



Product Information

Wondermask® WsOL

Water Soluble Mask
2204

Introduction

Wondermask® WsOL is a 100% water soluble mask designed specifically for use in Closed Loop and In-Line aqueous cleaning systems. Wondermask® WsOL dries rapidly, cures within 15 to 30 minutes and is a non-stringing solder mask that dissolves quickly in the water cleaning cycle. Wondermask® WsOL is safe on precious metals, sensitive contacts and is excellent for protecting plated through holes and contact surfaces.

Features / Benefits

- Designed for Closed Loop/In-Line Systems
- 100% Water Soluble
- Lead-Free Compatible
- Safe on Ion Bed & Filters

Chemical Components

Methanol.....	(67-56-1)	45-50%
Non-Ionic Proprietary Material		35-45%
Colloidal Silicon Dioxide.....	(7631-86-9)	5-10%
Surfactants		1-5%
Dye		<1%

Application	Cure Type	Cure Time	Removal	Viscosity	Suggested Thickness	Thinner
Hand	Thermal	30 min @65°C	Soluble in Water 49°C or Higher	11,500-15,500 cps	5-30 mils	Methanol

Environmental Policy

Techspray® is committed to developing products to ensure a safer and cleaner environment. We will continue to meet and sustain the regulations of all federal, state and local government agencies.

Packaging and Availability

Wondermask® WSOL may be ordered in the following container sizes:

2204-8SQ	8 Ounce Squeeze Bottle
2204-G	1 Gallon in Plastic
2204-5G	5 Gallon in Plastic

MATERIAL SAFETY DATA SHEET

Finished Product

MSDS Ref. No: 2204-8SQ

Wondermask WSOL

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Wondermask WSOL**PRODUCT DESCRIPTION:** Wave solder process masking agent**PRODUCT CODE:** 2204/CAN-8SQ

MANUFACTURER

Techspray, L.P.

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS#</u>	<u>EINECS#</u>
Methanol	40 - 50	67-56-1	200-659-6
Acetic Acid Ethenyl Ester, Polymer with 1-Ethenyl-2-Pyrrolidinone	15 - 18	25086-89-9	
2-Pyrrolidinone, 1-Ethenyl-, Homopolymer	20 - 25	9003-39-8	
Silica, amorphous	3 - 6	7631-86-9	2315454
1,2,3- Propanetriol	1 - 3	56-81-5	200-289-5
Non-ionic Surfactant	3 - 5		
Solvent Refined, Hydrotreated Middle Distillate	<1	64742-46-7	
Dye (Non-hazardous)	<1		

EEC LABEL SYMBOL AND CLASSIFICATION

SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

INGESTION: If swallowed, do not induce vomiting. If conscious and alert, give two glasses of water. Seek medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: 13°C (55°F)TAG CC

FLAMMABLE LIMITS: 7.3 to 36.0

GENERAL HAZARD: Vapors can travel to a source of ignition and flash back.

EXTINGUISHING MEDIA: Water, foam, dry chemical, carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS: Smoke, fumes and oxides of carbon.

FIRE FIGHTING PROCEDURES: Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb liquid and place in sealed container for disposal. Vapors can travel to an ignition source.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: NEVER FLUSH TO SEWER.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Wash thoroughly after handling. Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Store in a cool dry place.

HANDLING: Use with adequate ventilation.

STORAGE: Store in a cool place in original container and protect from sunlight. Keep away from heat and flame.

STORAGE PRESSURE: Store at local atmospheric pressure.

STORAGE TEMPERATURE: Store in a cool place below (120) F (49) C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		<u>EXPOSURE LIMITS</u>					
		<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>Supplier OEL</u>	
		<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>
Methanol	TWA	S 200 ^[1]	260	S 200	262	NL	NL
	STEL	250	310	250	328	NL	NL
2-Pyrrolidinone, 1-Ethenyl-, Homopolymer							
1,2,3- Propanetriol	TWA	NL ^[2]	10*,5^	10	NL	NL	NL
	STEL	NL	NL	NL	NL	NL	NL
Solvent Refined, Hydrotreated Middle Distillate	TWA				5 ^[3]		
Dye (Non-hazardous)							

OSHA TABLE COMMENTS:

1. S = Skin
2. * = Total dust, ^ = Respirable fraction
3. Exposure Limit applicable for vapor or mist only

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

SKIN: The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection.
Viton, Solvex, Butyl, Buna, Neoprene.

RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

WORK HYGIENIC PRACTICES: Wash hands before eating and wash before reuse.

OTHER USE PRECAUTIONS: Emergency shower and eyewash facility should be in close proximity.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Alcohol odor

APPEARANCE: Gel-like.

COLOR: Pink/red.

pH: Not Applicable

PERCENT VOLATILE: 50

BOILING POINT: Not Applicable

FREEZING POINT: Not Applicable

SOLUBILITY IN WATER: Fully miscible

DENSITY: 1.03 at 25°C

VISCOSITY: 11500 to 13500Centipoise at 25°C

(VOC): 399 g/L (non-exempt VOC)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Heat, flames, ignition sources, and incompatibles.

STABILITY: Stable under normal conditions.

POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide and carbon Monoxide may form when heated to decomposition.

INCOMPATIBLE MATERIALS: Strong acids and alkalis, reactive metals and strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: 15800 mg/kg (rabbit)

ORAL LD₅₀: 5628 mg/kg (rat)

INHALATION LC₅₀: 64000 ppm, 4-hour

EYE EFFECTS: Mixture is a moderate eye irritant.

SKIN EFFECTS: Causes irritation to skin.

CARCINOGENICITY:

IARC: Polyvinylpyrrolidone .

TERATOGENIC EFFECTS: Information for Methanol: In an inhalation developmental toxicity study, rats were exposed 6hrs./day to 5000 - 20000 ppm vapors. A significant teratogenic response was seen at 20000 ppm. Fetotoxicity was noted at 10000 ppm, but not at 5000 ppm.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: There is limited information available on the environmental fate and effects of this material. The primary environmental concern for release is the impact on aquatic and terrestrial species. Due care should be taken to avoid the accidental release of this material into the environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Federal, State, and Local laws governing disposal of materials can differ. Ensure compliance with proper authorities before disposal.

GENERAL COMMENTS: Dispose of in a manner consistent with federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: CONSUMER COMMODITY ORM-D

UN/NA NUMBER: NA

PACKING GROUP: NA

AIR (ICAO/IATA)

PROPER SHIPPING NAME: CONSUMER COMMODITY ID8000

UN/NA NUMBER: ID8000

PACKING GROUP: NA

VESSEL (IMO/IMDG)

PROPER SHIPPING NAME: Flammable Liquid, toxic, N.O.S. (Contains methanol)

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN1992

PACKING GROUP: II

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: IMMEDIATE / DELAYED

FIRE: YES ACUTE: YES CHRONIC: YES

313 REPORTABLE INGREDIENTS: Methanol

TITLE III NOTES: Not listed as an Extremely Hazardous Substance.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: Methanol (#67-56-1)

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Methanol (#67-56-1)

CERCLA RQ: 5000 lbs

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components of this product are either listed or exempt from listing in the TSCA inventory.