RENOCLEAN VR 1021 CXV

High-pressure suitable Spray cleaner, immersible, multimetal-capable

Description

RENOCLEAN VR 1021 CXV is a medium-alkaline, cleaner primarily for spray and high-pressure cleaning systems, but also for immersion, ultrasonic and pressure flooding cleaning equipment.
RENOCLEAN VR 1021 CXV was designed for the cleaning of steel, stainless steel, cast iron, non-ferrous metal and aluminum surfaces. For sensitive materials, a compatibility test is recommended.
RENOCLEAN VR 1021 CXV is low-foaming and has at a concentration of 1-5%, depending on the degree of pollution, a good cleaning effect.
RENOCLEAN VR 1021 CXV is used in high-pressure cleaning equipment up to a pressure of 200 bar permanently and temporary up to 300 bar.
RENOCLEAN VR 1021 CXV has good demulsification propertys, incorporated fats and oils can be removed with suitable devices (oil separators, oil skimmers, etc.), filtration is recommended.
RENOCLEAN VR 1021 CXV can be used from about 40° C for spray cleaning. The higher the injection pressure, the higher the required temperature, but also the achievable cleaning performance. For make-up and supplementation of RENOCLEAN VR 1021 CXV solutions we recommend the use of deionized water to avoid stain formation or corrosion, caused by constituents of the water. In less critical cases, water with a max. hardness of 15°dH can be used.

Application

Application type:
Spray, High pressure spray, Immersion, Ultrasonic

	Typical	Range
Make-up:	3 %	(1 – 5 %)
Temperature:	65°C	(30 – 80°C)
Contact time:	3 min	(0,3 – 10 min)
Spray pressure *)	up to 300 bar	

*) Higher pressure must be checked in each individual case on the relevant system.

Benefits

- „Multi Metal Capable", suitable for almost all materials and surfaces
- Used primarily in spray and high-pressure cleaning systems, but also in immersion, pressure flooding and ultrasonic cleaning equipment
- Reliably removes oil and grease residues, as well as pigment dirt, dust and abrasion
- Demulsifies well incorporated oils and fats
- Liquid, easy make-up, possibly dosable by conductivity, online monitoring possible
- Low foam use from 40° C pressure dependent
- Combinable with additives from the RENOCLEAN series, e. g. demulsifier RENOCLEAN AKTIV DA
- Temporary, nitrite and boron-free corrosion protection with undetectable film, sufficient for the temporary storage of work pieces (see page 5 „Notes on corrosion protection“)

Specifications

VW Approval A29 0976

Storage conditions

The product can be stored in an unopened original container up to 12 months at temperatures between + 5 °C to + 40 °C.

The indication of a minimum period of storage does not include any guarantee of durability.

FUCHS LUBRICANTS (UK) PLC
New Century Street, Hanley
GB-Stoke-on-Trent, Staffordshire, ST1 5HU
Tel +44-1782 -20 37 00
Fax +44-1782 -20 20 73
contact-uk@fuchs-oil.com

RENOCLEAN VR 1021 CXV

High-pressure suitable Spray cleaner, immersible, multimetal-capable

Typical characteristics

Properties	Unit	Value	Test method
Concentrate			
Appearance		clear, yellow liquid	
Density at 15°C	kg/m³	1053	DIN 51 757
Solution			
pH-value 2.0 % in 10° dH water		9.8	DIN 51 369
Chips / filtertest 2.0 % in 10° dH water	degree of corr.	0 and 0	DIN 51 360-2
Concentration factor			
Titration to pH 5.0		5.3	FLV-K-21 *)
Handheld refractometer		2.8	FLV-T-05 *)

The above data is typical of normal production and should not be taken as a specification.
*) FLV = Test procedure of FUCHS SCHMIERSTOFFE GMBH

Information according to Regulation (EG) No 648/2004 on detergents / Labelling of contents

- Nonionic surfactant < 5%
- Amphoteric surfactant < 5%
- Phosphonate < 5%

Other ingredients

- Hydroxide
- Amine

Important notes:

- **Observe Safety data sheet,** in particular individual protection measures**!**
- **Skin protection:** Protective creams use for the skin surfaces which may come into contact with the product, for example the **RENOCLEAN range of Handcare products!**

This product is intended for commercial use only!

FUCHS LUBRICANTS (UK) PLC
New Century Street, Hanley
GB-Stoke-on-Trent, Staffordshire, ST1 5HU
Tel +44-1782 -20 37 00
Fax +44-1782 -20 20 73
contact-uk@fuchs-oil.com

RENOCLEAN VR 1021 CXV

High-pressure suitable Spray cleaner, immersible, multimetal-capable

Concentration determination

The concentration of the cleaner may be determined by following methods:

- Titration
- Photometry (surfactant)
- Online with LiquidSens
- Conductivity (limited)
- Bubble pressure tensiometry
- Degree of corrosion acc. to DIN 51 360-2 (Chip / filter paper corrosion test)
- Refraction (only in case of make-up)

A test method for the exact determination of the concentration on the alkalinity (FLV-K-21), as well as the test method using hand refractometer (FLV-T-05) is available on request.

Sampling

At a homogeneously mixed position take a sample of the cleaner and allow to cool down to room temperature. For existing sample turbidity, let turbidity settle down and decant or filter the solution sample.

Refractometer method (FLV-T-05)

The hand refractometer is wetted bubble free with the solution to be tested. The value read multiplied by the refractometer factor is the concentration of the solution. To adjust the hand refractometer, it is wetted with pure water and set by adjusting screw to zero.

Titration procedure (simply)

The content of the product in the cleaning solution can be detected over determination of the alkalinity as follows:

Exactly 100 ml of cleaning solution to be tested are titrated against methyl orange as an indicator with hydrochloric acid or with sulfuric acid.

Color changes from orange to red.

The concentration is calculated using the following formula:

$$\text{Consumption (V) in ml} * \text{Factor (F)} = \text{Vol\% Product (K)}$$

Factor 0.5 M hydrochloric acid K = 0.19
Factor 0.5 M sulfuric acid K = 0.38

V = required amount of acid in ml
K = concentration in %

Online concentration measurement with LiquidSens of SensAction AG

Measuring system LiquidSens by the company SensAction AG to measure the concentration in the tank or in the flow in the pipe with the right media app (here: No. 6503).

FUCHS LUBRICANTS (UK) PLC
New Century Street, Hanley
GB-Stoke-on-Trent, Staffordshire, ST1 5HU
Tel +44-1782 -20 37 00
Fax +44-1782 -20 20 73
contact-uk@fuchs-oil.com

RENOCLEAN VR 1021 CXV

High-pressure suitable Spray cleaner, immersible, multimetal-capable

Application examples

		Typical system parameters
Use in spray and high pressure cleaning systems		
RENOCLEAN VR 1021 CXV	2	(1 – 4) Vol%
Temperature	65	(40 – 80) °C
Spray pressure	200	300 bar (short time)
Exposition time	1	(0.3 – 3) min
Use in single-chamber-Spray-/Injection machines		
RENOCLEAN VR 1021 CXV	3	(2 – 5) Vol%
If using ultrasonic in combination with		
RENOCLEAN MST 2001	0.4	(0.2 – 0.5) Vol%
Temperature	65	(45 – 80) °C
Spray pressure	12	(up to 25) bar
Exposition time	2	(1 – 3) min
Use in immersion cleaning systems (with / without ultrasonic)		
RENOCLEAN VR 1021 CXV	4	(2 – 5) Vol%
If using ultrasonic in combination with		
RENOCLEAN MST 2001	0.4	(0.2 – 0.5) Vol%
Temperature	65	(30 – 80) °C
Exposition time	3	(1 – 10) min

FUCHS LUBRICANTS (UK) PLC
New Century Street, Hanley
GB-Stoke-on-Trent, Staffordshire, ST1 5HU

Tel +44-1782 -20 37 00
Fax +44-1782 -20 20 73
contact-uk@fuchs-oil.com

RENOCLEAN VR 1021 CXV

High-pressure suitable Spray cleaner, immersible, multimetal-capable

Notes on corrosion protection

With this product corrosion prevention times of 6 days to 6 months can be reached, depending on material and storage conditions, if the following process parameters are maintained:

- The cleaner must be diluted in DI-water (full-desalinated water) with a quality of <10 ppm chloride and <20 ppm sulfate. Chloride and sulfate are corrosion triggers, especially on steel / cast iron and aluminum.
- After cleaning the treated products must be dried quickly. For parts with holes or undercuts a vacuum drying is useful.
- The ambient air must be dry (storage conditions: relative humidity < 65% and a constant temperature of 20°C). Treated parts that go directly to the assembly must be dry and kept in a dry environment.
- Regular checks of the cleaning and preservation solutions along with reviews of the contamination of chloride and sulfate are essential. A decrease in the concentration of the preservative components and / or a too high content of chloride and sulfate can significantly reduce the corrosion protection times.

FUCHS LUBRICANTS (UK) PLC
New Century Street, Hanley
GB-Stoke-on-Trent, Staffordshire, ST1 5HU

Tel +44-1782 -20 37 00
Fax +44-1782 -20 20 73
contact-uk@fuchs-oil.com