

# HOUGHTO-QUENCH® 3430

## Medium to Fast Cold Quenching Oil

### DESCRIPTION

**HOUGHTO-QUENCH 3430** is formulated to provide a medium to fast quench speed and is further designed to retain that quench speed whether permeated with Propane, Endo, Exo, Ammonia gases, barium, iron, nickel, chromium metals or chloride and carbonate salts.

**HOUGHTO-QUENCH 3430** is recommended for initial filling of oil systems when quench speed is necessary for hardness and there is additional desire for resistance to distortion of steel.

### FEATURES

- Resistant to normal contaminants
- Controlled, fast quench speed
- Better control of distortion
- Quenches work from air, atmosphere and salt
- Compatible with other oils
- Minimal dragout meaning less smoke and makeup required
- Maximum metallurgical and physical properties.
- A fast rate of cooling in the initial stage of quenching
- Elimination of waste due to minimal quench oil degradation
- Low quench oil cost per kg of work processed.

### TYPICAL VALUES

Product Appearance	Brown Oil
Flash Point (COC)	> 165°C
Fire Point (COC)	> 180°C
Specific Gravity @15 °C	0.850 kg/L
Viscosity @40 °C	17 cSt
Maximum Quench Rate	95°C/s
Quench Speed	10—12 second

### HEALTH AND SAFETY

Refer to MSDS for proper handling and disposal. Please note that the MSDS includes handling, health and disposal information which should be passed on to your employees, and to anyone else who comes in contact with our product. Additional advice can also be obtained from your local Houghton representative.

NOTE: Read and understand all precautions on container labels before using this product.

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D.A. Stuart India Private Limited  
Plot No. 32A. HUDA Enclave,  
Jubilee Hills, Hyderabad  
Andhra Pradesh 500033 India

Phone: +91 (40) 2354-1250  
Fax: +91 (40) 2354-4869  
info@houghtonindia.com  
www.houghtonindia.com

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### REFERENCES

Circulation of **HOUGHTO-QUENCH 3430** during quenching is recommended in order to disperse the vapour blanket, to ensure that hot oil at the surface of the component is replaced by cold oil, and to maintain a uniform oil temperature throughout the tank. Circulation can be by pump or impeller or by agitation of components but should break the oil surface as little as possible to minimize oxidation. Compressed air is not recommended, since this can reduce oil life by promoting oxidation. Water contamination of mineral oil based quenchants can have a significant influence upon quenching performance. As little as 0.1% of water can cause soft spots resulting from the formation of steam pockets. In addition the cooling rate at lower temperatures is increased significantly and this can cause distortion and cracking of components. Water-cooled heat exchangers should be checked regularly for leaks to prevent possible contamination of the oil. Care should be taken with sealed quench furnaces to prevent water contamination from condensation inside the quenching vestibule.

### HOW TO USE

**HOUGHTO-QUENCH 3430** is used neat, as supplied, from the drum.

### SHELFLIFE & AVAILABILITY

Under normal conditions the recommended shelf life for **HOUGHTO-QUENCH 3430** is a minimum of Twelve (12) months, unless otherwise specified.

**HOUGHTO-QUENCH 3430** is available in Pail, Drum or Tote. Other sizes may be available upon request, please contact your Houghton sales representative.

### RELATED PRODUCTS

- HOUGHTO-QUENCH®: Cold and Warm Quenching Oils
- DASCO-QUENCH®: Cold, Warm and Hot Quenching Oils
- VOLUTA™: Cold, Warm and Hot Quenching Oils
- MAR-TEMP®: Hot Quenching Oils
- AQUA-QUENCH®: Polymer based Quenching Fluids
- DASCOLENE™: Straight OEM approved cutting oils
- HOCUT®: Water miscible metalworking fluids
- HOUGHTO-GRIND®: Straight and water miscible grinding fluids
- HOUGHTO-DRAW®: Straight and water miscible drawing stamping and forming fluids.
- CINDOL™: Straight and water miscible drawing and forming fluids especially for Aluminium parts.
- CERFA-KLEEN®: Water miscible cleaning fluids
- VIBRA-KLEEN®: Water miscible vibrating cleaning fluids
- CALLINA™: Water miscible cleaning fluids
- ENSIS™: Straight and water miscible rust preventive fluids.
- RUST VETO®: Straight and water miscible rust preventive fluids.
- COSMOLINE®: MIL-SPEC Straight and water miscible rust preventive fluids.
- HOUGHTO-SAFE®: Water-Glycol and Phosphate Ester fire resistant hydraulic fluids
- COSMOLUBRIC®: Water-Glycol fire resistant hydraulic fluids
- HYDROLUBRIC®: Synthetic water additive fire resistant hydraulic fluids

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