

 <b>PROTELIM</b>		Safety Data Sheet - SDS (Conf. ABNT NBR 14725) <b><u>IPA</u></b>	
Version: <b>03</b>	Revision Date: <b>06/02/2024</b>	Developed on: <b>23/08/2019</b>	<b>Page 1 of 7</b>

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name:</b>	IPA
<b>Application:</b>	Hologram developer.
<b>Company:</b>	<b>Protelim Indústria Química de Produtos de Higiene e Limpeza Ltda</b> Avenida Henry Ford, n° 962, Mooca, São Paulo – SP, ZIP CODE: 03109-000 Phone/ Fax +55 (11) 2914-4464 e-mail: laboratório@protelim.com.br
<b>Emergency telephone number:</b>	0800-771-3733 or the nearest Health Service.

## 2. HAZARDS IDENTIFICATION

<b>Product hazard classification:</b>	Flammable liquids - Category 2 Serious eye damage/eye irritation - Category 2A Reproductive toxicity and lactation - Category 2 Germ cell mutagenicity - Category 1B Specific target organ toxicity - Single exposure - Category 3 Specific target organ toxicity - Repeated exposure - Category 2
<b>Other hazards not resulting in classification:</b>	The product poses no other hazards.
<b>Classification system used:</b>	<b>ABNT-NBR 14725: 2023 Standard</b> <b>Globally Harmonized System for the Classification and Labelling of Chemicals, UN.</b>
<b>Hazard Pictograms:</b>	
<b>Signal word:</b>	Warning.
<b>Hazard statements:</b>	H315 Causes skin irritation. H319 Causes serious eye irritation. H340 May cause genetic defects. H361 Suspected of damaging fertility or the unborn child. H335 May cause respiratory irritation. H373 May cause damage to the central nervous system and peripheral nervous system through repeated or prolonged exposure. H304 May be fatal if swallowed and enters airways. H401 Toxic to aquatic life.
<b>Precautionary statements:</b>	<b>General:</b> P102 Keep out of reach of children. <b>Prevention:</b> P201 Obtain specific instructions before use. P202 Do not handle the product before reading and understanding all safety precautions. P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking.

 <b>PROTELIM</b>	Safety Data Sheet - SDS (Conf. ABNT NBR 14725) <b>IPA</b>		
Version: <b>03</b>	Revision Date: <b>06/02/2024</b>	Developed on: <b>23/08/2019</b>	<b>Page 2 of 7</b>

P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment during transfer.  
P241 Use explosion-proof electrical/ventilating/lighting equipment.  
P242 Use only non-sparking tools.  
P243 Avoid accumulation of static charge.  
P260 Do not inhale dusts/fumes/gases/mist/vapors/aerosols.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink, or smoke while using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Emergency Response:**

P312 If you feel unwell, contact a POISON CENTER or a physician.  
P331 DO NOT induce vomiting.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or a physician.  
P304 + P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.  
P308 + P311 IF exposed or concerned: Call a POISON CENTER or a physician.  
P308 + P313 IF exposed or concerned: Get medical advice/attention.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.  
P332 + P313 If skin irritation occurs: Get medical advice/attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage:**

P405 Store locked up. P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

**Disposal:**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical nature:** Chemical product prepared based on Isopropanol, adjuvants, preservative, Vehicle.


**Substances contributing to the hazard:**

Chemical Name	Nº CAS	Conc.% (weight)	Note
Isopropanol	67-63-0	15-35%	
Other ingredients in this mixture, at the concentration used, do not contribute to the hazard. It does not contain impurities with significant toxicity.			

### 4. FIRST AID MEASURES

**If inhaled:** Remove the victim to a ventilated area and keep them at rest in a position that

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 <b>PROTELIM</b>		Safety Data Sheet - SDS (Conf. ABNT NBR 14725) <b><u>IPA</u></b>	
Version: <b>03</b>	Revision Date: <b>06/02/2024</b>	Developed on: <b>23/08/2019</b>	<b>Page 3 of 7</b>


<b><i>If case of skin contact:</i></b>	does not hinder breathing. If feeling unwell, contact a POISON CONTROL CENTER or a doctor. Take this SDS with you.
<b><i>If case eye contact:</i></b>	Wash the exposed skin with a sufficient amount of water to remove the material. In case of skin irritation: Consult a doctor. Take this SDS with you.
<b><i>If swallowed:</i></b>	Flush eyes thoroughly with water for at least 15 minutes. If wearing contact lenses, remove them if easy. Consult a doctor. Take this SDS with you.
<b><i>Most important symptoms and effects, both acute and delayed:</i></b>	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water thoroughly. If feeling unwell, contact a POISON CONTROL CENTER or a doctor. Take this SDS with you.
<b><i>Notes to physician:</i></b>	Causes skin irritation with drying and redness, and eye irritation with tearing, pain, and redness. May cause respiratory tract irritation and narcotic effects with shortness of breath, cough, dizziness, drowsiness, weakness, loss of consciousness, and headache. May cause damage to the cardiovascular system with tachycardia and ventricular arrhythmia. May cause damage to the central nervous system with loss of consciousness and seizure. May cause nausea and vomiting if ingested. May cause damage to the central nervous system and peripheral nervous system through repeated or prolonged exposure. Aspiration of the product may cause pulmonary edema and chemical pneumonitis.
	Avoid contact with the product when assisting the victim. If necessary, symptomatic treatment should include primarily supportive measures such as correction of electrolyte and metabolic disturbances, as well as respiratory assistance. In case of skin contact, do not rub the affected area.

## 5. FIREFIGHTING MEASURES

<b><i>Suitable extinguishing media:</i></b>	Compatible with alcohol-resistant foam, water mist, chemical powder, and carbon dioxide (CO <sub>2</sub> ).
<b><i>Specific hazardous during firefighting:</i></b>	Water directly onto liquid flames.
<b><i>Specific extinguishing methods:</i></b>	Combustion of the chemical product or its packaging may produce irritating and toxic gases such as carbon monoxide and dioxide. Very dangerous when exposed to excessive heat or other sources of ignition. May accumulate static charge by flow or agitation. Vapours from heated liquid can ignite by static discharge. Vapours are heavier than air and tend to accumulate in low confined areas, such as sewers, basements, etc. They can travel long distances causing flame flashback or new fire points both in open and confined spaces. Containers may explode if heated.
<b><i>Special protective equipment for firefighters:</i></b>	Respiratory protective equipment of the self-contained breathing apparatus (SCBA) type with positive pressure and full protective clothing. Containers and tanks involved in the fire should be cooled with water mist.

## 6. ACCIDENTAL RELEASE MEASURES

<b><i>Personal precautions,</i></b>	<b>For non-emergency personnel:</b> Isolate the leak from ignition sources. Prevent
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 <b>PROTELIM</b>		Safety Data Sheet - SDS (Conf. ABNT NBR 14725) <b>IPA</b>	
Version: <b>03</b>	Revision Date: <b>06/02/2024</b>	Developed on: <b>23/08/2019</b>	<b>Page 4 of 7</b>

***protective equipment and emergency procedures:***

sparks or flames. Do not smoke. Do not touch damaged containers or spilled material without proper protective clothing. Avoid inhalation, eye, and skin contact. Use personal protective equipment as described in Section 8.  
**For emergency responders:** Use full personal protective equipment with side shield goggles, PVC gloves, safety footwear, and impermeable clothing. In case of large leaks where exposure is significant, use a protective mask with vapour or mist filter.

***Environmental precautions:***

Prevent the product from reaching water bodies and sewage systems.

***Methods and materials for containment and cleaning up:***

Use water mist or vapor-suppressing foam to reduce vapor dispersion. Use natural or spill containment barriers. Collect spilled product and place it in proper containers. Adsorb remaining product with dry sand, soil, vermiculite, or any other inert material. Place the adsorbed material in appropriate containers and remove them to a safe location. For final disposal, proceed according to Section 13 of this SDS.

***Recovery:***

The spilled product should no longer be used. For disposal, check federal, state, and municipal regulations and restrictions.

## 7. HANDLING AND STORAGE

***Appropriate technical measures for safe handling***

***Precautions for safe handling:***

Handle in a ventilated area using the PPE described in section 8.

***Hygiene measures:***

Contaminated clothing should be changed and washed before reuse. Remove contaminated clothing and protective equipment before entering food areas. Wash hands and face thoroughly after handling and before eating, drinking, smoking, or using the restroom.

***Safe storage conditions, including any incompatibilities***

***Fire and explosion prevention:***

Keep away from heat, sparks, open flames, and hot surfaces. Do not smoke. Keep the container tightly closed. Use only non-sparking tools. Avoid the accumulation of static charges. Use explosion-proof electrical, ventilation, and lighting equipment.

***Storage:***

Keep containers tightly closed in a cool place, avoiding excessive stacking.

***Proper storage conditions:***

Store the product in a cool, dry, and well-ventilated area, away from heat and ignition sources. Keep containers tightly closed and properly labeled. The storage area should have an impermeable floor, free of combustible materials, and with a containment dike to contain leaks.


## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

***Control parameters:***

Not established for the mixture.

***Engineering control***

None under normal conditions of use. Handle in a ventilated area with water availability nearby. In large quantities or where there is a possibility of vapor

 <b>PROTELIM</b>		Safety Data Sheet - SDS (Conf. ABNT NBR 14725) <b>IPA</b>	
Version: <b>03</b>	Revision Date: <b>06/02/2024</b>	Developed on: <b>23/08/2019</b>	<b>Page 5 of 7</b>

<b>measures:</b>	emission, provide exhaust system.
<b>Eye/face protection:</b>	Wide-vision chemical goggles.
<b>Skin protection:</b>	Impermeable gloves, safety footwear, and regular work clothing.
<b>Respiratory protection:</b>	None in well-ventilated environments.
<b>Thermal hazards:</b>	No thermal hazards presented.

## 9. PHYSICAL AND CHEMICAL PROPERTIES


<b>pH:</b> 7,50 – 8,50	<b>Distillation range:</b> no data available.
<b>Physical state:</b> translucent liquid.	<b>Flash point:</b> no data available.
<b>Odour:</b> characteristic.	<b>Vapor pressure:</b> no data available.
<b>Colour:</b> colourless to slightly cloudy.	<b>Evaporation rate:</b> no data available.
<b>Density:</b> 0.94 +/- 0.01 g/cm <sup>3</sup>	<b>Vapor density:</b> no data available.
<b>Solubility:</b> Partially soluble.	<b>Decomposition temperature:</b> no data available.
<b>Viscosity:</b> no data available.	<b>Explosivity limits:</b>
<b>Melting point:</b> no data available.	<b>LEL (lower explosive limit):</b> no data available.
<b>Boiling point:</b> no data available.	<b>UEL (Upper explosive limit):</b> no data available.

## 10. STABILITY AND REACTIVITY

<b>Stability and reactivity:</b>	Product is stable under normal handling and storage conditions.
<b>Hazardous reactions:</b>	None, except when mixed with incompatible materials.
<b>Conditions to avoid:</b>	Areas with high temperatures. Ignition sources and contact with incompatible materials.
<b>Incompatible materials:</b>	Strong oxidizing agents.
<b>Hazardous decomposition products:</b>	None. If exposed to fire, after water runoff, it may produce toxic and irritating gases.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Toxicity:</b>	Acute toxicity estimate of the mixture (AET): AET (oral): > 2000 mg/kg AET (dermal): > 2000 mg/kg AET (inhalation): > 5000 ppm Not classified as acutely toxic via oral, dermal, and inhalation routes. May cause nausea and vomiting if ingested.
<b>Skin Corrosion/Irritation:</b>	Causes skin irritation with dryness and redness upon direct contact.
<b>Serious Eye Damage/Eye Irritation:</b>	Direct contact with the product causes eye irritation with redness and tearing.
<b>Respiratory or Skin Sensitization:</b>	May cause dermatitis with dryness upon repeated or prolonged exposure. Not expected to cause respiratory sensitization.
<b>Mutagenicity in Germ Cells:</b>	May cause genetic defects if ingested. Information regarding Ethanol:

 <b>PROTELIM</b>		Safety Data Sheet - SDS (Conf. ABNT NBR 14725) <b><u>IPA</u></b>	
Version: <b>03</b>	Revision Date: <b>06/02/2024</b>	Developed on: <b>23/08/2019</b>	<b>Page 6 of 7</b>

<b>Carcinogenicity:</b>	Positive results for in vivo mutagenicity assays involving germ and somatic cells of mammals. Not expected to be carcinogenic.
<b>Reproductive Toxicity:</b>	Information regarding Ethanol: May impair fertility or fetus if ingested. Information regarding Ethanol: May cause spontaneous abortions, as well as congenital defects and other developmental issues.
<b>Specific Target Organ Toxicity – Single Exposure:</b>	Information regarding Ethanol: May cause central nervous system depression with dizziness, drowsiness, vertigo, headaches, lack of motor coordination, and loss of consciousness. May cause irritation to the respiratory and gastrointestinal tract with coughing, sore throat, nausea, burning sensation, abdominal pain, and diarrhea.
<b>Specific Target Organ Toxicity – Repeated Exposure:</b>	Information regarding Ethanol: Causes liver damage with fat accumulation in the liver and cirrhosis in case of chronic ingestion exposure. May cause damage to the central nervous system with tremors, irritability, loss of concentration, and mental confusion. May cause skin dryness upon repeated and prolonged contact.
<b>Aspiration Hazard:</b>	May be harmful if swallowed and enters the respiratory tract.
<b>Ingestion:</b>	Never induce vomiting. Depending on the quantity, it can cause severe irritation, abdominal cramps, and diarrhea. In such cases, symptomatic treatment is usually sufficient, and gastric emptying is not necessary.
<b>Local Effects:</b>	Nonne notable.


## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	Toxic to aquatic life.
<b>Persistence/ Degradability:</b>	Data not available.
<b>Bioaccumulative Potential:</b>	Data not available.
<b>Soil Mobility:</b>	No determined.
<b>Other Adverse Effects:</b>	Data not available.

## 13. CONSIDERAÇÕES SOBRE DESTINAÇÃO FINAL

<b>Product</b>	Avoid occupational exposure or environmental contamination. Dispose of the product as waste in accordance with local, state, and federal regulations. Contact appropriate companies before disposal.
<b>Waste for residues:</b>	Keep the remaining product in its original and properly closed containers. Incinerate in an appropriate incinerator. Any disposal method must comply with local legislation and regulations. Do not dispose of in sewage, soil, or any body of water.
<b>Contaminated packaging:</b>	Empty containers may contain residues of the product, which should be considered before disposal. Keep the container with product/residues in a suitable location and properly identified. Do not reuse containers.



 <b>PROTELIM</b>		Safety Data Sheet - SDS (Conf. ABNT NBR 14725) <b><u>IPA</u></b>	
Version: <b>03</b>	Revision Date: <b>06/02/2024</b>	Developed on: <b>23/08/2019</b>	<b>Page 7 of 7</b>

#### 14. TRANSPORT INFORMATION

<b>Terrestrial (railways, highways):</b>	Resolution No. 5232/2016 of the National Land Transportation Agency (ANTT).
<b>Ship (sea, rivers, lakes):</b>	International Maritime Dangerous Goods Code (IMDG Code). Norm 5 of the Directorate of Ports and Coasts of the Ministry of the Navy (DPC). National Waterway Transportation Agency (ANTAQ).
<b>Air:</b>	International Civil Aviation Organization Technical Instructions (ICAO-TI). International Air Transport Association Dangerous Goods Regulations (IATA-DGR). National Civil Aviation Agency (ANAC).
<b>Classification:</b>	UN: 1993 Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Not Otherwise Specified). Primary risk class: 3 Subsidiary risk class: NA Risk number: 30 Packaging group: III
<b>Hazardous Components:</b>	Isopropyl Alcohol

#### 15. REGULATORY INFORMATIONS

##### ***Specific Regulations for the chemical product:***

Federal Decree No. 2,657, dated July 3, 1998.

ABNT-NBR Standard 14725: 2023.

SANITIZER PRODUCT NOTIFIED TO ANVISA/MS: 25351.253610/2019-73

#### 16. OTHER INFORMATION

This SDS was prepared based on current knowledge about the appropriate handling of the product and under normal conditions of use, according to the specified application on the packaging. Any other use of the product that involves its combination with other materials, different from the indicated forms of use, is the responsibility of the user. It is advised that the handling of any chemical substance requires prior knowledge of its hazards by the user. In the workplace, it is the responsibility of the user company to provide training to its employees and contractors regarding the potential risks associated with exposure to the chemical product.

Sanitizing product notified to ANVISA

Operating Authorization MS No. 3.04001-4

Technical Responsible: Chemist Alexandre A. Canfora

CRQ 04.438.605 – IV Region