





# ECOLOGICAL CLEANING SOLUTIONS • SWISS QUALITY



# CLEANING AND SURFACE PREPARATION

Quality, reliability and expertise applied to the surface preparation of sensitive materials and parts with complex geometries and very small dimensions

PARTS

Hands

Pallets

Balance

Barrel

Pinions

Bars

Plate

Wheels

#### COMPATIBILITY

- Steels:
- Inox, 301, 304, 316L, 420
- Maraging
- 20AP, H1, CK101, CK75
- Aluminium
- Copper alloys:
- Bronze, CuBe,
- Cuproaluminum, cupronickel
- Brass (leaded and unleaded)
- Nickel silver
- Gold: white, pink, yellow
- Platinum
- Titanium

#### DETERGENTS, SOLVENTS, FINISHING AND SPECIFIC APPLICATIONS

PRODUCT	pН	ТҮРЕ	FUNCTION	APPLICATION/POLLUTION
DECOCLEAN 540 <sup>1</sup>	13.9	Detergent	Spray or ultrasonic cleaning <sup>3</sup>	Neat oil
DECOSPRAY TM <sup>1</sup>	9.6			
RODACLEAN 2018 <sup>2</sup>	14		Ultrasonic cleaning	Polishing compounds, soluble oil, light pollutions
GALVEX 18.01	9.5			
GALVEX 20.01	8.9			
GALVEX 20.02	10			
GALVEX TM	9.8			
GALVEX 20.31	10			Lacquer
HELIT 2022	7.1	Finishing detergent		Hydrophilic finish
SUPER HELIT IC	7.1			Hydrophobic finish
GALVEX 18.08	9.5			
RODASTEL 30	0.5			Deoxidation, brightening ect
KORROSTOP 5000	12.3	Rinse additive	Soaking	Protection against corrosion
ALLSTRIP	N.A.	Solvent	Ultrasonic cleaning	Glue, varnish, lacquer

<sup>1</sup> Requires an oil separator

<sup>2</sup> Suitable for any type of steel <sup>3</sup> Can be used in vacuum system

ISO CERTIFICATION\*

ISO 14001 - Environment

ISO 45001 - Health and safety at work

\*Applicable to the production site at NGL Cleaning Technology SA

ISO 9001 - Quality

#### **SUPPORT**

- NGL Academy: training on precision cleaning, passivation, water treatment, and HSE regulation
- Application Centre: various cleaning systems and wide range of analytical tools for all types of tests
- Worldwide and local implementation

### POLLUTIONS

- Oil, grease
- Polishing compounds
- Abrasives: satin-finish.
- Fingerprints, dusts

- **CLEANING MULTI-MATERIAL MOVEMENTS** GALVEX TM
- Process : Common cleaning of parts made of different materials such as aluminum, brass or steel after polishing.



# CLEANING PRECIOUS-MATERIAL COMPONENTS AFTER POLISHING GALVEX 20.31 and SUPER HELIT IC

Process : Removal and cleaning of precious-material components after polishing on a brass support. GALVEX 20.31 removes and cleans parts, SUPER HELIT IC adds shine.



### **CLEANING CuBe PINS** GALVEX 20.01 and HELIT 2022

Process : Cleaning of CuBe parts and alternative CuNiSn alloys with GALVEX 20.01 and hydrophilic finishing with **HELIT 2022** 





Find all our watchmaking-specific products and application notes on our website.

# microbalsting

- Oxides
- Varnish, glue, lacquer
- Ruby

Oscillating mass

Screws

# **CLEANING SENSITIVE STEEL** COMPONENTS AFTER POLISHING RODACLEAN 2018 and GALVEX 18.08

Process : Stripping and cleaning of sensitive steel components after polishing on a stainless steel support. RODACLEAN 2018 removes and cleans parts, GALVEX 18.08 provides corrosion protection. Add KORROSTOP 5000 if required.



# **DEOXIDATION OF SENSITIVE** STEELS AFTER LASER CUTTING DECOCLEAN 540, GALVEX 18.01 and KORROSTOP 5000

Process : Deoxidizes and removes slag from sensitive steel parts after laser cutting. KORROSTOP 5000 offers corrosion protection during rinsing.



#### CLEANING STEEL PARTS AFTER Ni COATING **GALVEX 20.02**

Process : Cleaning of steel parts after electrolytic or chemical nickel coating







# WATCH INDUSTRY RANGE: DIALS



# CLEANING AND SURFACE PREPARATION

Quality, reliability and expertise applied to the surface preparation of watch dials prior to lacquering, electroplating or decorative PVD/CVD

PARTS

Dials

#### COMPATIBILITY

- Steel
- Aluminium
- Brass (leaded and unleaded)
- Nickel silver
- Mother-of-pearl
- Lacquered dials

#### POLLUTIONS

- Oil
- Solder
- Polishing compounds
- Abrasives: guilloché work, satin finish, microblasting, sunray brushing
- Fingerprints, dusts
- Varnish, lacquer

#### DETERGENTS, SOLVENTS, FINISHING AND SPECIFIC APPLICATIONS

PRODUCT	рН	ТҮРЕ	FUNCTION	APPLICATION/POLLUTION
DECOSPRAY TM	9.6	- Detergent	Spray or ultrasonic cleaning	Neat oil
DECOSPRAY HT 8	8.5			
GALVEX 18.01	9.5		Ultrasonic cleaning	Polishing compounds, soluble oil, light pollutions
GALVEX 20.01	8.9			
GALVEX 20.02	10			
GALVEX TM	9.8			
HELIT 2022	7.1	Finishing detergent		Hydrophilic finish
SUPER HELIT IC	7.1			Hydrophobic finish
NANOCLEAN 2018	9.5			Hydrophilic finish
OPTICAL 10L	5.5			Hydrophilic acid finish
RODASTEL 30	0.5			Deoxidation, brightening e ect
SCHUTZLACK 2005 SP L ROSE	N.A.	Masking varnish	Spraygun or paintbrush	- Water-soluble masking varnish
SCHUTZLACK NGL 2002 ROSE	N.A.		Aerosol spray	
RUBIFIN N°4	N.A.	Solvent	Degreasing in vacuum or ultrasonic machines	Neat oil
ALLSTRIP	N.A.		Ultrasonic or beaker cleaning	Varnish removal

1 Suitable for any type of steel

#### **SUPPORT**

- NGL Academy: training on precision cleaning, passivation, water treatment, and HSE regulation
- Application Centre: various cleaning systems and wide range of analytical tools for all types of tests
- Worldwide and local implementation

### ISO CERTIFICATION\*

- ISO 9001 Quality
- ISO 14001 Environment
- ISO 45001 Health and safety at work

\*Applicable to the production site at NGL Cleaning Technology SA

# **DE-OILING OF LEAD-FREE BRASS** DIALS AFTER MACHINING

#### DECOSPRAY TM (or HT 8) and GALVEX 18.01

• Process : Degrease dials with DECOSPRAY TM or HT8 depending on oil. Cleaning of grease residues with GALVEX 18.01 to give parts a shiny finish.



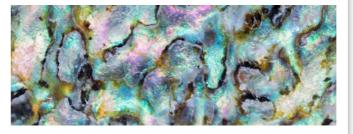
# VARNISH REMOVAL ALLSTRIP and HELIT 2022

Process : Removal of varnish from dials and cleaning of parts.



#### **CLEANING OF NACRE DIALS** GALVEX 20.02 and OPTICAL 10L

Process : Cleaning of mother-of-pearl dials after machining with GALVEX 20.02. OPTICAL 10L gives parts a shiny finish





Find all our watchmaking-specific products and application notes on our website.

## **CLEANING AND PROTECTING DIALS AFTER POLISHING** GALVEX 20.01 and SUPER HELIT IC

• Process : Cleaning after polishing of lead-free brass dials with GALVEX 20.01 and protection during storage with SUPER HELIT IC.



## **CLEANING DIALS AFTER RHODIUM** PLATING GALVEX TM and RODASTEL 30

Process : Cleaning parts after Rh galvanic coating with GALVEX TM. Removal of galvanic residues with RODASTEL 30.



#### **CLEANING DIALS AFTER PVD** COATING NANOCLEAN 2018

Process : Cleaning of dials after black PVD coating with NANOCLEAN 2018, compatible with PVD/CVD coatings.







# WATCH INDUSTRY RANGE: GLASSES



# CLEANING AND SURFACE PREPARATION

#### Quality, reliability and expertise applied to sensitive materials and to transparent watch parts

#### COMPATIBILITY

- Glass:
- Mineral - Acrylic glass (plexiglass, hesalite)
- Sapphire Substrates:
- Brass
- Stainless steel
- Steel

#### PARTS

- Glass Date magnifiers
- Lapping plate

## Abrasives:

Cutting oil

POLLUTIONS

- Cerium oxide
- Silicon dioxide
- Aluminium oxide Polishing compounds
- Fingerprints, dusts
- Blocking glue

#### CLEANING SAPPHIRE **BEFORE** ANTI-REFLECTIVE COATING **OPTICAL V and OPTICAL 30**

Process: Cleaning of sapphire lenses prior to anti-reflective coating with OPTICAL V, surface preparation for PVD/CVD coating with OPTICAL 30.



### DEGREASING ASSEMBLED BOXES GALVEX SU 737 and BIOPTIC 201

Process : GALVEX SU 737 is used to degrease mounted boxes without damaging the seal and BIOPTIC 201 is used for acid finishing to give parts a glossy appearance.





Find all our watchmaking-specific products and application notes on our website.

#### DETERGENTS, SOLVENTS, FINISHING AND SPECIFIC APPLICATIONS

PRODUCT	рН	ТҮРЕ	FUNCTION	APPLICATION/POLLUTION
ALLSTRIP	N.A.	Solvent	- Ultrasonic cleaning	Varnish, blocking glue
RODACLEAN 2018	14	Detergent		
OPTICAL 2021	14			Abrasives, varnish, blocking glue
OPTICAL V	14			Abrasives
GALVEX SU 737	7.2			Soluble oil, polishing compounds, tribofinition
NANOCLEAN 2018	9.5			Light pollutions
DECOCLEAN 540 <sup>1</sup>	13.9		Communication allocations?	Cutting oil, abrasives
BIOPTIC 2011	0.7	Finishing detergent	Spray or ultrasonic cleaning <sup>2</sup>	- Hydrophilic finish
OPTICAL 30	0.5		Ultrasonic cleaning	
GL 801 S	6.7			Hydrophilic superfinish
PRECIOPTIC 18.22	10.5			Antistatic finish
OPTICAL 10L	5.5			Hydrophilic acid finish

<sup>1</sup> Requires an oil separator

<sup>2</sup>Can be used in vacuum system

#### **SUPPORT**

- NGL Academy: training on precision cleaning, passivation, water treatment, and HSE regulation
- Application Centre: various cleaning systems and wide range of analytical tools for all types of tests
- Worldwide and local implementation

## ISO CERTIFICATION<sup>\*</sup>

- ISO 9001 Quality
- ISO 14001 Environment
- ISO 45001 Health and safety at work

\*Applicable to the production site at NGL Cleaning Technology SA

# **REMOVAL AND CLEANING OF** SAPPHIRE GLASS AFTER POLISHING OPTICAL 2021 or RODACLEAN 2018 and OPTICAL 101

Process : Removal of glass from support and cleaning of polishing residues with OPTICAL 2021. OPTICAL 10L gives a shiny finish.



### UNDUSTING OF MOUNTED BOXES NANOCLEAN 2018 and PRECIOPTIC 18.22

Process : NANOCLEAN 2018 removes dust from assembled boxes without impairing sealing. PRECIOPTIC 18.22 adds antistatic properties to the surface.







# WATCH CASES, WATCH BANDS



# CLEANING AND SURFACE PREPARATION

Quality, reliability and expertise applied to sensitive materials and external watch components

#### COMPATIBILITY

- Aluminium
- Stainless steel
- Ceramic
- Brass (unleaded)
- Gold: white, pink, yellow
- Polymers
- Titanium
- Rhodium, palladium

#### PARTS

- Watch band: links strand
- Spring bars
- Clasps
- Watch cases: crowns, bezels, case body, backs

- Oxides Fingerprints
  - Masking varnish

POLLUTIONS

Polishing compounds

Oil, grease

Abrasive

Glue, lacquer

#### DETERGENTS, SOLVENTS, FINISHING AND SPECIFIC APPLICATIONS

PRODUCT	рН	ТҮРЕ	FUNCTION	APPLICATION/POLLUTION
DECOCLEAN 540 <sup>1</sup>	13.9	- Detergent	Spray or ultrasonic cleaning <sup>3</sup>	Neat oil
RODACLEAN 2018 <sup>2</sup>	14		Ultrasonic cleaning	Polishing compounds, soluble oil, light pollutions
RODAWEG CO SUPER	14			
GALVEX 20.01	8.9			
GALVEX 20.02	10			
CERACLEAN SP 2022	0.5			Alkaline residues, minerals, oxides
HELIT 2022	7.1	Finishing detergent		Hydrophilic finish
SUPER HELIT IC	7.1			Hydrophobic finish
PRECIOPTIC 18.22	10.5			Antistatic finish
RODASTEL 30	0.5			Deoxidation, brightening ect
DECOMET	1.0	Citric acid passivationn	Soaking	Free iron oxide removal
SCHUTZLACK NGL BLEUE	N.A.	Masking varnish	Spraygun or paintbrush	Water-soluble masking varnish
SCHUTZLACK 2005 SP L ROSE	N.A.			
SCHUTZLACK NGL 2002 ROSE	N.A.		Aerosol spray	
RUBIFIN N°4	N.A.	Solvent	Degreasing in vacuum or ultrasonic machines	Neat oil

<sup>1</sup> Requires an oil separator

<sup>2</sup> Suitable for any type of steel, can be used in surface preparation prior to passivation

<sup>3</sup> Can be used in vacuum system

## **SUPPORT**

- NGL Academy: training on precision cleaning, passivation, water treatment, and HSE regulation
- Application Centre: various cleaning systems and wide range of analytical tools for all types of tests
- Worldwide and local implementation

# ISO CERTIFICATION\*

- ISO 9001 Quality
- ISO 14001 Environment
- ISO 45001 Health and safety at work

\*Applicable to the production site at NGL Cleaning Technology SA

# DE-OILING OF STAINLESS STEEL WATCH CASES AFTER MACHINING DECOCLEAN 540, RODACLEAN 2018 and HELIT 2022

Process : Degreasing of parts with DECOCLEAN 540 or DECOSPRAY TM depending on oil. Cleaning grease residues with RODACLEAN 2018 and finishing with RODASTEL 30 to give a glossy appearance.



## **CLEAN STAINLESS STEEL STRANDS BEFORE ASSEMBLY** GALVEX 20.02 and SUPER HELIT IC

• Process : Cleaning of stainless steel strands with GALVEX 20.02 and temporary protection of parts during storage with SUPER HELIT IC.



# CLEANING OF GEM-SET WATCH BANDS

GALVEX 20.02 and PRECIOPTIC 18.22

Process : Cleaning of bracelets with synthetic rubies or diamonds with GALVEX 20.02 and PRECIOPTIC 18.22 finish, which adds antistatic properties to the surface.





Find all our watchmaking-specific products and application notes on our website.

#### CLEANING WATCH CASES AFTER LASER ENGRAVING GALVEX 20.01 and RODASTEL 30

• Process : Removal of slag and deoxidation of engraving with GALVEX 20.01 and RODASTEL 30 finish.



# CLEANING ASSEMBLED STAINLESS **STEEL WATCH BANDS** RODAWEG CO SUPER, GALVEX 20.02 and **CERACLEAN SP 2022**

Process : Cleaning of complete stainless steel watch bands with RODAWEG CO super and GALVEX 20.02. Acid finish with CERACLEAN SP 2022 for shiny parts.



#### **TEMPORARY MACHINING** PROTECTION SCHUTZLACK ROSE or BLEUE

Process : Protective lacquer for watch cases during machining







# WATCH INDUSTRY: SERVICING



SOLVENT CLEANING AFTER-SALES

RUBIFIN N°10 and RUBIFIN N°3

# CLEANING AND SURFACE PREPARATION

Quality, reliability and expertise applied to the surface preparation of sensitive materials and parts with complex geometries and very small dimensions

#### COMPATIBILITY

- Steels:
- Inox, 301, 304, 316L, 420
- Maraging
- 20AP, H1, CK101, CK75
- Aluminium
- Copper alloys:
- Bronze, CuBe,
- Cuproaluminum, cupronickel
- Brass (leaded and unleaded)
- Nickel silver
- Gold: white, pink, yellow
- Titanium
- Platinum

# DETERGENTS, SOLVENTS, FINISHING AND SPECIFIC APPLICATIONS

PRODUCT	pН	ТҮРЕ	FUNCTION	APPLICATION/POLLUTION
DECOSPRAY TM	9.6	Detergent	Spray or ultrasonic cleaning	Neat oil
GALVEX 20.01	8.9		Ultrasonic cleaning	Polishing compounds, oil, light pollutions
GALVEX SU 737	7.2			
KORROSTOP 5000	12.3	Rinse additive	Soaking	Protection against corrosion
SCHUTZLACK NGL 2002 ROSE	N.A.	Masking varnish	Spraygun or paintbrush	Water-soluble masking varnish
ALLSTRIP	N.A.	Solvent	Ultrasonic cleaning	Wax, glue, varnish, lacquer
RUBIFIN N°4	N.A.		Ultrasonic degreasing	Neat oil
RUBIFIN N°10	N.A.		Degreasing in watchmaking machine	Wax, oxides, dusts
RUBIFIN N°3	N.A.			

<sup>1</sup> Requires an oil separator

#### **SUPPORT**

- NGL Academy: training on precision cleaning, passivation, water treatment, and HSE regulation
- Application Centre: various cleaning systems and wide range of analytical tools for all types of tests
- Worldwide and local implementation

 Hands Pallets

PARTS

- Balance
- Barrel
- Oscillating mass
- Pinions Bars
- Plate
- Wheels
- Ruby
- Screws

### POLLUTIONS

- Oil, grease
- Polishing compounds
- Abrasives: satin-finish,
- microblasting
- Oxides

ISO CERTIFICATION<sup>\*</sup>

ISO 14001 - Environment

ISO 45001 - Health and safety at work

\*Applicable to the production site at NGL Cleaning Technology SA

ISO 9001 - Quality

- Laser engraving
- Varnish, glue, lacquer
- Fingerprints, dusts

# • Process : Cleaning after parts rework with solvent and Greiner-type machine.

**SERVICE** 



# SPRAY CLEANING AFTER-SALES SERVICE **DECOSPRAY TM**

Process : Clean parts after reworking with DECOSPRAY TM.





Find all our watchmaking-specific products and application notes on our website.

# ULTRASONIC CLEANING AFTER-SALES SERVICE GALVEX SU 737

Process : Cleaning after parts rework with GALVEX SU 737 for protection during storage.



# CLEANING AND ANTI-CORROSION **PROTECTION OF MOVEMENTS** GALVEX 20.01 and KORROSTOP 5000

Process : Cleaning movements with GALVEX 20.01 and rinse with KORROSTOP 5000 to protect during storage.





# OUR SUBSIDIARIES AROUND THE WORLD

#### NGL FRANCE SAS

Parc Aktiland Bât B 1 rue de Lombardie FR-69800 SAINT-PRIEST france@ngl-group.com

#### NGL CLEANING GMBH

Schlavenhorst 15 DE-46395 BOCHOLT kontakt@ngl-group.com

#### NGL NORDIC A/S

Industriskellet 10 DK-2635 ISHØJ nordic@ngl-group.com

#### **NGL SHANGHAI**

Room 407, Building 3, No.3199 Jinhai Road Fengxian District CN-201406 SHANGHAI shanghai@ngl-group.com

#### NGL ASIA PACIFIC PTE LTD

28 Kallang Place #05-09 Kallang Basin Industrial Estate SG-339158 SINGAPOUR asiapacific@ngl-group.com

#### NGL AMERICA INC.

747 North Church Road, Suite G-9 ELMHURST, IL 60126, USA usa@ngl-group.com



NGL CLEANING TECHNOLOGY SA - ECOLOGICAL CLEANING SOLUTIONS Chemin de la Vuarpillière 7 – CH-1260 NYON – SWITZERLAND +41 22 365 46 66 – contact@ngl-group.com – www.ngl-group.com





