



Bright-Cut® AD, AH, AM, AXH, NM, NHG Metal Working Fluids

Product Data Sheet

Customer benefits

Bright-Cut metal working fluids deliver value through:

- **Excellent anti-weld performance, extended tool life and superior surface finish**, without chlorine and with reduced amounts of sulfur.
- **Clear, light color** allows operator to better see the machined part during the cutting operation.
- **Minimal odor** - Does not have the strong sulfur smell characteristic of conventional cutting oils, resulting in a more pleasant work environment.
- **Chlorine-free** - Reduces the cost of disposal at the end of the fluid life.
- **Better thermal and oxidation stability** - For longer fluid life, due to Group II base stocks found in NM, AM, AH and AXH grades.
- **Reduced misting and smoking for a safer work environment** - The thermal stability and low volatility of the Group II base stock and the use of an effective mist suppressant reduces worker exposure to cutting oil mist and vapor.
- **Multipurpose performance** - The non-staining cutting oils are formulated to serve as the cutting oil, hydraulic fluid and machine lubricant to eliminate the problem of machine lubricants contaminating the cutting oil.

Product features:

Bright-Cut metal working fluids are chlorine-free cutting oils that offer benefits not found in conventional cutting oils. The unique synthetic anti-weld components replace the chlorine and reduce the amount of sulfur typically needed for difficult cutting operations. They are light in color, for improved visibility during machining, and low in odor.

Bright-Cut metal working fluids:

- Provide excellent cooling and lubrication in a wide range of machining operations
- Prevent welding of chip and tool
- Flush chips away from the work area
- Protect the finished work surfaces, tools and machines against rusting and staining
- Bright-Cut AD, AH, AXH, AM contain active sulfur that will stain copper and brass
- The nonstaining oil, Bright-Cut NM Metalworking Fluid, can be used as a dual or tri-purpose oil in associated splash, hydraulic or spindle lubrication systems of metalworking machines.
- Minimises oil mist in high speed machine tools



Bright-Cut® metal working fluids

Product application

Bright-Cut AD

- Service Classification: Deep Drilling, Active

A low viscosity, heavy duty oil for drilling and reaming deep holes in difficult ferrous and nonferrous metals. It is also recommended for heavy duty machining operations where a lower viscosity cutting oil is preferred. If used with copper or brass, staining will result. However, many brass alloys stain relatively slowly, and in some instances staining can be avoided by washing the oil from the parts shortly after machining.

Bright-Cut AH

- Service Classification: Heavy Duty, Active

Provides excellent performance for a wide range of applications. It is suitable for machining tough alloy steels and stainless steels. It is well adapted for broaching, threading, tapping and other difficult operations requiring a heavy duty oil for tool life and finish.

Bright-Cut AM

- Service Classification: Medium Duty, Active

A versatile, general purpose cutting oil for use with carbon steels and alloy steels. It provides the cooling needed for light-to-moderately severe machining operations and gives excellent tool life and finishes in operations such as tapping, threading, drilling, gear shaving and turning.

Bright-Cut AXH

- Service Classification: Extra-Heavy Duty, Active

Designed for the most difficult machining operations, such as broaching, tapping and threading on soft stringy steels that tend to tear easily, leaving a poor finish. It is recommended for use with alloy steels, stainless steels, tool and die steels. It is preferred over chlorinated cutting oils for heavy duty machining of difficult nonferrous metals (e.g. titanium, nickel) that are not subject to staining, but may become brittle through the use of chlorinated fluids

Bright-Cut NM

- Service Classification: Medium Duty, Non-staining

The workhorse tri-purpose cutting oil, suitable for automatic screw machine operations on free-machining to intermediate steels, and intermediate to difficult nonferrous metals.

Bright-Cut NHG Metalworking Fluid

- Service Classification: Honing/Grinding, Nonstaining

A low viscosity cutting oil that is designed for use in light duty machining or honing and grinding operations on ferrous and nonferrous metals, particularly aluminum, magnesium and their alloys. It can also be mixed with other Bright-Cut Metalworking Fluids to adjust their compounding to meet the demands of a specific machining operation.

Product specifications

BRIGHT-CUT®							
KEY PROPERTIES							
Grade		AD	AH	AM	AXH	NM	NHG
Product Code		530730	530731	530732	530733	530734	530735
Viscosity, Kinematic							
cSt at 40 °C		12.0	41.0	37.1	53.0	38.9	4.68
cSt at 100 °C		3.2	6.7	6.36	7.8	6.5	-
Flash Point, °C		160	194	218	196	210	129
Pour Point, °C		-16	0	-4	0	-12	-6
Color		L 1.5	L 1.5	L 1.5	L 1.5	L 1.0	L 0.5
Total Sulfur, m %		1.7	1.7	1.1	2.7	0.5	0.1
Active Sulfur, m %		1.6	1.6	0.5	2.6	-	-
Synthetic EP, m %		4.5	4.5	5	7	5	-
Antimist		No*	Yes	Yes	Yes	Yes	Yes*

1108

* Anti-mist is ineffective in low viscosity oils.

ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit: www.chevronlubricants.com.

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by:
Chevron Lubricants
 - Asia Pacific