

T.C. 1893 Drawing Compound

PRIMARY APPLICATION

T.C. 1893 drawing compound is a non-pigmented oil base lubricant used on steel, stainless steel, aluminum, and copper during deep drawing, forming, stamping, punching, blanking, swaging, and tube drawing operations. The high load-carrying capacity of the lubricating film permits heavy-duty deep drawing without gouging or tearing. It also leaves steel work surfaces temporarily protected with a rust-inhibiting film. T.C. 1893 can be easily applied by conventional means and can be easily removed by a mildly alkaline cleaner, such as T.C. 850-CW or by an iron phosphate with good cleaning ability, such as T.C. 625 LW. It has a high flash point and contains no free sulfur or chlorine containing compounds.

ADVANTAGES

- High load-carrying capacity for deep drawing operations.
- Heavy-duty performance without corrosive ingredients.
- Keeps tools cool and clean - eliminates excessive build-up of compound on dies.
- A thin film performs effectively and provides economical coverage.
- Provides temporary rust protection on steel work surfaces.
- Lubricating film does not irritate skin.

APPLICATION PROCEDURE

T.C. 1893 is normally applied at full strength by dipping, brushing, swabbing, or roll coating. If desired, the material can be diluted with oil or high flash petroleum solvents. Additions of oil or solvent up to 10% by volume of T.C. 1893 are sufficient. Recommended operating temperatures are from ambient to 120°F (49°C).

EFFECT ON METALS

100% by volume, 75°F (24°C), 48 hours

<u>Metal</u>	<u>Inches/Year</u>	<u>Millimeters/Year</u>
Steel (1010)	0.000	0.000
Stainless Steel (304)	0.000	0.000
Stainless Steel (316)	0.000	0.000
Aluminum (3003)	0.000	0.000
Brass	0.000	0.000
Copper	0.000	0.000
Zinc	0.000	0.000
Magnesium	0.000	0.000

CHARACTERISTICS

Chemical constituents	Blend of oil, corrosion inhibitors, fatty derivatives
Physical form	Liquid
Color	Dark amber
Odor	Oily
Bulk density	7.9 pounds/gallon
Specific gravity	0.943 @ 68°F (20°C)
Biodegradable	Yes
Phosphate-free	Yes
Flash point	>400°F
pH	Not applicable
Viscosity	1050 ± 100 cps, Brookfield, Spindle #2 12 rpm
Rinseability	Not applicable
Recommended diluent	Oil or solvent (normally used at full strength)

SAFETY AND HANDLING PRECAUTIONS

T.C. 1893 is a petroleum base product. Direct contact with eyes causes irritation. Prolonged contact with skin may cause irritation. It is harmful if swallowed. Wash thoroughly after handling. Keep product away from heat, sparks, open flames, and strong oxidants.

First Aid For eyes: Flush with plenty of water for at least 15 minutes; seek medical attention if irritation persists. For skin: Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. If swallowed, give water or milk to drink and contact a physician.

DISPOSAL

T.C. 1893 is normally consumed in use. When removed in subsequent cleaning operations, the spent cleaning solution should be disposed of in accordance with Federal, State and Local regulations. Oils may have to be split out before discharging.

STORAGE

High temperature	No adverse effect
Low temperature	No adverse effect
Prolonged	No adverse effect

Special Instructions Store at moderate temperatures out of direct sunlight. Keep container closed when not in use.