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KORYNT ECS

TECHNICAL DATA SHEET
TL 558/2010

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Product characteristics:
KORYNT ECS is water solution of synergic mixture of surface active substances.

Application
KORYNT ECS is used as industrial degreasing agent. Considering the limited foam formation and efficiency it is suitable for high-pressure cleaning systems.

Properties of the product
KORYNT ECS is clear yellow low viscosity liquid. Contained surface active substances are lightly biologically degradable.
It is miscible with water in cold state regardless water hardness.

KORYNT ECS must comply with these quality signs:

Quality mark	Value	Determination methodology
pH sample	12.5 to 13.5	PN-ZM 558/2010
Density at 20 °C in kg.l-1	1.110 to 1.130	PN-ZM 558/2010
Cloud point in °C	45 to 55	PN-ZM 558/2010

Product processing
Recommended solution is 1 part of **KORYNT ECS** per 50 to 100 litres of water according to the type of contamination. In case of stronger contamination it is possible to use higher concentration.
The prepared solution can be applied by submersion (e.g. in ultrasound washers) and by spraying using pressure jets with warm and cold water. With higher temperature (e.g. 40 to 50 °C/ increases the cleaning efficiency.
The use of **KORYNT ECS** in the engineering industry upon agreement with the customer requires an addition of suitable type of corrosion inhibitor in the formula depending on the type of degreasing material.
If the work bath is used for degreasing repeatedly, gradual reduction of the content of active substances occurs, and it is necessary to monitor the content in the work bath. The control is performed by specifying the bath concentration.

Specification procedure:
In 250 ml titration flask pipette 5 ml of work bath tempered to 20 °C, add 20 ml of distilled water, and several drops of phenolphthalein indicator. The sample is mixed and titrated by measured solution of hydrochloric acid $\underline{c}(HCl)=0,1$ mol.dm^{-3} for decolouring (the transfer from red-purple colour to colourless state). The consumption of the measured solution $\underline{c}(HCl)=0,1$ ml.dm^{-3} in ml is directly the value of the degreasing solution concentration. Considering the orientation character of the specification we neglect the factor of measured solution HCl in the calculation.

The example of measured concentration values depending on concentration of **KORYNT ECS** in the work bath is defined in table no. 1:

Table no.1:

Concentration KORYNT ECS in %	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0
Consumption in measured solution HCl in ml	10,3	11,0	11,2	11,4	11,6	12,0	12,5	13,0	13,5

The concentration values of the work bath depending on the concentration of active substances in **KORYNT ECS** differs according to the quality of applied operation water. We therefore recommend to the users of **KORYNT ECS** to adjust the calibration curve according to the measured values. Table no. 1 indicates that if the concentration of the bath drops below certain value when the insufficient greasing effectiveness of the bath is tested in operation, the bath must be completed with agent **KORYNT ECS**. For example – if the tested concentration is sufficient from 1 to 2 % and the concentration drops below 10 ml, we complete the bath with agent 1 kg **KORYNT ECS** per 100 litres of work bath.
Another method to strengthen the work bath and extend its efficiency is to increase the reserve bath alkalinity. It is based on adding suitable water solution of sodium or potassium hydroxide for fresh bath of **KORYNT ECS** and specify the concentration of the bath. It is necessary to test suitable concentration of the bath including the alkalinity in operation on the specific degreasing material to achieve optimum material degreasing results and the bath service life.

It is also necessary to consider the corrosion resistance of the degreasing material. The example of increased reserve bath alkalinity within the limits of common dosing 0 to 2 % sodium hydroxide as define din table no. 2:

Table no.2:

Concentration KORYNT ECS in %	1,0	1,0	1,0	1,0	1,5	1,5	1,5	1,5	2,0	2,0	2,0	2,0
NaOH feeding in %	0,5	1,0	1,5	2,0	0,5	1,0	1,5	2,0	0,5	1,0	1,5	2,0
Consumption in measured solution HCl in ml	19,1	19,8	20,4	20,8	21,1	21,8	22,1	22,8	23,0	23,5	24,1	24,8

The work bath replacement is required during its significant darkening or the loss of degreasing efficiency and after common increase of the bath reserve alkalinity. In case of sludge occurrence we recommend re-filtering the bath.

Packaging, storage
KORYNT ECS is available in PE cans of 50 litre volumes or in other pre-agreed containers. It is stored in closed containers in the locations protected from direct weather conditions. Recommended storage temperature is +5 to +25 °C. Protect from frost!

Transport
KORYNT ECS is transported in covered transport vehicles in compliance with regulations ADR/RID.

Guarantee period
If the product is transported and stored according to the above-mentioned conditions, the warranty is 6 months from the date of warehouse delivery.

Note
The data on the product properties and its processing were received by laboratory measuring and application tests. This technical data sheet can be used for reference purposes, the product processing must be adapted to the specific conditions.