



## Customer benefits

### Protects against wear

Extreme pressure performance withstands heavy shock loads typical of rock drill service, protecting the equipment against rapid wear.

### Protects surfaces in wet environments

Excellent emulsification properties prevent water wash-off from critical areas when operating with wet air, or during hollow rod “wet drilling” operations. Effective rust and corrosion inhibitor system protects critical components in wet air or “wet drilling” operation.

### Enhanced performance

Highly refined base oils with low carbon forming characteristics and special oxidation inhibitor prevent the formation of sludge and deposits which can produce sluggish valve action. Effective anti-foam inhibitor resists foaming in air-line lubricators to enable easy control of oil feed by ensuring regular supply of lubricant to the tool. Special anti-fogging additive minimizes oil fog formation in equipment exhausts.

## Applications

- Percussion-type air tools operating under wet or dry conditions, including:
  - Rock drills
  - Concrete and pavement breakers (jackhammers)
  - Tampers
  - Rammers
  - Riveting and chipping hammers, etc.
- Centralized lubricators of larger crawler-mounted pneumatic drill rigs
- Below are general ambient temperature guidelines for adequate atomization of air-line lubricators. OEM guidelines precede these, and should always be followed.
  - Aries 100 : 5°C to 25°C
  - Aries 150 : Above 25° C
  - Aries 320 : Above 30°C

## Product features:

- Aries® is a high performance lubricant for percussion-type air tools, which is formulated from highly refined mineral oils, extreme pressure, oiliness and tackiness additives, emulsifiers, rust and corrosion inhibitors, and anti-foam and anti-fogging agents.

## Typical key properties

ARIES®				
ISO Grade		100	150	320
Product Code		540554	540555	540557
	Test Method ASTM			
Copper Strip Corrosion, 3 hrs @ 100°C	D130	1b	1b	1b
Pour Point, °C	D97	-27	-21	-15
Viscosity,				
— mm <sup>2</sup> /s @ 40°C	D445	96.0	143	305
— mm <sup>2</sup> /s @ 100°C	D445	11.5	15.2	26.3
Viscosity Index	D2270	107	104	96

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## 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](http://www.chevronlubricants.com)

## Performance standards

Aries lubricants meet the requirements of Ingersoll-Rand Rock Drill Oil Specification



## Aries®

### Service considerations

Rock drills are precision built units with close tolerance parts that must operate under heavy loads in adverse conditions. During operation, rock drill temperatures may vary widely from low ambient to localized hot spots, particularly when a drill is run dry or “on cushion”, such as when withdrawing the rod from a hole. Boundary lubrication conditions often prevail due to the sliding action of the heavily loaded piston, which is further accentuated by its rapid reciprocating motion. Moisture, in the form of wet air operating systems or leakage of water past seals during hollow rod “wet drilling operations”, can cause rusting and wash the lubricant from critical areas.

In addition to supplying drilling energy, most rock drills use the compressed air to also carry fine droplets of misted oil to the moving parts of the drill. Oil is metered into the air stream through an air line oiler or venturi. This oil must be carefully metered to provide adequate lubrication, since insufficient or inadequate lubrication can cause rapid drill failure due to wear.

In the case of air-line lubrication, correct viscosity grade selection is necessary for acceptable lubrication. The amount of air picked up and carried by the air steam, in air-line lubricators, depends largely on the viscosity grade of the selected lubricant and the temperature of the lubricant in the lubricator. Lubricant temperature will be determined by the air temperature surrounding the lubricator and the temperature of the compressed air. Where tools are not operated continuously, or the air receiver is located far enough from the tools such that the compressed air cools before reaching the lubricators, the ambient air temperature is generally the controlling factor in viscosity grade selection.

OEM guidelines on viscosity selection should always be followed. In the absence of specific equipment manufacturers’ recommendations on grade selection, the guidelines shown in the “Applications” section will assist in ensuring that adequate atomization is obtained in the air-line lubricator.

In addition to correct viscosity grade selection, a uniform, dependable supply of lubricant is extremely important for extended life and reliable operation from percussion-type air tools.

Except for the smallest tools, air-line lubricators of the proper size should be installed at the correct distance from the tool (about 3 to 4 metres). Maintenance schedules should be arranged so that the lubricators are refilled at the correct intervals to prevent the tools from being run dry. Periodic blowing of the air lines to remove collected water and dirt will also assist in obtaining good lubrication.

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