

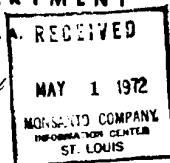


Organic Chemicals
MONSANTO CHEMICAL COMPANY
OVERSEAS DIVISION



SALES DEPARTMENT

ST. LOUIS 4, MISSOURI, U. S. A.



Saving Industry Which Saves Manhood

ORTHODICHLOROBENZENE

BULLETIN NO. EX-44

53-03-24

Monsanto ORTHODICHLOROBENZENE is a clear, volatile and non-flammable organic solvent of low toxicity. Its unusual solvent properties combined with insecticidal and phytotoxic activity have led to a diverse array of everyday uses for this interesting compound. Some are described on the next page.

CHEMICAL AND PHYSICAL PROPERTIES

<u>Appearance:</u>	Colorless to pale yellow liquid.
<u>Color:</u>	APHA 40, maximum.
<u>Odor:</u>	Sharp, aromatic
<u>Specific Gravity:</u>	1.305 - 1.313, 15/15°C.
<u>Crystallizing Point:</u>	Minus 7°C., maximum.
<u>Stability:</u>	Stable under all ordinary conditions of storage.
<u>Solubility:</u>	Slightly soluble in alcohol. Miscible in all proportions with Benzene, ether, ethylene dichloride and most petroleum oils and waxes. Can be readily emulsified.
<u>Solvent Action:</u>	Dissolves most oils, waxes and tarry compounds. Dissolves non-ferrous oxides, but does not affect clean metals. Does not dissolve phthalic anhydride resins.

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Distilling Range:

First drop -- 175°C. Minimum.
90% (1cc to 91cc) -- 5°C. range, max.
100% -- 14°C. maximum range.

SOME APPLICATIONS AND USES

As a solvent for greases and tars, ORTHODICHLOROBENZENE is used to:

- 1) degrease (dip tank) metal parts in garages, machine and maintenance shops. Combined with cresylic acid, huge quantities are used by the aircraft and automotive industries for degreasing operations.
- 2) degrease and clean up equipment used in the cosmetic industry. The chemical is mopped or swabbed on the parts to be cleaned. Low toxicity of ORTHODICHLOROBENZENE is valuable here.
- 3) clean tarry and asphaltous insulations from electrical wiring.
- 4) clean carburetors and engine parts during operation in place. For this purpose, the chemical is added to gasoline, or is compounded in proprietary "upper cylinder" lubricant and cleaning preparations and in radiator cleaners.
- 5) "spot" gum, tar and other stains in clothing prior to routine dry cleaning operations. ORTHODICHLOROBENZENE does not evaporate rapidly enough to use as a primary cleaning agent, however.
- 6) remove tars and greases from wool during scouring operations. ORTHODICHLOROBENZENE does not precipitate soap or synthetic detergents and can be readily used in fulling baths.
- 7) clean tarry residues from refinery stills, heat exchangers, etc. ORTHODICHLOROBENZENE has excellent solvent action on stubborn sulfur base gums and staining materials. Nonflammability is another valuable asset of this cleaner and permits use not only around refineries but in lacquer, paint and varnish plants.

As a solvent for nonferrous metallic oxides, ORTHODICHLOROBENZENE, combined with a mild abrasive, is an excellent metal polish which removes tarnish and grease in one operation.

As a fumigant, ORTHODICHLOROBENZENE is used by farmers to sterilize soil by killing both plants and insects. After the chemical has completely evaporated, the soil may be freely cultivated and planted. ORTHODICHLOROBENZENE is used to kill beetles, grubs and peach tree borers. It is an effective termite control agent. (Ask for Monsanto Technical Bulletin O-13 covering this application)

In tanneries, ORTHODICHLOROBENZENE is used to "doctor" hides to prevent attack by hide beetles, webbing clothes moths and red-legged ham beetles. Treated hides must be kept in closed rooms to prevent the escape of vapors.

Sprayed in garbage containers and collection pits, ORTHODICHLOROBENZENE reduces odor by preventing putrefaction and repelling flies.

As a nonflammable penetrant, ORTHODICHLOROBENZENE improves the action of paints, leather dyes, and either liquid or paste shoe polishes.

For further information about this product, write to:

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PCM/md
3/24/53

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