MAXIM™ METALWORKING

DATAFILE

DURACUT CUTTING OILS
ACTIVE SULFO / CHLORINATED OILS FOR DIFFICULT MACHINING

The **DURACUT LINE** of conventional (dark) cutting oils comprise a series of red amber to dark brown, premium quality, " active " sulfo / chlorinated metalworking oils.

Each **DURACUT** oil is specially formulated using a carefully balanced blend of lubricating additives, highly refined sulfurized fats and chlorinated extreme pressure compounds in various combinations to promote optimum performance in the specific service for which each is recommended. Anti-mist additives are utilized in products with finished viscosities below 200 SUS @ 100 deg.F to suppress fogging and all **DURACUT CUTTING OILS** contain rust inhibitors to provide protection for machined pieces and machine tools alike.

A blend of severely hydrotreated base stocks are incorporated in the **DURACUT** line of conventional cutting oils and exhibit characteristics such as thermal stability in high speed machining as well as lower smoking tendencies. They also have very low pour points to facilitate handling at lower temperatures.

DURACUT CUTTING OILS are designed to provide long tool life and superior finish in all types of machining operations on ferrous metals, from free machining steels . . . to the most difficult to machine alloys.

PRODUCTS

DURACUT 110-D, 180-D, and 220-D
General purpose cutting oils for ferrous metals in normal machining operations. An excellent choice when working carbon or free machining steels or for use in light machining on alloy steels.

DURACUT 250-D, 320-D, and 340-D
These metalworking oils will satisfy 80% of all ferrous metal machining requirements and are recommended for a superior finish on most metal alloys. **DURACUT 320-D** with a viscosity of 140 SUS @ 100 deg.F is recommended over **DURACUT 340-D** where a light viscosity oil with high active sulfur/chlorine content is required. An excellent choice for most machining operations including threading, lathe work, drilling, planing, shaping and many hobing and broaching operations.

DURACUT 380-D and 410-D
This group of oils exhibit the highest content of sulfo-chlorinated extreme pressure additives in MAXIM's standard metalworking oil line. These oils are recommended for use in operations involving the most difficult to machine alloys including stainless, titanium and high nickel steels in such difficult operations as gear hobing and internal broaching. These oils are also recommended for the threading of pipe with outside diameters larger than 3 inches.

ADVANTAGES

* Full range of products for all applications
* Provides long tool life and superior finish
* Thermally stable in storage or service
* Low smoking tendencies
* Excellent suppression of oil fogging and misting

PHYSICAL AND CHEMICAL PROPERTIES

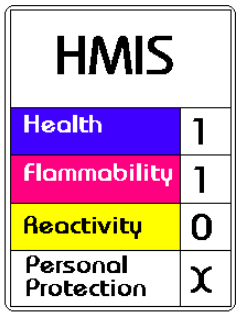
DURACUT	110-D	180-D	220-D	250-D	320-D	340-D	380-D	410-D
Item No.	04011	04019	04023	04025	04039	04043	04045	04051
Appearance	dark	dark	dark	dark	dark	dark	dark	dark
Flash Point, COC F	>350	>350	>350	>350	>350	>350	>350	>350
Specific Gravity, 60 F	.87	.87	.88	.88	.87	.88	.88	.88
Viscosity, SUS @ 100 F	135	170	180	200	140	185	220	250
Sulfur, % Total	1.0	1.0	1.0	1.3	1.5	1.5	2.0	2.5
Sulfur, % Active	0.3	0.3	0.3	0.4	0.5	0.5	0.7	0.8
Chlorine, %	1.0	1.0	2.0	1.3	1.5	1.5	2.0	2.5

DURACUT DARK CUTTING OILS contain various amounts of "active" sulfur. Therefore, these active sulfo/chlorinated oils are not recommended for non-ferrous metals such as copper, brass, or bronze. In such applications, please contact your MAXIM representative for data information on: **DURACUT DUAL / TRI PURPOSE METALWORKING OILS and AUTOMAX CUTTING OILS**. These Duracut cutting oils contain various amounts of chlorinated paraffin as an active extreme pressure additive. Though these compounds have not been listed as carcinogenic, recent toxicological studies on lab animals may reveal a possible or potential health risk to humans. The chlorinated paraffins used in these products are not presently regulated or labeled hazardous. However; under specific conditions during use or disposal, it is suspect that chlorinated paraffins, in a state of decomposition, could form minute amounts of chlorines with known hazards. Please read and understand the Material Safety Data Sheet before handling or disposing of this product. Where the use of chlorinated paraffin containing compounds is of particular concern, ask for the " NC " version of the above products in which a chlorine replacement additive is utilized.

DURACUT OILS are available in 55 gallon steel drums, totes and bulk quantities.

Shipping Identification / labeling:

PETROLEUM PRODUCTS,
CLASS 65, NMFC 1552 50
NOT D.O.T. REGULATED



For additional information, product samples, etc., please contact;
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