

# IMPASOL<sup>®</sup> HARD

## NON-FLAMMABLE

## EXTREME COLD DEGREASER AND THINNER

EXTRA STRONG LIQUID „ESPECIALLY FOR THE BIGGEST POLLUTION, PAINTS, OILS, LUBRICANTS, SILICONES, RESINS AND ADHESIVES“

IT REPLACES PERCHLORINE, BENZINES, ACETONES AND AROMATICS

*Fast degreasing and removal liquid for industry and engineering*

### DESCRIPTION

**IMPASOL<sup>®</sup> HARD** is specifically developed like a **FAST NON-FLAMMABLE DEGREASING THINNER**, the strongest of the series **IMPASOL<sup>®</sup>**. It removes and degreases mineral, synthetic, cutting, silicone, plant and animal lubricants and oils, silicone, preservative oils and waxes, paraffins, adhesives, inks, paints, putty, lanolin, resin and hard removable dirt (mazut, tar, melting calf, palm and rapeseed oil). It removes even burned and carbonized oils and lubricants.

Its physicochemical characteristics are directly comparable to chlorinated solvents. It replaces flammable, toxic and carcinogenic diluents and degreasers such as acetone, benzene, diluents, trichlorine and perchloride. Its use avoids poisonous and flammable diluents. We guarantee that it does not contain methylene chloride, perchlorethylene, trichlorethylene, HCFC 141 B and glycol.

**IMPASOL<sup>®</sup> HARD** is non-residue degreaser with high degreasing power, with optimum evaporation and significant improvement in adhesion to surface, unique surface tension.

**IMPASOL<sup>®</sup> HARD** IS BIODEGRADABLE. It significantly improves safety and working conditions.

### BENEFITS

- ✚ **NON-FLAMMABLE**
- ✚ **Extreme removal power**
- ✚ **Ideal evaporation rate**
- ✚ **Unique surface tension**
- ✚ **Anticorrosive**
- ✚ **Unique wettability 23,2 dyn**
- ✚ **Without aggressive odor**
- ✚ **Non-residue degreaser**
- ✚ **Guaranteed without poisonous, carcinogenic and toxic substances**
- ✚ **Compatible with most plastics and elastomers**

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**Combustibility.** IMPASOL® HARD HAS NOT flash-point (HAS IMMEASURABLE) in closed container according to ISO 2719, product IS NOT FLAMMABLE. HAS NOT FLAME SYMBOL. Therefore, it is ideal where there is a risk of ignition at low temperatures and where the fire would cause enormous damage.

**Odor.** IMPASOL® HARD is without aggressive odor. It has no pungent and irritating odor as chlorinated solvents. IMPASOL® HARD significantly improves ergonomic conditions in confined and unventilated spaces.

**Evaporation rate.** IMPASOL® HARD has evaporation rate practically identical to the rate of evaporation of perchlorethylene. At room temperature it evaporates less and the loss due to evaporation is minimal. IMPASOL® HARD is isotropic and its evaporation rate is stable.

**Dissolution force.** With KB index 117 IMPASOL® HARD excellent dissolves most oils and lubricants. Paradoxically, it is compatible with most plastics.

**Density.** IMPASOL® HARD has a low bulk density: 774 Kg/m<sup>3</sup>. This low density prevents „swim dirt“ on the surface (problem, with which can be encountered with chlorinated hydrocarbon solvents, with whose using the dissolved particles settle back on the components at removal).

**Hydrolysis.** IMPASOL® HARD contains no stabilizers, because it does not represent any self-hydrolyzing risk. This solvent with high purity index has the same properties as chlorine solvents, but which can cause serious oxidation problems due to their regenerated base or poor stability, especially before the treatment of surface or before gluing and painting.

**Compatibility.** IMPASOL® HARD has extra low surface tension (less than 23,2 dyn/cm). It has extremely good surface wettability and ability dilute. This property plus high degreasing ability makes this product very good economically usable.

**DEGREASING.** IMPASOL® HARD is excellent strong solvent to pure or emulsion oils, whether mineral, silicones or synthetic, which are used to lubricate or modify metals. It is ideal to remove greases and fats. It can be used as selective factor to eliminate adhesives or uncured sealants. It removes adhesive residues from tapes. It removes some incompletely dried paints.

**IMPASOL® HARD** extremely quickly eliminates oil or waxy protective products used for temporary protection. Well diluted silicone oil.

It is particularly suitable for surfaces prepared for gluing or dyeing. It can be used too for surface cleaning before electrochemical treatment. Great use has at washing and degreasing of electrical equipments and engines.

**DILUTION.** IMPASOL® HARD can be used as a diluent for certain organic compounds. IMPASOL® HARD is a thinner for adhesives including anaerobic adhesives and for certain uncured resins. It can be used as a thinner for mineral and synthetic oils including POLYFLUORO esters, fats, vaselines and liquid paraffins. It is suitable too as a diluent factor for certain elastomers and most uncured thermoplastics and heat-cured resins (melting adhesives).

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**CLEANING.** IMPASOL® HARD great dissolves resins and polymers. It replaces dangerous flammable acetones and benzines in many cleaning applications. Thanks to its strength is excellent for dilution, removal and cleaning liquid print colors and gels for screen printing.

IMPASOL® HARD is used to clean contaminated electrical and electrotechnical materials (e.g. during storage), when the surface does not respond to organic solvents. It can be used for cleaning of any surface contaminated with an organic or inorganic impurity.

IMPASOL® HARD is used for cleaning of all surfaces from organic or inorganic contamination before construction, storage, before surface treatment chemical or electrochemical, before gluing or dyeing, before chemical or electrochemical surface finish.

**COMPATIBILITY.** IMPASOL® HARD is compatible with all metals including coated metals or precious metals. It can be used too on thermoplastics materials and hard thermoplastics, which do not respond to organic solvents, even on compound materials (compounds).

IMPASOL® HARD is very effective in:

- **ENGINEERING**
  - excellent solvent for oils, lubricants (even ANTI-SEIZ and silicones), preservative oils and waxes
- **PLASTICS INDUSTRY**
  - Non-residue cleaning and degreasing molds from preservative oils and waxes
  - Removal of embossing colors „Berlin Blue“
- **ELECTRICAL INDUSTRY**
  - IMPASOL® HARD is product with high purity index. Because of this is very suitable for using in electrical industry
  - It can be use to all degreasers and cleaning operations on electrical equipments
  - Ideal for electric motors
  - It does not attack materials used in electrical industry, it does not damage insulating paint
- **GRAPHIC INDUSTRY**
  - effective elimination of inks, paints and dirt from the screen printing
  - perfect non-residue degreasing surfaces (trays of paints)
  - easy and fast cleaning of cylinders
- **REMOVAL OF ADHESIVES AND RESINS**
  - Very effectively dilutes organic substances
  - Very well dissolves adhesives including anaerobic, even UV
  - Very well dissolves non-crosslinked resins
  - Very well dilutions bitumen and asphalt
- **PREPARATION OF SURFACES PRIOR TO DYEING, GLUING AND BEFORE APPLYING LUBRICANTS**
  - Guarantees non-residue purifying of the surface before the next processing
  - Significantly increases surface adhesion
  - Can be used for preparation of surfaces from metals, plastics, composites and elastomers
  - Ideal for removing of organics and inorganics prints before the next surface treatment
  - Contains no stabilizer and does not cause surface oxidation
- **DEGREASING AND CLEANING OF BRAKES AND CLUTCHES**
  - Excellently dissolves brake fluids, lubricants, tar and fine dust from the lining

- The evaporation rate allows penetration of liquid into the plates and degreasing from the „depth“
- Completely cleanses all dirt, thus preventing whistling and reduces clutch and brake slippage

**IMPASOL® HARD** is used clean, cold. Individual parts can be cleaned manually, with a cloth, by soaking, but also by rinsing and by washing out the systems. The surface can be after cleaned with water under low and high pressure, which better removes residual lubricants, paints, varnishes and dirt, thereby greatly reducing the economic costs.

**IMPASOL® HARD** is applied with a cloth, brush, by dipping, by rinsing, in the tank, spraying, by dive, with or without mixing (circuits). Time of cleaning surfaces (removing old paints) depends on the nature of the deposit, respectively coating, which is needed to remove, on its thickness and phase of curing (polymerization).

**IMPASOL® HARD** is able for approximately 0,3 to 3 minutes to clean weak coatings, layers (5-500µm). In case of removal of multiple layers this time can be longer (5 minutes and more by layers of coating).

Usage **IMPASOL® HARD** does not require any subsequent investment into a costly washing line, security measures, special stores of combustibles and caustics, etc.. It is very easy to adapt to any removal and degreasing process (very suitable for washing systems out, diving baths).

## METHOD OF USE

Cloth   
  Plunge   
  Dipping   
  Tampon   
  Brush  
 Circulation   
 Immersion and mixing   
 Low pressure spraying

CHARACTERISTICS	NORM	VALUE	UNIT
Looks	Visually	Liquid	
Color	Interne CQ 016	Transparent	
Test - Copper plate corrosion 100 h in 40°C	ASTM D 130 NFM M 07015	1a	Record
Physical state	Visually	Liquid	
Water dilutability		minimum	
Index KB, the ability of the solvent	ASTM D 1133	<b>117</b>	[bonitace]
Refractive index of light, at 20°C	ASTM D 1218	1,40	
Density at 25°C	EN ISO 12 185	774	kg/m <sup>3</sup>
Flash point in closed container	ISO 2719	NO	°C
Self-ignition point	ASTM E 659	More then 240	°C
Freezing point	ASTM D 97	-55	°C
The residue after evaporaion	ASTM D 1209	<b>0</b>	%
Pressure (tension) vapor at 20°C	EN 13016-1	0,01	hPa
Surface tension at 20°C	ISO 6295	23,2	Dynes/cm
Viscosity at 40°C	EN 3104	0,77	mm <sup>2</sup> /s
Evaporation rate	NF T 30 301	15	minutes

**PACKAGING :** 30 a 200 liters

**Instructions for use:** **IMPASOL® HARD** is clean remover applicable to all types of materials. Clean the parts by rinsing or dipping. The removal time depends on the thickness and rate of curing (polymerisation), temperature of removal and on any ultrasound used.

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