



ALKALINE DERUSTER HD

Heavy Duty Alkaline Degreaser



Transportation



Highly concentrated, alkaline, aqueous cleaner with chelants and flash rust inhibitors to remove rust, carbon, scale and other soils. Designed for immersion applications that use turbulence or ultrasonic agitation. Low foaming for use in spray wash applications where ventilation is adequate. Readily soluble in tap water, the Alkaline Deruster HD is free rinsing.

Alkaline Deruster HD will provide users a long tank life. In high volume heavily soiled cleaning processes a precleaning step may be considered. Removal of excess oils and greases will reduce excessive contamination of the bath. Your BHC representative can recommend a suitable precleaner.

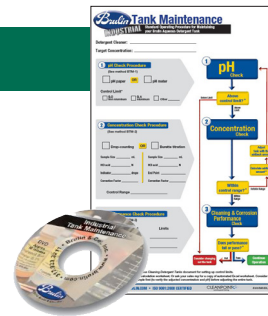
Benefits

- **Liquid, Not Powder** – easy dilution without the hazard of extreme local heating that may happen with powders resulting in local boiling or “blowback”
- **Paint Removal** – will remove some/old paint
- **Effective** – removes rust, carbon, and scale from a variety of components
 - Heavily contaminated ferrous parts of internal combustion engines such as valves and cylinder heads
 - Plastic injection molds

TANK MAINTENANCE

Proper maintenance of your immersion/ultrasonic tank will ensure the longest possible detergent bath life, the best parts cleaning performance and the optimal assurance against part corrosion.

BHC has developed Maintenance Guidelines for Aqueous Detergent Tanks, a comprehensive flow chart to illustrate the process and a step-by-step video to guide you through.



Concentration Verification for Alkaline Deruster HD

| Burette Test Method | |
|---|-----------------------------|
| Use this when tank strength is 20-50% (v/v), Derusting Conditions | |
| Sample Size: | 50 mL |
| Titrant: | 1.0 N HCl or H2SO4 Solution |
| pH Endpoint: | 8.50 |
| Concentration %: | mL Titrant x 2.45 |

| Burette Test Method | |
|---|-----------------------------|
| Use this when tank strength is 2-20% (v/v), General Cleaning Conditions | |
| Sample Size: | 10 mL |
| Titrant: | 1.0 N HCl or H2SO4 Solution |
| pH Endpoint: | 8.50 |
| Concentration %: | mL Titrant x 1.21 |



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Performance Properties

Substrates

Alkaline Deruster HD is suitable for a variety of alloys. Some selected categories of materials compatible with Alkaline Deruster HD include*:

Ferrous Metals: Carbon Steel • Stainless Steel • Steel

Non-Ferrous Metals & Alloys: Titanium & Titanium Alloys

Plastic & Composites: High Density Polyethylene/HDPE • Polypropylene/PP

Not for use on aluminum-based alloys and IVD coatings, chromium and tin plating, copper-based alloys (brass, bronze, 90/10 and 70/30 copper nickel alloys), and zinc galvanized steel substrates.

Soils

Alkaline Deruster HD removes a wide range of organic and inorganic soils. Some categories of soils that can be removed with Alkaline Deruster HD include*:

Carbon • Chromated Primers • Coolants • Corrosion, Oxidation (Non-Rust), Corrosion (Rust) • Dirt (Particulate) • Fat • Grease • Mineral Deposits • Oil (General)

**Material compatibility should always be confirmed via testing with specific substrates under specific cleaning conditions.*

Use Recommendations

| | |
|-----------------------------------|---|
| System | Immersion & Ultrasonic Tanks / Spray Wash (Batch or Continuous) |
| Dilution | 2-20% for general cleaning, 20-50% for derusting/descaling[2], [4], [5] |
| Cleaning Temperature Range | 120-200°F (49-93°C) for general cleaning, 160-200°F (71-93°C) for derusting/descaling with 180-200°F (82-93°C) being preferred[4] |
| Cleaning Duration | 1-60 minutes for general cleaning, 10-60 minutes for derusting/descaling[4] |

- [1] Do not add Alkaline Deruster HD to hot water on initial charge (it is not necessary that make-up be cold).
- [2] If ultrasonic agitation is present, it may be possible to operate with concentrations as low as 0.2%(v/v) on some soils. Parts should be precleaned to remove gross filth such as oils and greases to minimize contamination of Alkaline Deruster HD.
- [3] This product is inherently non-foaming at all temperatures but excessive foaming may occur if the soil is inherently foamy.
- [4] For titanium descaling, do not exceed tank strength of 30%(v/v), operating temperature of 170°F (77°C) or 15 min cleaning duration to avoid etching and excessive stock lost. Titanium should also be cleaned only in a tank dedicated to that alloy as the presence of other metals increases the potential for etching.
- [5] Some aluminum alloys may be safely cleaned at dilutions of less than 0.5% (V/V) with exposures of less than 60 seconds and temperatures below 120°F (49°C). Test on a representative scrap part first.

Typical Chemical Characteristics

| | |
|-------------------------------|-----------------------------------|
| Physical Form | Liquid |
| Color | Yellow |
| Fragrance | Mild |
| Viscosity | Water-thin |
| Weight | 10.90 lbs/gal (1.31 g/mL) |
| pH of Concentrate | >13 |
| pH of Working Solution | >13 |
| Flash Point (PMCC) | None to boiling |
| Foaming Tendency | Very low [3] |
| Calculated V.O.C | 0% (0 g/l) |
| Freeze/Thaw | Reusable after thawing & remixing |

Shipping: PACKING GROUP II.

Storage: Store in well-ventilated areas at temperatures between 40-110°F (4-43°C). The recommended shelf life of this product is 24 months.

Disposal: Biodegradable. Pretreat by skimming and/or filtering. Final sewerability is determined by the municipal sewer district covering the plant location.

Product Number: 431010

Availability:

- 5 Gal (19L)
- 55 Gal (208L)

BHC offers a full line of Burlin-branded industrial chemicals for industries such as Space & Aerospace, Automotive, Precision Metal, Medical and Optics.



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