

SAFETY DATA SHEET

1. Product and Company Identification

Product Name: SP MNP

Product Code: SPMNP

Chemical Type: Solvent Blend

Product Use: The material is applied as supplied with brush, submersion, flush and/or spray.

Manufacturer: Chemical Solvents Inc.

Revision Date: 12/21/2015

Address: 3751 Jennings Rd.
Cleveland, Ohio 44109

Emergency: Chemtrec (800)424-9300

Phone: (800) 362-0693

NOTE: The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Chemical Solvents Inc provides this information as guidance for providing personal protection to your employees. The user has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. The user must meet all applicable safety and health standards. Chemical Solvents Inc provides this information as guidance for providing personal protection to your employees.

2. Hazards Identification

Classification of the product

Flam. Liq. 4 Flammable liquid

Skin Corr./Irrit. 1B Skin corrosion/irritation

Eye Dam./Irrit. 1 Serious eye damage/eye irritation

Repr. 1B (unborn child) Reproductive toxicity

STOT SE 3 (irritating to respiratory system) Specific target organ toxicity — single exposure

Label elements



Pictogram:

Signal Word: Danger

Hazard Statement:

H227 Combustible liquid.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H360 May damage the unborn child.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage

Precautionary Statements :

(Prevention):

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P271 Use only outdoors or in a well-ventilated area.

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P260 Do not breathe dust/gas/mist/vapors.

P202 Do not handle until all safety precautions have been read and understood.
P264 Wash with plenty of water and soap thoroughly after handling.
(Response):
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P352 IF ON SKIN (on hair): Wash with plenty of soap and water.
P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.
P362 + P364 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.
(Storage):
P233 Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
(Disposal):
P501 Dispose of contents/container to hazardous or special waste collection point.

Hazard(s) not otherwise classified (HNOC): Peroxide former.

2. Composition / Information on Ingredients

Ingredients	CAS #	Percent	Exposure Limits
N-Methyl Pyrrolidone	872-50-4	40-50 %	OSHA (TWA)- N/E ACGIH (TLV)- N/E
Ethylene Glycol	107-21-1	0-5%	OSHA (TWA)- 50 ppm ceiling ACGIH (TWA)- 39.4 ppm ceiling
Diethylene Glycol Butyl Ether	112-34-5	45-55%	OSHA (TWA)- N/E ACGIH (TLV)- N/E
Surfactants Mix		1-10%	Not Established
Tetramethylammonium hydroxide	75-59-2	1-5%	OSHA (TWA)- N/E ACGIH (TLV)- N/E

4. First Aid Measures

Eye Contact: Flush with warm water for 15 minutes. Seek medical attention.

Skin Contact: Wash with soap and water. Remove any contaminated clothing and launder before reusing. If irritation persists, seek medical attention.

Inhalation: Remove exposed individual to fresh air, protecting yourself. Restore breathing if necessary. Contact a physician.

Ingestion: Immediately give the person two large glasses of water. Do not induce vomiting. Get medical attention immediately. **DO NOT GIVE AN UNCONCIOUS OR CONVULSING PERSON ANYTHING BY MOUTH!**

5. Fire Fighting Measures

Flash Point: >200 F (TCC)

Extinguishing Media: Dry chemical, carbon dioxide, halon, or foam is recommended. Water spray may be used to cool containers or structures. Halon may decompose into toxic materials and carbon dioxide will displace oxygen, take proper precautions when using these materials.

Unusual Fire & Explosion Hazards: This material may be ignited by extreme heat, sparks, flames or other ignition sources (static electricity). Vapors are heavier than air and will collect in low areas (sewers) or travel considerable distances. If containers are not cooled in a fire, they may rupture and ignite.

Special Fire Fighting Procedures: Emergency responders should wear self-contained breathing apparatus. Wear other protective gear as conditions warrant. Keep unauthorized people out and try to contain spills or leaks if it can be done safely. Material will float on water, avoid spreading the fire.

6. Accidental Release Measures

Spill or Leak Instructions

Contain spill with dikes of soil or nonflammable absorbent to minimize contaminated area. Avoid run-off into storm sewers and ditches leading to waterways. If required, notify state and local authorities. Place leaking containers in well-ventilated area. Clean up small spills by using a nonflammable absorbent or flushing sparingly with water. Contain larger spills with nonflammable diking or absorbent. Clean up by vacuuming or sweeping.

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Assess the spill situation, as the spill may not evolve large amounts of hazardous airborne contaminants in many outdoor spill situations. It may be advisable in some cases to simply monitor the situation until spilled product is removed.

7. Handling and Storage

Handling: FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN

Use in accordance with good work place practices. Use with adequate ventilation. Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Avoid breathing vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Decontaminate soiled clothing thoroughly before re-use. Destroy contaminated leather clothing.

Empty containers may contain residues from the product. Treat empty containers with the same precautions as the material last contained. Do not cut, weld or apply heat to empty containers.

Storage:

Store in a cool, dry area, away from heat or direct sunlight. Keep containers closed when not in use. Do not store with incompatible materials

8. Exposure Controls / Personal Protection

Protective Equipment: Use synthetic gloves if necessary to prevent excessive skin contact. Do not wear contacts and always use ANSI approved safety glasses or splash shield.

Engineering Controls: General or dilution ventilation is frequently sufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Use a NIOSH approved respirator if ventilation is not adequate to maintain exposures below TLV levels.

Respiratory Protection:

Based on workplace contaminant level and working limits of the respirator, use a respirator approved by NIOSH. The following is the minimum recommended equipment for an occupational exposure level.

For concentrations > 1 and < 10 times the occupational exposure level: Use air-purifying respirator with full facepiece and organic vapor cartridge(s) or air-purifying full facepiece respirator with an organic vapor canister or a full facepiece powered air-purifying respirator fitted with organic vapor cartridge(s). The air purifying element must have an end of service life indicator, or a documented change out schedule must be established. Otherwise, use supplied air.

For escape: Use self-contained breathing apparatus with full facepiece or any respirator specifically approved for escape.

Other Suggested Equipment: Eye wash station and emergency showers should be available. Spill containment equipment should be available.

Discretion Advised: Chemical Solvents Inc. takes no responsibility for determining what measures are required for personal protection in any specific application. The general information should be used with discretion.

Exposure guidelines:

Ingredients	CAS #	Percent	Exposure Limits
N-Methyl Pyrrolidone	872-50-4	40-50 %	OSHA (TWA)- N/E ACGIH (TLV)- N/E
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9. Physical and Chemical Properties

Form	liquid
Colour	colourless - straw
Odor	Characteristic Ammonia

pH	20 °C; >10
Melting point/range	Not Available
Boiling point/range	228 - 233 °C; 1.013 hPa Glycol ether
Flash point	ca. 105 °C; DIN 51758
Ignition temperature	ca. 230 °C; DIN 51794
Lower explosion limit	0,7 %(V)
Upper explosion limit	5,3 %(V)
Vapour pressure	0,02 hPa; 20 °C
Density	0,952 - 0,955 g/cm ³ ; 20 °C
Water solubility	20 °C; completely miscible
Partition coefficient (n-octanol/water)	log Pow: 0,56 Glycol Ether
Viscosity, dynamic	Not Available

10. Stability and Reactivity

Stability: Stable

Conditions to Avoid: Heat, spark, and open flame

Incompatibility: Strong-Oxidizing Agents, reactive metals

Hazardous Decomposition: Combustion will produce Carbon Monoxide, Carbon Dioxide and nitrogen-oxygen compounds.

Hazardous Polymerization: Will not occur

11. Toxicological Information

Component Toxicological Information:

N-Methyl Pyrrolidone

Inhalation. LC50:	not determined.	
Oral LD50:	3914 mg/kg – rats	5130 mg/kg mice
Skin absorption LD50:	not determined	

N-Methyl Pyrrolidone (NMP) has been shown to produce reproductive and developmental effects at very high, maternally toxic doses, in experimental animals. These observations are not thought to be relevant to occupational usage. NMP was reported to be fetotoxic and to increase the incidence of skeletal abnormalities when administered dermal to rats during gestation at very high, maternally toxic doses. NMP was not fetotoxic or teratogenic in rats exposed to NMP vapors up to 0.36 mg/l during gestation. NMP was reported to cause aneuploidy in saccharomyces, but is not mutagenetic in the Ames test.

Tetramethylammonium hydroxide

The following data has been reported in the RTECS database:

Subcutaneous-mouse LDLo = 19 mg/kg

Intravenous-rabbit LDLo = 1 mg/kg

Skin-guinea pig LD50 = 25 mg/kg (test conducted with solid tetramethylammonium pentahydrate, which is equivalent to 50% tetramethylammonium hydroxide)

Parenteral-frog LDLo = 5 mg/kg

unreported-frog LDLo = 1515 ug/kg

Results from an experimental study in rats demonstrated lethality following one or more skin applications of tetramethylammonium hydroxide at dose levels of 30 mg/kg and higher.

TMAH concentrations in excess of 0.25% have been shown to cause dermal irritation in experimental animals. Not identified as an OSHA, NTP or IARC carcinogen. No data available indicating any carcinogenic activity.

Ethylene Glycol

LD50 (Oral) Rat 5890 - 13,400 MG/KG BWT

NOAEL Rabbit > 3549 MG/KG BWT (SKIN)

Irritation

Skin May be irritating to the skin. Not expected to be a sensitizer. No significant signs or symptoms indicative of any health hazard are expected to occur as a result of skin absorption exposure.

Eye May cause minor eye irritation. Effects of eye irritation are reversible.

Sensitization

Not expected to be a sensitizer.

Target Organ Effects

Central nervous system effects. Blood (metabolic acidosis). Respiratory system. Cardiovascular system. Kidneys.

Repeated Dose Toxicity

If exposures are sufficiently high to cause accumulation of calcium oxalate crystals, kidney pathology may occur. In male rats, crystal nephropathy has been seen after dietary administration of 500 mg/kg/day bwt for 16 weeks, whereas no effects were seen in rats that ingested 200 mg/kg/day bwt for 2 years or in several animal species that inhaled 12 mg/m³ for 3 months. Human exposures at occupational relevant concentrations are unlikely to cause crystal nephropathy.

Reproductive Effects

No evidence of adverse effects on reproductive organs or fertility in rats and rabbits have occurred from ethylene glycol exposure. Mice exposed to doses considerably higher than those associated with developmental effects or kidney effects in rats exhibited reduced number of litters and smaller litters. No reproductive effects expected from human exposures.

Developmental Effects

Doses of ethylene glycol that result in high levels of the metabolite glycolic acid induce developmental/teratogenic effects in rats and mice, although at doses greater than those associated with kidney effects in rats. Human exposure is not expected to generate sufficient levels of glycolic acid; therefore, no developmental effects are expected in humans.

Genetic Toxicity

Negative for genotoxicity both in vitro and in vivo tests.

Carcinogenicity

Ethylene glycol was not carcinogenic in two year studies in rats and mice. This material is not classified as a carcinogen. Not listed by IARC, NTP, or OSHA.

Other Information

Human acute toxicity has three recognized stages: Stage 1. (0.5 to 12 hours post ingestion) may include inebriation, nausea and vomiting, metabolic acidosis, and CNS depression. Stage 2. (12-24 hours) cardiopulmonary effects include tachycardia, hypertension, severe metabolic acidosis with hyperventilation, hypoxia, congestive heart failure and adult respiratory distress syndrome. Stage 3. (24-72 hours) renal failure. Ethylene glycol may also produce a local irritation effect on the digestive system, and cause pain and bleeding.

Diethylene Glycol Butyl Ether

LD50 (Oral) Rat 5660 MG/KG

LD50 (Oral) Mouse 2400 MG/KG

LD50 (Skin) Rabbit 2700 MG/KG

12. Ecological Information

Tetramethylammonium hydroxide

If neutralized, this material may be biodegradable. No specific information available.

Acute aquatic toxicity testing on a pH neutralized solution of this compound has been shown to be highly toxic to the ceriodaphnia dubia (water flea). Acute aquatic toxicity testing on the Daphnia magna resulted in a 48 hour LC50 of 55.6 mg/l (with 95% confidence limits).

Ethylene Glycol

Terrestrial plant and avian NOEC (No Observed Effect Concentration) data are available upon request.

Acute toxicity to fish

LC50 / 96 HOUR rainbow trout. 22,810 mg/l

LC50 / 96 HOUR fathead minnow 49,000 mg/l

Summary: This material is not classified as harmful or toxic to fish.

Acute toxicity to aquatic invertebrates

EC50 / 48 HOUR Daphnia magna. 41,000 mg/l

EC50 / 48 HOUR daphnia 10,000 mg/l

Summary: This material is not classified as harmful or toxic to invertebrates.

Toxicity to aquatic plants

Toxicity Threshold / 7 DAY blue green algae. 2,000 mg/l

Summary: This material is not classified as harmful or toxic to algae or higher aquatic plants.

Toxicity to microorganisms

Toxicity Threshold / 16 HOUR bacteria. > 10,000 mg/l

Chronic toxicity to fish

LC50 / 12 DAY rainbow trout. 20,403 mg/l

Chronic toxicity to aquatic invertebrates

LC50 / 7 DAY daphnia 30,461 mg/l

13. Disposal Considerations

Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate.

State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste. See Section 9 - Physical and Chemical Properties.

14. Transport Information

Compounds, Cleaning Liquid, 8, NA 1760, PG III

15. Regulatory Information

Environmental Regulations

SARA 311:

Acute health: Yes

Chronic health: No

Fire: No

Sudden release of pressure: No

Reactive: No

SARA 313: Title III of the 1986 Super fund Amendments and Reauthorization Act (SARA) and 40 CFR PART 372.

N-Methyl Pyrrolidone cas# 872-50-4

Ethylene Glycol

All the chemicals used in this product are TSCA listed.
Check with your local regulators to be sure all local regulations are met.

16. Other Information

Hazard ratings This information is intended solely for the use of individuals trained in the NFPA and/or HMIS systems.

NFPA: Health: 3 Flammability: 1 Reactivity: 0

HMIS: Health: 3* Flammability: 1 Reactivity: 0

RATING: 4-EXTREME 3-HIGH 2-MODERATE 1-SLIGHT 0-INSIGNIFICANT

Note:

For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Chemical Solvents Inc makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. This material may be released from gas, liquid, or solid materials made directly or indirectly from it. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards. Possession of an MSDS does not indicate that the possessor of the MSDS was a purchaser or user of the subject product.

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