

Hard-Cut® 5618 *Straight Cutting Oil*

FEATURES

- High Level of Extreme Pressure Additive
- Maximizes Productivity
- Maximizes Speeds and Feeds
- Non-Hazardous
- Non-Toxic
- Solvent Free

GENERAL DESCRIPTION

The **Hard-Cut 5618** represents the third generation of performance above the traditional Hard-Cut oils. The "8" signifies a two fold increase of the synthetic fraction in the product. The Hard-Cuts are the first choice by the aerospace, electronic and medical industries. The **Hard-Cut 5618** is highly recommended for use on stainless steels, hardened steels, high nickel alloys, titanium and aircraft aluminums. **Hard-Cut 5618** has an extreme low viscosity making it perfect for honing, small diameter gun drilling and small diameter swiss turning. High quality raw materials help provide for both an operator friendly and environmentally compliant product. Reduced smoke, cleaner machines, low odor and non-irritating are just some of the benefits. As with all of Hangsterfer's Hard-Cuts, they are non-toxic and non-corrosive.

APPLICATIONS

Primary			Secondary	
Brushing	Gun Drilling	Micro Tooling	Grinding	Stamping
Honing	Lapping	Sawing		
Small Hole Drilling	Light Machining			

MATERIALS

Primary		Secondary	
Aluminum	Nickel Alloys	Bronze	Powdered Metals
Armor Plate	Steel	Ceramics	Tungsten
Chromium Alloys	Stainless Steel	Magnesium	
High Temperature Alloys	Titanium		

INSTRUCTIONS

Hard-Cut 8 series is normally used where any cutting oil is used as is and on most materials. The Ozonic 203 or VS-315 is recommended to clean Hard-Cut 8 series at the machine in process or as a final utility clean. The Ozonic and VS product can be mixed back in to the Hard-Cut products as they become saturated. Please see the Ozonic and VS brochures for the recommended procedures.

MAINTENANCE & CLEANING

Maintenance: While straight cutting oils are not susceptible to the broad range of problems encountered with a water based fluid, regular maintenance does improve their performance and extend their life. The Hard-Cut oils are designed to reject foreign contaminants, such as metal fines. If the performance of the oil begins to deteriorate, remove the oil from the machine and allow to settle in an empty drum or settling tank for 3-7 days. Fines and contaminants will settle to the bottom. After settling, return the top 80% to the clean machine. In order to get the maximum life from your oil, keep the sump free of cleaners, solvents, rust inhibitors, coolants and other contaminants which may inhibit performance.

Cleaning: Hangsterfer's products are formulated to be cleaned in Aqueous, Semi-Aqueous, and Solvent based cleaning systems. Depending on the required level of cleanliness one or more cleaning systems might be required. Hangsterfer's neutral pH "Clean All" (Aqueous) and "Ozonic 203" (Solvent) can be used separately or part of a multistep cleaning system. Cleaning systems agitation, pressure, ultrasonic, time, and temperature greatly aid the efficiency.

PRODUCT CHARACTERISTICS

Product:	Hard-Cut 5618
Form	Liquid
Color	Red
Odor	Mild
Specific Gravity	0.840 – 0.860
Viscosity: SUS @ 100°F	36 – 44
cSt @ 40°C	5 – 6
Pour Point, °F/°C	<0 / -18
Solubility in Water	<0.01%
Vapor Pressure, mm Hg @ 25°	<0.01
pH @ 10%	N/A
Chlorine	Added as EP Additive
Sulfur, Active	None

WASTE TREATMENT

Dispose of in accordance with local, state, federal and international laws. As with most used oils, they can be re-refined or used in energy recovery systems.

SHIPPING UNITS

All Hangsterfer's products are available in 5 gallon, 55 gallon and Intermediate Bulk Containers (275 or 330 gallons). All products are distributed worldwide.

Date: 7/26/13 Revised: 6/4/2019

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