



## Technical Data Sheet

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# AXAREL<sup>®\*</sup> 6100

## Precision Cleaner

### Description

AXAREL 6100 Precision Cleaner is a blend of aliphatic hydrocarbons formulated to offer an excellent combination of low-odor, minimum residue, and a broad range of solvency. It is a non-aqueous cleaning agent suitable for removing a wide variety of soils in immersion or hand-wipe cleaning applications.

AXAREL 6100 was developed so that it evaporates rapidly, leaving no residue on the substrate surface to interfere with subsequent processing of the parts. The product is normally selected over **AXAREL 4100** when a higher flash point and slower evaporation rate are desired. It is a direct replacement for 1,1,1-trichloroethane and other low flash point, flammable materials.

### Applications

AXAREL 6100 is specifically designed for general purpose cleaning and removal of a broad range of soils. It is recommended for removal of oils, lubricating fluids, metal cuttings and fines prior to painting, bonding, plating, or coating. The product may also be used for soil removal prior to machining, grinding, or polishing of substrates.

AXAREL 6100 may also be utilized in more specific applications such as final cleaning prior to packaging and cleaning prior to assembly of component parts. The product is often used to maintain cleanliness of parts and equipment employed in processing substrates.

### Process

AXAREL 6100 is suitable for use at ambient temperature in a variety of commercially available cleaning equipment including ultrasonic systems, spray-under-immersion systems, recirculating-type parts washers, and immersion/soak tanks.

Vapor degreasers can be modified to use AXAREL 6100 as a cold immersion cleaner by simply removing the heat sources and using the ultrasonic tank as an immersion bath. The spray wand may be used to flood the parts with AXAREL 6100 if needed. Operating the vapor degreaser cooling coils has been found to reduce chemical consumption

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\* AXAREL is a registered trademark of Petroferm Inc.

and odor. For more specific equipment recommendations, please contact Petroferm.

**Typical Properties**

**Table 1.**

Appearance	Colorless liquid
Flash Point (Pensky-Martens Closed Cup)	142°F (61°C)
Specific Gravity @ 25°C	0.82 ± 0.01
Viscosity @ 25°C	1.6 cps
Vapor Pressure @ 20°C	<1.0 mm Hg
Kauri-Butanol (KB) Value	39.6
Odor	Mild

**Environmental and Regulatory**

**Table 2.**

Biodegradability	Complete (EPA 28 day test)
Ozone Depletion Potential (ODP)	Zero
Global Warming Potential (GWP)	Low
Volatile Organic Compound (VOC)	820 g/l (EPA Method 24a)
Significant New Alternatives Program (SNAP)	Approved
Hazardous Air Pollutants (HAP)	No
National Emission Standards for Hazardous Air Pollutants (NESHAP)	Not regulated
Superfund Amendments and Reauthorization Act (SARA)	Not regulated
Resource Conservation and Recovery Act (RCRA)	Not regulated

**Safety and Toxicity**

Please see Material Safety Data Sheet for detailed information.

**Compatibility**

AXAREL 6100 is compatible virtually all metals including aluminum, magnesium, carbon steels, stainless steels, nickel-containing alloys, cobalt-containing alloys, and titanium alloys. The product is also compatible with many types of plastics and elastomers encountered in precision applications.

**Table 3. Effects of AXAREL 6100 on Plastics and Elastomers**

Plastic <sup>1</sup>	Compatibility Rating	Elastomer <sup>2</sup>	Percent Weight Change	Percent Linear Swell
ABS	Compatible	Hypalon®	15	NA
ACETAL (Delrin, Celcon)	Compatible	Nordel®	NA	10+
ACRYLIC (Lucite, Plexiglas)	Compatible	Vamac®	40	15
CELLULOSE	Incompatible	Viton® A	0.6	0
EPOXY	Compatible	Viton® B	0.4	0
PTFE	Compatible	ALCRYN®	10	5
PVDF	Compatible	BUTYL RUBBER	100	30+
IONOMER	Incompatible	NATURAL RUBBER	150	40+
NYLON	Compatible	THIOKOL FA®	-0.1	0
PHENOLIC	Compatible	THIOKOL ST®	NA	0.3
POLYCARBONATE	Compatible	Kalrez®	0	-0.9
PBT	Compatible	NEOPRENE	30	9+
PET	Compatible	HYTREL®	4	NA
POLYACRYLATE	Compatible	SILICONE	50	15
PEK	Compatible	ADIPRENE®	2	0
PEEK	Compatible			
HDPE	Compatible			
POLYIMIDE	Compatible			
POLYETHERIMIDE	Compatible			
POLYPHANYLENE OXIDE	Compatible			
POLYPHENYLENE SULFIDE	Compatible			
POLYSTYRENE	Incompatible			
POLYSULFONE	Compatible			
POLYARYL SULFONE	Compatible			
PVC	Compatible			
CPVC	Compatible			

1. Tests conducted at room temperature, one day immersion.
2. Tests conducted at 50°C, one week immersion.

\*Hypalon, Kalrez, Nordel and Viton are registered trademarks of DuPont Dow Elastomers.; Vamac is a registered trademark of DuPont.

### Disposal

Petroferm recommends contacting your current or local environmental service company for disposal of this product. The suggested method of disposal is fuel blending. AXAREL 6100 has fuel value in excess of 15,000 BTU per pound. Due to a flash point of greater than 140°F (60°C), AXAREL 6100 waste is not classified by the EPA as hazardous.

### Packaging

AXAREL 6100 is available in 5-gallon pails (35 lb/16 kg) and 55-gallon drums (380lb/172 kg). Samples are available in one-quart and one-gallon containers.

<b>Storage</b>	AXAREL 6100 should be stored in the original container, preferably in a cool, ventilated, fire-resistant building.
<b>Shelf Life</b>	The shelf life for this product is indefinite when it is stored in its original, sealed container at room temperature. However, the product should be inspected after the designated date on the product label (twenty-four months from the date of manufacture) prior to customer use.

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