

Castrol CARECLEAN™ XHP

HIGH PRESSURE SPRAY CLEANER

Castrol CARECLEAN™ XHP is a specialized cleaning fluid and corrosion inhibitor for extra high pressure spray wash systems. It is specifically designed for use in totally enclosed industrial spray washers operating at 3,500 to 10,000 psi (240 - 690 bar). As a rust preventive, this fluid contains bi-metallic corrosion inhibitors to protect copper heat exchangers, pump parts and other equipment.

PERFORMANCE BENEFITS

- Low foam eliminates foam-outs in spray washers and enhances performance in transfer lines.
- Excellent short-term corrosion protection.
- Low pH reduces the possibility of skin irritations.
- Highly resistant to bacterial and fungal attack.

SOILS REMOVED WITH Castrol CARECLEAN™ XHP

Crankcase and light gear oils
Dyes and inks
Emulsions
Flux residues
Grinding oils
Heat treat oils
Honing oils
Hydraulic oils
Light forming oils
Light viscosity cutting oils
Lubricating oils
Medium viscosity cutting oils
Oily-film rust preventives
Swarf, dust and dirt
Synthetic cutting and grinding fluids
Thin soft-film rust preventives

METAL SAFETY

Castrol CARECLEAN™ XHP is safe to use on ferrous metals. Consult your Castrol Sales Engineer for questions regarding compatibility.

RECOMMENDED APPLICATIONS & DILUTIONS

Spray: 3 - 5% concentration; ambient to 150° F (65° C)

CASE HISTORY

Account: Manufacturer of transmissions

Customer need: In-process spray cleaner

At this facility, **Castrol CARECLEAN™ XHP** is used in two ways. First, aluminum transmission cases are spray washed with **Castrol CARECLEAN™ XHP** to remove **Castrol SYNTILO® 2907**, a water soluble cutting and grinding fluid. Then, as a deburring agent, **Castrol CARECLEAN™ XHP** removes rough spots left from machining.

Castrol CARECLEAN™ XHP is mixed in 20 grain water and used at 110° F and 120° F (44° - 49° C). The transmission cases are spray washed for approximately 10 - 15 minutes. Cleanliness is not measured because it is an in-process washer.

The manufacturer restricts DEA, MEA, nitrites and silicates. **Castrol CARECLEAN™ XHP** is free of these chemicals and meets such standards. Furthermore, it is successfully waste treated on-site.

At 2%, the previous cleaner experienced bacterial problems, plugged fluid lines and foam. A 4 - 5% solution of **Castrol CARECLEAN™ XHP** reduces foam and produces cleaner transmission cases.

TYPICAL CHARACTERISTICS

Appearance of Concentrate: Clear yellow fluid

pH of Concentrate: 8.5 - 8.9

pH of Solution @ 5%: 8.1 - 8.5

Specific Gravity @ 60° F (16° C): 1.13

Bulk Density (lbs/gal): 9.4

Nitrites: None

Phosphates: None

Silicates: None

CONCENTRATION CONTROL

By titration:

1. Place (pipet) 50 ml sample of **Castrol CARECLEAN™ XHP** solution into a flask or beaker.
2. Titrate 1.0 N sulfuric acid from a buret until reaching 4.6 on the pH meter.
3. The concentration of the **Castrol CARECLEAN™ XHP** solution in % (v/v) can be calculated by multiplying the volume of 1.0 N sulfuric acid in ml by the concentration factor.
4. Prior to running tests on field samples, follow the above method using a sample of known concentration to obtain the concentration factor.

Concentration factor = % known concentration/ml acid needed to reach the end point.

With Hach kit:

Add 2 vials of **Castrol CARECLEAN™ XHP** solution and 1 pillow of indicator to mixing bottle. Count the drops of 1.0 N sulfuric acid required to change the color of the solution from green to pink.

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|-----------------------|---|---|---|---|----|----|
| Concentration % (v/v) | 1 | 2 | 3 | 4 | 5 | 10 |
| Drops | 2 | 4 | 6 | 8 | 10 | 20 |

All reasonable care has been taken to ensure that the information contained in this publication is accurate as of the date of printing. However, such information may, nevertheless, be affected by changes in the blend formulation occurring subsequent to the date of printing. Material Safety Data Sheets are available for all Castrol Industrial North America Inc. products. The MSDS must be consulted for appropriate information regarding storage, safe handling and disposal of a product.

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