MULTI-USE PRODUCT

TECHNICAL DATA

PHYSICAL CHARACTERISTICS

- **Appearance: Slightly cloudy**
- **Colour: Light amber**
- **Odour: Slight, characteristic odour**
- **Specific Gravity: 0.80 at 25°C**
- **Viscosity: (ASTM D445) 2.5 cSt at 40°C**
- **Flashpoint (minimum): 43°C closed cup**
- **Percent Non-volatile (minimum): 30% by weight**
- **Percent Volatile (maximum): 70% by weight aliphatic petroleum distillate**
- **Pour Point: Below -73°C**
- **Coverage: 14m² to 24m² per litre**
- **Boiling Point (Initial): 149°C (minimum)**
- **Weight, applied coating: 1.7 x 10^{-3} kg/m²**
- **Thickness: 0.0025mm to 0.0076mm**

PROPERTIES: CORROSION PROTECTION

Tested on freshly sanded mild steel panels

EXPOSURE	RESULTS
Salt Spray (ASTM B117)	**0% rust after 72 hours**

Under actual conditions the duration obtained using WD-40 will vary with the type of material being protected and the conditions of exposure. Generally, on mild steel the protection under various will be approximately as follows:-

1. Covered or indoor storage 1 year or longer
2. Protected exterior storage 6 months to 1 year
3. Normal exterior exposure 30 to 60 days
4. Severe exterior exposure 15 to 30 days (on or very near the beach, subject to high humidity, salt spray and salt fog). If longer protection is desired, WD-40 should be lightly reapplied when necessary.

LUBRICATION: DYNAMIC COEFFICIENT OF FRICTION

Tested on Heat-treated 4340 steel with normal blue oxide film against itself lubricated with WD-40

BEARING PRESSURE	COEFFICIENT
1,000 kPa	**0.112**
5,000 kPa	**0.113**
10,000 kPa	**0.121**
15,000 kPa	**0.131**
20,000 kPa	**0.138**
30,000 kPa	**0.146**



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ELECTRICAL

Dielectric strength ASTM D-877 38,000 V. per 2.5mm. Contact resistance ASTM B-182 modified.

	BARE CONTACTS	WD-40 TREATED CONTACTS	CONTACT RESISTANCE OF FILM
before cycling	**0.0066**	**0.0083 ohm**	**0.0017 ohm**
after 5 cycles	**0.0067**	**0.0085 ohm**	**0.0018 ohm**
after 100 cycles	**0.0069**	**0.0086 ohm**	**0.0017 ohm**
after 1,000 cycles	**0.0074**	**0.0085 ohm**	**0.0011 ohm**
after 20,000 cycles	**0.0083**	**0.0098 ohm**	**0.0016 ohm**

EFFECT ON MATERIALS

GENERAL:
Nearly all materials react to WD-40 as they would to high grade aliphatic petroleum spirits with the same exposure, i.e., spray, quick dip or prolonged immersion. WD-40 contains no silicone, PTFE or chlorofluoracarbons.

RUBBER:
No visible effects on surface of various types of rubber sprayed with WD-40. Certain types of rubber will swell upon prolonged immersion in WD-40.

HIGH STRENGTH STEELS: (for hydrogen embrittlement)
Certified SAFE according to the Lawrence Hydrogen Effusion Test.

FABRICS:
The following fabrics were exposed to WD-40 with no effect, expect slight staining which was readily removed with naphtha or dry cleaning solvent: Nylon, Orlon, Wool, Dacron, Cotton.

PAINTED SURFACES:
Many types of paint on various surfaces have been exposed to WD-40 with no effect. Wax polishes and certain wax coatings may be softened by WD-40.

PLASTICS:
The following plastics were immersed in WD-40 for 168 hours with no visible effects:

- Polyethylene
- Formica
- Epoxy
- Delrin
- Polypropylene
- Acrylic
- VinylTeflon
- Polyester
- Nylon

Clear polycarbonate and polystyrene may stress craze or crack in contact with WD-40.

APPLICATION

- Spray
- Brush
- Dip

NOTE: Application of permanent coatings over WD-40: Best results will be obtained when the surface is cleaned. Mineral spirits, lacquer thinner, vapour degreasing or alkaline cleaner are suitable.

