



INDUSTRIAL COATINGS

(CK163)

CHEMKLEEN 163

LIQUID ALKALINE CLEANER

PRODUCT DESCRIPTION



CHEMKLEEN 163 is a liquid; biodegradable alkaline cleaner specifically formulated to prepare metal surfaces to receive a uniform and dense phosphate coating.

PRODUCT ADVANTAGES

- The surfactant system is completely biodegradable.
- It is easily dispersed in water; there are no problems with dissolving this cleaner as encountered with powdered cleaners; it eliminates the need for a slurry tank.
- Cleaner concentration can be controlled easily through the use of metering equipment.
- Efficient cleaning in both immersion and spray applications.
- Used in any tri-metal processing system.

TECHNICAL PROPERTIES



Composition:	Liquid
Appearance:	Slight Amber Color
Odor:	Slight
Specific Gravity:	1.30
Pound per Gallon:	10.7
Flash Point:	None
Foaming Tendency:	Low to Moderate
Recommended Diluent:	Water
Behavior in Hard Water:	Good
Rinsability:	Good
Recommended Concentration:	.25 - 3.0%by volume
Recommended Temperatures:	130°F - 150°F
Recommended Time:	Spray: 60 seconds Immersion: 60 –120 seconds
VOC:	None
Stability:	Moderate

USE & CONTROL INSTRUCTIONS:

RINSE CONDITIONER must be used in the water rinse preceding phosphate whenever **CHEMKLEEN 163** is used on a zinc phosphate line. RINSE CONDITIONER is not required when an iron phosphate system is used.

Bath Make-up

Fill the cleaner bath to approximately 3/4 of the operating level with city water and heat to the operating temperature of 130°-150°F. Turn on the spray pumps or circulating pumps and slowly add the **CHEMKLEEN 163** to the bath and mix well. Bring the solution to the operating volume, mix thoroughly and then check the concentration.

The Control Procedures described in the following section may determine the desired concentration of the CHEMKLEEN 163. The optimum cleaning concentration for your system will be determined by your PPG representative and will be based on the conditions found in your own plant (spray or immersion cleaning, amount of oil on parts, type of oils used, etc.)

CONTROL PROCEDURES

Free Alkalinity

Using a 25-ml pipette transfer 25-ml of the operating bath into a 150-ml beaker. Add 4-5 drops of INDICATOR #5 (Phenolphthalein) and titrate with TEST SOLUTION #4 (0.1 N H₂SO₄) until the solution changes from pink to colorless. The number of ml of TEST SOLUTION #4 required is recorded as the Free Alkalinity.

<u>Concentration (% By volume)</u>	<u>Free Alkalinity (ml)</u>	<u>Total Alkalinity (ml)</u>
.25	.9	1.5
.5	1.8	3.0
1.0	3.4	6.8
1.5	4.9	10.2
2.0	6.5	13.5
2.5	8.1	17.0
3.0	9.8	20.5

The addition of 1.0 gallons of **CHEMKLEEN 163** per 100 gallons of solution will increase the concentration by 1%.

USE & CONTROL INSTRUCTIONS: (continued)

Total Alkalinity

Total Alkalinity can be determined by adding 3-4 drops of INDICATOR #2 (Brom Cresol Green) to the same 25 ml sample and continue titrating with TEST SOLUTION #4 until the solution changes color from blue to yellow. The number of ml of TEST SOLUTION #4 (including ml of Free Alkalinity) is recorded as Total Alkalinity. However, Free Alkalinity is the preferred control method.

As the cleaner bath is used, the Total Alkalinity will rise, representing a gradual loading of the cleaner bath with contaminants. The Total Alkalinity/Free Alkalinity ratio can therefore be used as an indicator of the proper time to dump and recharge the cleaner tank. There is no definite ratio, which is applicable to all systems. Your PPG representative will work with you in determining the optimum dump and recharge cycle for your system, based on your own special operating conditions.

PRECAUTIONS:

Consult the most recent Material Safety Data Sheet for health and safety information relative to the safe handling and storage of this material.

Emergency 24 hour Chemtrec number: 800.424.9300

THIS TECHNICAL DATA BULLETIN IS BASED UPON INFORMATION BELIEVED BY PPG TO BE CURRENTLY ACCURATE. HOWEVER, NO GUARANTEES OF ACCURACY, COMPREHENSIVENESS OR PERFORMANCE ARE GIVEN OR IMPLIED. CONTINUOUS IMPROVEMENTS IN COATINGS TECHNOLOGY MAY CAUSE FUTURE TECHNICAL DATA TO VARY FROM WHAT IS IN THIS BULLETIN. CONTACT YOUR PPG REPRESENTATIVE FOR THE MOST UP TO DATE INFORMATION