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## System cleaner

Product	GROTANOL FF 1 N	RENOCLEAN SMC/SMC +	RENOCLEAN FXM 4005	ACTICIDE OX / MBS / WB 200
Function	System cleaner with almost pan-European approval	System Cleaners	System Cleaner biocide and fungicide free	Biocide and fungicide for System Cleaners
Physical state	liquid	liquid	liquid	liquid
Emulsifying properties	emulsifying	emulsifying	emulsifying	-
Foaming tendency	none	none	none	-
Application	System Cleaner for coolant-supply systems, registered in most European countries!	System Cleaner for coolant-supply systems, SMC+ does not contain formaldehyde releasers	System cleaner for cooling lubricant supply systems, base system without biocide/ fungicide	In combination with RENOCLEAN FXM 4005 for targeted application
Comments	-	-	-	-
Notes	Contact time 6-24h	Contact time 8-24h	Contact time 8-24h	-
pH, if applicable	9 at 1 %	9,8/10,4 at 2 %	10,0 at 2 %	-
Concentration range in %	1-3	1-2	1-2	-

Fe - steel, iron, cast iron and stainless steel, <sup>1</sup> to check first.

## Skin protection before work

Product	RENOCLEAN HAND PROTECT MULTI
Function	Silicone-free, non-marking, breathable, all-purpose skin cream
Application	Before handling with changing working materials (water-soluble and water-insoluble pollutants and irritants)
Comments	Forms a thin, invisible and protective film on the skin
Notes	Active support for cleaning after work
Available quantities	50x100 ml tube 6x2.000 ml pouch bottle
Equipment	

## Solvents

Product	RENOCLEAN MTS 7001	RENOCLEAN MVS 8015	RENOCLEAN MVS 8016	RENOCLEAN MVS 9014
<b>Function</b>	Cleaner based on modified alcohols	Cleaner based on isoparaffin, aromatics free	Cleaner based on isoparaffin, aromatics free	VOC and aromatics-free cleaner with corrosion protection
<b>Physical state</b>	liquid	liquid	liquid	liquid
<b>Flash Point</b>	61°C	56,5°C	62°C	>90°C
<b>Boiling range</b>	168 - 173°C	179 - 197°C	184–206°C	217–255°C
<b>Density at 15 ° C</b>	880 +/- 10 kg/m <sup>3</sup>	761 kg/m <sup>3</sup>	763 kg/m <sup>3</sup>	814 kg/m <sup>3</sup>
<b>Application</b>	suitable for the removal of polar and non-polar impurities	Very narrow boiling range, fast drying	Narrow boiling range, fast drying	Universal application, good corrosion protection through a very thin film of oil
<b>Materials</b>				all materials <sup>1</sup> , plastic
<b>Comments</b>	distillable	distillable, recyclable	distillable, recyclable	VOC compliant
<b>Notes</b>	Especially for closed cleaning systems designed!			Suitable for solvent-based cleaning-lines

## SKIN CLEANING

<b>RENOCLEAN HAND PROTECT PRO</b>	<b>RENOCLEAN HAND WASH MILD</b>
Silicone-free, water-soluble skin protection cream	Mild, soap-free, unperfumed
Prior to contact with strong water-immiscible contaminants such as oils, greases, lubricants, metal debris, dust and soot	For cleaning heavily stressed skin
Forms a tack-free, thin and protective microfilm on the skin	Particularly suitable where necessary
Includes by the skin well tolerated specialty surfactants, who actively support the subsequent skin cleansing	Free of perfumes, dyes and fragrances
50x100 ml tube 6x2.000 ml pouch bottle	25x250 ml tube 6x2.000 ml pouch bottle

RENOCLEAN D

RENOCLEAN KLV	RENOCLEAN UWF / FUCHS MULTICLEAN	RENOCLEAN E	Product	RENOCLEAN VR 3222
VOC-free, free of aromatics	Free of aromatics, environmentally friendly, demulsifying	Emulsifying, extra stable at low temperatures	<b>Function</b>	Temporary
liquid	liquid	liquid	<b>Physical state</b>	liquid
90 °C	62 °C	63 °C	<b>Emulsifying properties</b>	
217–255 °C	180–330 °C	–	<b>Foaming tendency</b>	low
810 kg/m <sup>3</sup>	790 kg/m <sup>3</sup>	800 kg/m <sup>3</sup>	<b>Application</b>	Immersion
Universal application, slowly evaporating	Universal application in industry and commerce, applicable with high-pressure-equipment	For cleaning of engines, transmissions, chassis and other assemblies and components	<b>Materials</b>	all materials
			<b>Comments</b>	Nitrite free, contains boron-amine, suitable for vibratory finishing
			<b>Notes</b>	
			<b>Corrosion protection, chips / filter test 0/0 at x% at _</b>	temporarily, '3,5 % / 10° dH
			<b>pH, if applicable</b>	8,3 at 2 %
			<b>Concentration range in %</b>	1–3
			<b>Temperature range</b>	
			<b>Injection pressure in bar</b>	0,1–5
cs <sup>1</sup>				
distillable	Free from caustic and corrosive substances	Also available as an aerosol in a spray can		
Suitable for solvent-based cleaning-lines	Good anti-corrosion properties	Easy to use		

## G

RENOCLEAN HAND WASH INTENSIVE	
ed skin cleansing gel	Hand cleaner with abrasives for heavy soiling
d and sensitive skin	Ideal for cleaning heavily soiled hands in the areas of auto repair shops, and many mechanical engineering
requent hand washing is	Includes plastic flour as friction body, low perfumed
preserving agents	pH-neutral set and contains skin care substances
	25x250 ml tube 6x2.000 ml pouch bottle
DNA 2000K Dispenser (for pouch bottle)	

# on protection

ANTICORIT SKR 3001	RENOCLEAN VR 2729 K	ANTICORIT MKR 30	ANTICORIT MKR 7	ANTICORIT DFO 8101	ANTICORIT DFW 8101	ANTICORIT RPC 5000
mineral oil-free corrosion protection		Mineral oil-based corrosion protection emulsion	Water-miscible corrosion protection concentrate	Solvent-based, water-displacing corrosion protection, leaving a thin film		Anticorrosion concentrate, dilutable in many solvents
liquid	liquid	liquid	liquid	liquid	liquid	liquid
-		emulsifying		demulsifying		-
low	low	moderate	strong	low	low	low
injection, flood and spray application		Immersion, flood and spray application	Immersion and flood application	Immersion and spray application		
Fe, Mg, Al, Zn (Cu, Brass) <sup>1</sup>	Fe	Fe, Al, Cu, Brass	all materials <sup>1</sup>	all materials		
Nitrite free, works in the vapor phase corrosion-protective, suitable for vibratory finishing		Boron and mono-ethanolamine free	Free from secondary amines and barium	Dewatering-Fluids, Barium-free		Corrosion protection concentrate, Barium-free
water-miscible				oily	waxy	oily
temporarily, '1,5 % / 10° dH	temporarily, '2 % / 10° dH	well '2 % / 20° dH	well	very well		
9,8 at 2 %	11 at 2 %	8,8 at 2 %	9,2 at 10 %	-		
0,5-5	0,5-3	3-5	5-10	100	100	typical >3
60 °C (20-80)		50 °C (20-60)	50 °C (20-70)	room temperature		
0,1-5	0,1-5	-	-	-		

## SKIN CARE

### RENOCLEAN HAND CARE

Silicone-free skin care cream

After working perfectly suited as cream for hands, whose natural protective barrier is attacked while working

Contains nursing vegetable oils, beeswax and moisture-regulating substances

Obtains the skin when used regularly, healthy and strong

50x100 ml tube  
6x2.000 ml pouch bottle

**RENOCLEAN**

**Perfect Cleaning –  
Cleaner for metalworking**



**LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.**



# Neutral Cleaner

Product	RENOCLEAN VR 1948	RENOCLEAN MTO 3002	RENOCLEAN MTO 3001	RENOCLEAN VR 1021 CXV
<b>Function</b>	Neutral cleaner, salt free	Neutral cleaner, salt free	Neutral cleaner, salt free, spray and immer-sible	Neutral cleaner spray and immersible
<b>Physical state</b>	liquid	liquid	liquid	liquid
<b>Emulsifying properties</b>	demulsifying effect	demulsifying effect	demulsifying effect	demulsifying effect
<b>Foaming tendency</b>	lowest	lowest	lowest	lowest
<b>Application</b>	Spray and high pressure cleaning (300 bar)	Spray and high pressure cleaning	Spray, immersion and ultrasonic cleaning	Spray, pressure flooding and high pressure cleaning (200 bar, 300 short-term)
<b>Materials</b>	Fe, Al, Zn, (Cu, Brass) <sup>1</sup> , plastics <sup>1</sup>	Fe, Al, Ms, Cu, (Al, Mg) <sup>1</sup>	Fe, Al, Zn, (Cu, Brass) <sup>1</sup> , plastics <sup>1</sup>	Fe, Al, Brass, Cu, Mg
<b>Comments</b>	High pressure suitable	Residue formation is very low, salt-free	Low residue formation, salt free	High pressure suitable, contents hydroxide
<b>Notes</b>	For example: used before heat treatment, no turbidity	Universally applicable, low-foaming application from 20 °C, depending on pressure	Universally applicable, e. g. before heat-treatment, low-foam use from 30 °C, sprayable above ~ 45 °C	Nearly foam free from and above 30 °C
<b>corrosion protection, chips / filter test 0/0 at x% at _</b>	temporarily, '3 % / 10° dH	temporarily, '2 % / 10° dH	temporarily, '2 % / in VE-water	temporarily, '2 % / 10° dH
<b>pH, if applicable</b>	8,3 at 3,5 %	9,4 at 2 %	9,6 at 2 %	9,7 at 2 %
<b>Concentration range in %</b>	1–5	1–5	1–5	1–5
<b>Temperature range</b>	60 °C (20–80)	60 °C (20–80)	65 °C (30–80)	65 °C (30–80)
<b>Injection pressure in bar</b>	300	500 (at 50 °C)	up to ~ 25	200 (300 short-term)

Fe – steel, iron, cast iron and stainless steel, <sup>1</sup> to check first.

# 1-Component-Prod

RENOCLEAN MSO 3004	RENOCLEAN MSA 3011	RENOCLEAN VR 1021	RENOCLEAN C 20 K 1427	RENOCLEAN MTA 3003	RENOCLEAN VR 1798 / 2
Neutral cleaner, salt free	Neutral cleaner	Neutral cleaner, salt free	Neutral cleaner, salt free	Spray cleaner, suitable for immersion and ultrasonic	Immersion and ultrasonic cleaner
liquid	liquid	liquid	liquid	liquid	liquid
demulsifying effect	demulsifying effect	demulsifying effect	demulsifying effect	demulsifying effect	slightly emulsifying
lowest	lowest	low	low	moderate	strong
Spray and high pressure cleaning (500 bar)	Spray, pressure flooding and high pressure cleaning	Spray cleaning	Spray cleaning	Spray, immersion and ultrasonic cleaning	Immersion, ultrasonic and manual cleaning
Fe, Al, Brass, Cu	Fe, Al, Ms, Cu, Mg	Fe, Mg, (Al, Cu, Brass) <sup>1</sup>	Fe, (Mg) <sup>1</sup>	Fe, Mg, Al, (Zn, Cu, Brass) <sup>1</sup>	Fe, (Al, Cu, Brass) <sup>1</sup>
Suitable for microfiltration, salt-free, residue formation is very low, high pressure suited	High pressure suitable, contents hydroxide	Residue formation is very low, salt-free	Low residue formation, salt free	Contains hydroxides and phosphates	Contains phosphate, amine and silicate
For example: used before heat-treatment, virtually foam free from 20°C	Foam free from and above 30°C, pressure dependent	For example: used before heat treatment	For example: used before heat treatment	Universally applicable	Also suitable for floor-cleaning, from 20°C
temporarily, '2 % /in VE-water	temporarily, '2 % /10° dH	temporarily, '2 % /10° dH	temporarily, '1,5 % / 10° dH	temporarily, '3 % /10° dH	(temporarily) '9 % /10° dH
9,8 at 2 %	9,8 at 2 %	10,2 at 2 %	10,2 at 2 %	9,7 at 3 %	10,8 at 2 %
1–5	1–5	1–5	1–5	2–7	2–7
60°C (20–80)	60°C (20–80)	65°C (40–80)	65°C (40–80)	60°C (40–80)	65°C (40–80)
500 (at 50°C)	500 (at 50°C)	up to ~ 20	up to ~ 15	up to ~ 15	–



## Products

## Acid cleaners

RENOCLEAN WSA 4002	RENOCLEAN FDC 4001	RENOCLEAN MDA 4002	RENOCLEAN FSA 4017	RENOCLEAN FSO 2010	RENOCLEAN FTM 1001
Spray cleaner	Immersion and ultrasonic cleaner	Immersion cleaner, sprayable	Spray cleaner, suitable for immersion and ultrasonic	Neutral derusting cleaner	derusting, descaling, contains phosphoric acid
liquid	liquid	liquid	liquid	liquid	liquid
demulsifying effect	slightly emulsifying	demulsifying effect	demulsifying effect	slightly demulsifying	-
low	strong	moderate	low	low	low
Spray, immersion and manual cleaning	Immersion, ultrasonic and manual cleaning	Immersion cleaner, sprayable up to 4 bar	Spray, immersion and ultrasonic cleaning	Spray, immersion and ultrasonic cleaning	Immersion, ultrasonic and manual cleaning. Integrated consumption indicator
Fe, Al, (Mg) <sup>1</sup>	Fe, Mg, Titan, plastics <sup>1</sup>	Fe, Fe gal., Mg, (Al) <sup>1</sup>	Fe, (Mg) <sup>1</sup>	Fe, Al	Fe
Contains hydroxides, amines and silicates	Combinable with RENOCLEAN MDT 3002	Contains hydroxides and phosphates	Silicate-free, contains hydroxides, amines and phosphates	Applicable after thermal or ECM deburring	Suitable for cleaning calcified and contaminated cleaning equipment
For heavily soiled items and aggregates (e.g. train, engine and chassis components)	For cleaning tasks in medical technology, supports spot-free drying	For cleaning parts such as: with difficult to remove forming lubricants	For cleaning parts such as: with difficult to remove pigment dirt	Parts are metallic bright after treatment and therefore to be fitted immediately with corrosion protection (RENOCLEAN- or ANTICORIT products)	
temporarily, '2,5 % / in VE-water	-	temporarily, '2 % / 10° dH	temporarily, '2 % / 10° dH	-	-
12,1 at 2,5 %	12,1 at 2 %	12,2 at 2 %	12,2 at 2 %	5,9 at 5 %	1,5 at 2 %
2-7	2-7	1-7	1-7	2-15	5-50
60°C (30-70)	65°C (50-80)	65°C (40-80)	65°C (35-85)	50°C (20-60)	40°C (20-60)
up to ~ 15	-	up to ~ 7	up to ~ 25	up to ~ 10	up to ~ 5

# Special Products

RENOCLEAN SPEZIAL 2000	RENOCLEAN GXA 3004	RENOCLEAN GSO 3001	RENOCLEAN GTM 3001	RENOCLEAN AKTIV DA	Entschäumer GXM 3001
Emulsifying universal cleaner	Floor and Hall cleaner	Cleaner for transport boxes (KLT)	Drying accelerator	Demulsifier	Defoamer
liquid	liquid	liquid	liquid	liquid	liquid
emulsifying	emulsifying	demulsifying	-	demulsifying	-
strong	moderate	low	low	low	none
Immersion, ultrasonic and manual, com- mercial vehicle, tarpaulins, indoor and Workshop cleaning	Floor cleaning machine or manually, equipment cleaning	Spray and manual clea- ning	Spray and immersion application	Separation of emulsified oil	Foam-control additive for cleaning solutions
all materials <sup>1</sup>	all materials	plastics, (metals) <sup>1</sup>	plastics, (metals) <sup>1</sup>	-	-
Contains phosphate	Odorless	To remove oils, grease, abrasion and dust from transport	Antistatic effect on plastic surfaces	Demulsifier with defoaming properties	based on paintable polysiloxanes
Suitable for all manual cleaning, for immersion, for steam jet and floor cleaning equipment	Suitable for all manual cleaning, especially for floor cleaning equipment	Designed for container cleaning equipment	Dosage in rinse for faster drying of plastic boxes	Installations for the removal of demulsified oil are necessary (oil separator etc.)	immediate, long-lasting defoaming and deaeration effect
-	-	-	-	-	-
10,9 at 3 %	9,1	8,6 at 2 %	9,4 at 2 %	7,6 at 100 %	8,7
2-20	2-20	1-10	0,2-1,0	0,1-10	0,01-0,25
35 °C ( <b>20</b> -80)	35 °C ( <b>20</b> -50)	60 °C ( <b>20</b> -80)	50 °C (20-80)	-	-
-	-	up to ~ 5	up to ~ 5	-	-

# Builder components

RENOCLEAN MTA 2001	RENOCLEAN MTA 4001	RENOCLEAN FTA 4002	RENOCLEAN ENTFETTER 39	RENOCLEAN FTA 4001	RENOCLEAN VR 3222
Builder, neutral	Builder, moderate-alkaline	Builder, highly alkaline	Builder, highly alkaline with silicate	Builder, highly alkaline	Builder with corrosion protection, recyclable, salt-free
liquid	liquid	liquid	liquid	liquid	liquid
-	-	-	-	-	-
none	none	none	none	none	none
Immersion, Injection, ultrasonic and spray cleaning	Immersion, Injection, ultrasonic and spray cleaning	Immersion, Injection, ultrasonic and spray cleaning	Immersion, Injection, ultrasonic and spray cleaning, electrolytic degreasing	Immersion, Injection, ultrasonic and spray cleaning, electrolytic degreasing, dephosphating	Immersion, Injection, ultrasonic and spray cleaning, pressure rated
Al, Cu, Brass, (Zn) <sup>1</sup> , plastics	Fe, (Mg, Al, Cu, Brass, Zn) <sup>1</sup> , plastics	Fe, Mg, plastics <sup>1</sup>	Fe, Mg, Al, (Cu, Brass, Zn) <sup>1</sup> , plastics <sup>1</sup>	Fe, Mg, (Cu, Brass) <sup>1</sup> , plastics <sup>1</sup>	all materials
Free of borate, silicate and surfactant, contains phosphates, usable with microfiltration	Free of borate, silicate and surfactant, contains phosphates, usable with microfiltration	Free of borate, silicate and surfactant, contains hydroxide and phosphates, usable with microfiltration	Borate-free, contains hydroxides, phosphates and silicates	Borate-free, contains hydroxides, usable with microfiltration	Free of nitrite, boron, silicate and surfactant, contains amines, usable with microfiltration
Note product info - use with appropriate surfactant					
-	-	-	-	-	temporarily, '3,5 % / 10° dH
8,0 at 2 %	10,1 at 2 %	12,5 at 2 %	12,6 at 2 %	12,9 at 1 %	8 at 3,5 %
2-7	2-7	2-8	2-20	2-18	2-5
65 °C (40-80)	65 °C (40-80)	65 °C (40-80)	65 °C (20-80)	65 °C (20-80)	60 °C (20-80)
-	Applicable injection pressure accordingly used surfactant				

## Surfactant components

RENOCLEAN VR 2729 K	RENOCLEAN MST 2001	RENOCLEAN TENSID 161	RENOCLEAN VR 1500	RENOCLEAN MDT 3002
Builder with corrosion protection, recyclable, salt-free	Cleaning booster, spray and submersible	Cleaning booster, submersible	Neutral cleaner, cleaning booster sprayable	Cleaning booster, emulsifying, submersible
liquid	liquid	liquid	liquid	liquid
-	demulsifying	demulsifying	demulsifying	emulsifying
none	low	strong	very low	very strong
Immersion, Injection, ultrasonic and spray cleaning, pressure rated	Immersion, injection, ultrasonic and spray cleaning	Immersion, injection, and ultrasonic cleaning	Spray cleaning	Immersion and ultrasonic cleaning
Fe, Mg, Zn, plastics	all materials	all materials	all materials	all materials
Free of nitrite, boron, silicate and surfactant, contains amines, usable with microfiltration. Works in the vapor phase as corrosion protection	Microfilterable, highly dependent on membrane and operating parameters!	Microfilterable, highly dependent on membrane and operating parameters!	Use also as a neutral cleaner, free of corrosion protection components	Good ultrasonic support, high oil and fat absorption
	Accordance with Regulation (EC) no. 648/2004			
temporarily, '2 % / 20° dH	-	-	-	-
10,1 at 2 %	6,5 at 2 %	8,4 at 2 %	9,3 at 2 %	9,7 at 3 %
2-5	0,3-3	0,1-1	0,1-2	0,3-2
65 °C (40-80)	65 °C (40-80), spray min. 50 °C	65 °C (40-80)	65 °C (40-80)	65 °C (40-80)
component		-	-	-