
<td>• EMS Number:</td>
<td>F-E-S-D</td>
</tr>
</tbody>
</table>

**Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

**Transport/Additional information:**

<table>
<thead>
<tr>
<th>• ADR</th>
<th>1L</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Limited quantities (LQ)</td>
<td></td>
</tr>
<tr>
<td>• Transport category</td>
<td>2</td>
</tr>
<tr>
<td>• Tunnel restriction code</td>
<td>D/E</td>
</tr>
</tbody>
</table>

**UN "Model Regulation":**

UN 1219 ISOPROPNOL (ISOPROPYL ALCOHOL), 3, II

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **Directive 2012/18/EU**

<table>
<thead>
<tr>
<th>Named dangerous substances - ANNEX I</th>
<th>Substance is not listed.</th>
</tr>
</thead>
</table>

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

- **Abbreviations and acronyms:**

  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

  IMDG: International Maritime Code for Dangerous Goods

  IATA: International Air Transport Association

  GHS: Globally Harmonised System of Classification and Labelling of Chemicals

  EINECS: European Inventory of Existing Commercial Chemical Substances

  CAS: Chemical Abstracts Service (division of the American Chemical Society)
Trade name: 2-Propanol

LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

**Data compared to the previous version altered.**