



KLENEDRAW® W-4177

KLENEDRAW® W-4177 is a synthetic, VOC-free product, that does not contain petroleum oil, formulated to lubricate a wide variety of metal forming operations. It absorbs on metal surfaces forming a high strength lubricating film. **KLENEDRAW® W-4177** is effective for multi-stage forming, drawing, deep drawing, roll forming and tube bending applications. When mixed with water at 6:1 or greater, it leaves a minimal residue on metal surfaces after drying.

USAGE

KLENEDRAW® W-4177 should be used as a straight concentrate, or at dilutions up to 20:1 with tap water. It can be applied in minimal amounts by using Jet-Set® airless spray, drip, roller coater or similar methods. **KLENEDRAW® W-4177** is used on ferrous metals, stainless steel, zinc coated metal, and aluminum. It is typically used on material up to 0.100" (2.5 mm) thick. **KLENEDRAW® W-4177**, run at 4:1, will provide rust protection to ferrous parts stored inside for over 90 days. It can be cleaned with warm water or a weak solution of alkaline cleaner such as **TOWERKLENE 42-A** run at a 2% – 5% concentration.

PHYSICAL CHARACTERISTICS

Density	1.03 g/ml	8.59 lbs/gal		
Appearance	Amber Liquid			
Odor	Bland			
Flash Point	None			
Refractive Index	13.6 @ 3:1	10.9 @ 4:1	9.1 @ 5:1	
(freshly diluted)	7.8 @ 6:1	5.4 @ 9:1	4.2 @ 12:1	
Refractive Index Factor	1.84 x RI = Vol %			

BENEFITS

- **Contains No Hazardous Ingredients**
- **Has No Volatile Organic Compounds (VOC's)**
- **Does Not Contain Chlorine, Sulfur, or Phosphorous**
- **Has Excellent Rust Protection for Inside Storage**
- **Cleans Easily In Low Temperature Water Base Solutions**
- **Safe To Welded Through Without Cleaning**
- **Can Replace Vanishing Oil in Many Instances**
- **Mixes Easily With Water**
- **Is Environmentally Friendly**

TECHNICAL SUPPORT

This is a Proprietary product. TOWER wants to assist you in evaluation and selection of suitable products. We urge you to take advantage of this service. This information sheet and TOWER's assistance, however, are not a substitute for your own testing and evaluation.