



Whitford Corporation, Box 2347, West Chester, PA 19380-0110 • Tel: (610) 296-3200 • Fax: (610) 647-4849

HMIS: H=2, F=2, R=0, PPE=J

MATERIAL SAFETY DATA SHEET
for
COATINGS, RESINS, and RELATED MATERIALS

SECTION I - PRODUCT IDENTIFICATION

Corporate Address:
33 Sproul Road
Frazer, PA 19355

Trade Name & Synonyms:
WHITFORD

Emergency Telephone Number: (610) 296-3200
24 Hours a Day

Formula:
SOLVENT 27

Telex: N/A

P.C. Number: **D2746**

FAX: (610) 647-4849

Date of Preparation: 15 January 2004

Supercedes: None

**IMPORTANT: BEFORE USING WHITFORD SOLVENT 27 (D2746),
HAVE ALL PROCESSING PERSONNEL READ THIS DOCUMENT!**

SECTION II - HAZARDOUS INGREDIENTS AND OCCUPATIONAL EXPOSURE LIMITS

Chemical(s) with CAS RN and vapor pressure (if applicable)	OSHA PEL	ACGIH TLV	Manufacturer's Recommendation
N-METHYLPYRROLIDONE (NMP) 872-50-4 0.3 mm Hg at 20 C	Not established	Not established	No recommendation
SOLVENT NAPHTHA HEAVY AROMATIC 64742-94-5 3.0 mm Hg at 25 C	Not established	Not established	TWA = 100 ppm
NAPHTHALENE 91-20-3	TWA = 10 ppm, 50 mg/m ³ . STEL = 15 ppm, 75 mg/m ³ .	(skin) TWA = 10 ppm STEL = 15 ppm	No recommendation

SECTION III - PHYSICAL DATA

Appearance	Clear liquid.
Boiling point (range) . .	176 TO 210 degrees C
Vapor density	Heavier than air
Evaporation rate	Slower than ether
Specific gravity (H ₂ O = 1)	0.90
Percent volatile by volume	100.0%
Volatile organics (VOC)	7.99 Lbs VOC/Gal less water (960.4 Gms/Lt)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Lower Explosive Limit (%): 1.00

Flash point (Method Used): 82 degrees C (Setaflash)

Extinguishing Media:

Use carbon dioxide (CO₂), "alcohol" foam, dry chemical, or water spray/water fog extinguishing systems.

Special Fire Fighting Procedures:

Firemen and emergency responders: wear full turnout gear or Level A equipment including positive-pressure, self-contained breathing apparatus (SCBA). If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with a water wash-down after fire and smoke exposure.

Unusual Fire and Explosion Hazards:

The product vapor is heavier than air and may travel a considerable distance to a source of ignition and flashback.

SECTION V - HEALTH HAZARD DATA

Primary Route(s) of Entry and Exposure:

Inhalation: Yes Skin absorption: No Ingestion: Yes Skin or eye contact: Yes

Carcinogenicity: The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing).

<u>Chemical</u>	<u>Reference</u>	<u>Category</u>
None	Not applicable	Not applicable

Effects of Overexposure, N-METHYLPYRROLIDONE (NMP):

Inhalation -	No significant signs or symptoms indicative of any adverse health hazard are expected to occur as a result of inhalation exposure.
Skin contact -	NMP is a moderate skin irritant and may cause delayed skin irritation. Human experience has demonstrated redness, cracking and blistering of skin through repeated or prolonged contact.
Skin absorption -	No significant signs or symptoms indicative of any health hazard are expected to occur as a result of skin absorption exposure.
Eye contact -	Eye contact with NMP may cause moderate eye irritation including burning sensation, tearing, redness or swelling.
Ingestion -	Ingestion of NMP may be a slight health hazard if ingested in large quantities.
Systemic & other effects -	No relevant human data found.
Supplemental health information -	NMP was reported to effect pregnancy and/or fetal development in laboratory animals. Recently completed studies and an independent, expert review of previous studies confirm that NMP is not a mutagen, teratogen, carcinogen, or reproductive toxin. Supporting documentation is available upon request.

Effects of Overexposure, SOLVENT NAPHTHA HEAVY AROMATIC:

Inhalation -	Excessive inhalation of vapors may cause nasal and respiratory irritation, central nervous system effects including dizziness, weakness, fatigue, nausea, headache, and possible unconsciousness, and even asphyxiation.
Skin contact -	Prolonged or repeated contact may cause moderate irritation, defatting, and dermatitis.
Skin absorption -	No data found.
Eye contact -	May cause severe irritation, redness, tearing, and blurred vision.
Ingestion -	May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.
Systemic & other effects -	Aspiration of material into the lungs, due to vomiting, may cause chemical pneumonitis, which can be fatal.
Supplemental health information -	Animal toxicological data is available upon request.

Effects of Overexposure, NAPHTHALENE:

Inhalation -	High vapor concentrations (greater than 1000 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.
Skin contact -	Prolonged or repeated contact may cause moderate irritation, defatting, and dermatitis.
Skin absorption -	No data found.
Eye contact -	Slightly irritating but does not injure eye tissue.
Ingestion -	Small amounts of Naphthalene aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.
Systemic & other effects -	No data found.
Supplemental health information -	No data found.

Emergency & First Aid Procedures:

Inhalation - If overcome by product vapors, mists, or processing fumes, remove the person from exposure immediately; call a physician. If breathing is irregular or stopped, start resuscitation. Administer oxygen if a qualified operator is available.

Skin contact - In case of skin contact, remove contaminated clothing. Flush the skin with large amounts of water, then wash the skin with soap and water.

Eye contact - In case of eye contact, flush the eyes with water for fifteen (15) minutes. If contact lenses are worn, quickly remove them, then flush the eyes with water. Have a physician examine the eyes.

Ingestion - If material is ingested, seek immediate medical attention. If vomiting occurs spontaneously, keep the head below the hips to prevent aspiration of liquid into the lungs.

SECTION VI - REACTIVITY DATA

Stability:

- stable

Incompatibility (Materials to Avoid):

- strong oxidizing agents, acids, and alkali/base/caustic solutions

Hazardous Decomposition Products:

- oxides of carbon
- oxides of nitrogen

Hazardous Polymerization:

- will not occur

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:

Spill supervisor - Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Advise authorities if the product has entered or may enter, sewers, watercourses, or extensive land areas.

Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings. Use an adsorbent like sand, earth, or clay for most Xylar coatings and Ultralon DCO Acid. (Use an adsorbent if the product contains chromic acid and/or phosphoric acid.)

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes.

Label the waste container. Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

Waste Disposal Method:

As the US EPA, state, regional, and other regulatory agencies may have jurisdiction over the disposal of your facility's hazardous waste, it is incumbent upon you, the hazardous waste generator, to learn of and satisfy all the requirements which affect you. Dispose of the hazardous waste at a properly licensed and permitted disposal site or facility. Ensure conformity to all applicable hazardous waste disposal regulations.

The US EPA Hazardous Waste Numbers which follow are applicable to this unadulterated product if the product enters the "waste stream." Refer to Title 40 of the Code of Federal Regulations, Part 261 (40 CFR 261). This part of the Code identifies solid wastes which are subject to regulation under various sections of the Code and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA).

None

SECTION VIII - SAFE HANDLING & USE INFORMATION

Respiratory Protection:

Respiratory protection may not be needed if the local exhaust is sufficient to maintain levels of hazardous ingredients below occupational exposure limits. If needed, use a NIOSH/MSHA approved respirator equipped with organic vapor cartridges and high-efficiency, particulate air (HEPA) filters.

Do not use respirators beyond their capabilities. For emergencies and unknown concentrations, use supplied-air respiratory protection or a positive-pressure, self-contained, breathing apparatus (SCBA).

Ventilation:

Use only with adequate ventilation, i.e., ventilation in compliance with occupational exposure limits. Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the workplace.

Local Exhaust:

Local exhaust is recommended to ensure adequate ventilation.

Mechanical (General):

Use explosion-proof equipment and good manufacturing practice.

Special:

Safety showers and eyewash fountains should be readily available to personnel who handle this material. Enforce "No Smoking" rules. Do not use this material in close proximity to unshielded light fixtures.

Protective Gloves:

Wear chemical-resistant gloves (butyl rubber or neoprene). Protective gloves should be inspected frequently and discarded when they exhibit cuts, tears, pinholes, or signs of excessive wear.

Eye Protection:

Wear splash goggles. If extra protection is required, wear a face shield over the splash goggles. Face shields are effective only if worn in addition to splash goggles.

Other Protective Equipment:

Wear a chemical-resistant, butyl-rubber apron and other protective clothing, as deemed appropriate, to avoid skin contact with material.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be Taken When Handling and Storing:

Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust.

Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e., 40 to 95 F (4 to 35 C).

Other Precautions:

Good personal hygiene and good housekeeping are important. Launder contaminated clothing before reuse. Remove contaminated shoes and dry thoroughly before reuse.

Avoid breathing product vapors, spray mist, and residue. Avoid breathing processing fumes. Avoid eye contact. Avoid ingestion. Avoid skin contact.

Spilled material may cause the floor or contaminated area to become slippery.

SECTION X - REGULATORY INFORMATION

FEDERAL REGULATIONS:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CHEMICAL	CAS NUMBER	PERCENTAGE
N-METHYL-2-PYRROLIDONE	872-50-4	55.000000
NAPHTHALENE	91-20-3	4.455000

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs), under the reporting requirements of 40 CFR 61. This product contains the following HAPs:

CHEMICAL	CAS NUMBER	PERCENTAGE
Naphthalene	91-20-3	4.455000

TOXIC SUBSTANCES CONTROL ACT (TSCA): All chemicals in this product appear in the Toxic Substance Control Act Chemical Substance Inventory.

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