



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Material name</b>	<b>BAKER PRS-3000™ Positive Resist Stripper</b>
<b>Version #</b>	05
<b>Revision date</b>	08-26-2011
<b>CAS #</b>	Mixture
<b>Product Codes</b>	<b>J.T.Baker: 6403, 6413</b>
<b>Manufacturer</b>	Avantor Performance Materials, Inc.
<b>Address</b>	3477 Corporate Parkway Suite #200 Center Valley, PA 18034 US
<b>Customer Service</b>	855-282-6867
<b>24 Hour Emergency</b>	908-859-2151
<b>Chemtec</b>	800-424-9300

## 2. Hazards Identification

<b>Emergency overview</b>	<b>DANGER</b>  Combustible liquid and vapor. May burn, but does not ignite readily.  Causes eye burns. Causes skin irritation. Harmful if swallowed. Mist or vapor irritating to eyes and respiratory tract. May cause harm to the unborn child. May cause central nervous system effects. Prolonged exposure may cause chronic effects.
<b>OSHA regulatory status</b>	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Inhalation. Ingestion. Skin contact. Eye contact.
<b>Eyes</b>	Causes eye burns. This product may cause severe irritation, redness, or blurred vision.
<b>Skin</b>	Causes skin irritation. Prolonged or repeated skin contact may result in redness, burning sensation or dermatitis.
<b>Inhalation</b>	Spray mists irritate the respiratory system, and cause coughing and difficulties in breathing. May cause central nervous system effects.
<b>Ingestion</b>	Harmful if swallowed. May have a corrosive effect on the digestive canal. May cause central nervous system effects.
<b>Target organs</b>	Eyes. Skin. Respiratory system. Central nervous system. Reproductive organs.
<b>Chronic effects</b>	May cause harm to the unborn child. May cause central nervous system effects. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
<b>Potential environmental effects</b>	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## 3. Composition / Information on Ingredients

<b>Components</b>	<b>CAS #</b>	<b>Percent</b>
1-METHYL-2-PYRROLIDONE	872-50-4	40 - 60
SULFOLANE	126-33-0	20 - 40
MONOISOPROPANOLAMINE	78-96-6	2.5 - 10

## 4. First Aid Measures

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### First aid procedures

<b>Eye contact</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately. In case of irritation from airborne exposure, move to fresh air. Get medical attention immediately.
<b>Skin contact</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.
<b>Inhalation</b>	Move to fresh air. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

### Notes to physician

Keep victim under observation. Treat symptomatically.

### General advice

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire Fighting Measures

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### Flammable properties

Combustible liquid and vapor. Heat may cause the containers to explode. Vapors may ignite. Vapors may travel considerable distance to a source of ignition and flash back.

### Extinguishing media

**Suitable extinguishing media** Foam. Dry powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Water may be ineffective.

### Protection of firefighters

**Specific hazards arising from the chemical** May burn, but does not ignite readily. Vapor from the solvent may accumulate in container headspace resulting in flammability hazard.

**Protective equipment and precautions for firefighters** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue. Cool containers exposed to flames with water until well after the fire is out.

**Special protective equipment for fire-fighters** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Specific methods** In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers.

**Hazardous combustion products** Carbon monoxide and carbon dioxide. Nitrogen Oxides (NO<sub>x</sub>). Sulfur oxides.

## 6. Accidental Release Measures

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**Personal precautions** Wear appropriate protective equipment and clothing during clean-up. Keep unnecessary personnel away. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

**Methods for containment** ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Dike the spilled material, where this is possible.

## Methods for cleaning up

Use only non-sparking tools. All equipment used when handling the product must be grounded.

Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Dike far ahead of spill for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Collect in a non-combustible container for prompt disposal.

Never return spills in original containers for re-use. Clean surface thoroughly to remove residual contamination. Clean up in accordance with all applicable regulations.

## 7. Handling and Storage

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### Handling

DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Wear appropriate personal protective equipment. Avoid breathing mist or vapor. Do not get in eyes and avoid contact with skin and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment.

### Storage

Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Keep container tightly closed in a cool, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

## 8. Exposure Controls / Personal Protection

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### ACGIH

#### Components

	Type	Value
1-METHYL-2-PYRROLIDONE (872-50-4)	BEL	100.0000 mg/l

### Occupational exposure limits

#### U.S. - WEEL

#### Components

	Type	Value
1-METHYL-2-PYRROLIDONE (872-50-4)	TWA	10.0000 ppm 40.0000 mg/m3

### Engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Explosion proof exhaust ventilation should be used.

### Personal protective equipment

#### Eye / face protection

Chemical goggles and face shield are recommended.

#### Skin protection

Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves.

#### Respiratory protection

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

#### General hygiene considerations

Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical & Chemical Properties

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### Appearance

Clear.

### Color

Light yellow.

### Odor

Amine-like.

### Odor threshold

Not available.

### Physical state

Liquid.

<b>Form</b>	Liquid.
<b>pH</b>	Not available.
<b>Boiling point</b>	356 °F (180 °C)
<b>Flash point</b>	199.4 °F (93 °C) Closed Cup
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	0.03141 kPa
<b>Vapor density</b>	Not applicable.
<b>Specific gravity</b>	1.07
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Complete.
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Decomposition temperature</b>	Not available.

## 10. Chemical Stability & Reactivity Information

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<b>Chemical stability</b>	Stable under normal temperature conditions.
<b>Conditions to avoid</b>	Heat, sparks, flames.
<b>Incompatible materials</b>	Strong oxidizing agents. Alkaline metals. Acids.
<b>Hazardous decomposition products</b>	Carbon dioxide, carbon monoxide, oxides of sulfur and nitrogen.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

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### Toxicological data

<b>Product</b>	<b>Test Results</b>
BAKER PRS-3000™ Positive Resist Stripper (Mixture)	Acute Dermal LD50 Rabbit: 6485 mg/kg estimated Acute Oral LD50 Rat: 3156 mg/kg estimated
<b>Components</b>	<b>Test Results</b>
1-METHYL-2-PYRROLIDONE (872-50-4)	Acute Dermal LD50 Rabbit: 8000 mg/kg Acute Oral LD50 Rat: 3914 mg/kg
MONOISOPROPANOLAMINE (78-96-6)	Acute Oral LD50 Rat: 4.26 g/kg
SULFOLANE (126-33-0)	Acute Dermal LD50 Rabbit: 4009 mg/kg Acute Oral LD50 Rat: 1941 mg/kg
<b>Sensitization</b>	Not a skin sensitizer.
<b>Acute effects</b>	May be harmful if swallowed.
<b>Local effects</b>	Causes eye burns. Causes skin irritation. Mist or vapor irritating to eyes and respiratory tract.
<b>Chronic effects</b>	Prolonged exposure may cause chronic effects. May cause central nervous system effects. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Epidemiology</b>	No epidemiological data is available for this product.
<b>Mutagenicity</b>	Not classified.

<b>Neurological effects</b>	High vapor/aerosol concentrations (attainable only at elevated temperatures) may cause central nervous system effects such as dizziness, drowsiness or headaches. Central and/or peripheral nervous system damage.
<b>Reproductive effects</b>	May damage the unborn child.
<b>Teratogenicity</b>	Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals.
<b>Symptoms and target organs</b>	Severe eye irritation. Moderate skin irritation. Upper respiratory tract irritation. Birth defects. Drowsiness and dizziness.

## 12. Ecological Information

### Ecotoxicological data

Product	Test Results
BAKER PRS-3000™ Positive Resist Stripper (Mixture)	LC50 Fish: 14444 mg/l 96.00 hours estimated
Components	Test Results
MONOISOPROPANOLAMINE (78-96-6)	LC50 Goldfish (Carassius auratus): 210 mg/l 96.00 hours
<b>Ecotoxicity</b>	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Persistence and degradability</b>	Expected to be readily biodegradable.
<b>Partition coefficient (n-octanol/water)</b>	Not available

## 13. Disposal Considerations

<b>Disposal instructions</b>	Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. All wastes must be handled in accordance with local, state and federal regulations.
<b>Contaminated packaging</b>	Since emptied containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

## 14. Transport Information

### DOT

#### Basic shipping requirements:

<b>UN number</b>	NA1993
<b>Proper shipping name</b>	Combustible liquid, n.o.s. (1-METHYL-2-PYRROLIDONE)
<b>Hazard class</b>	Comb liq
<b>Subsidiary hazard class</b>	None
<b>Packing group</b>	III

#### Additional information:

<b>Special provisions</b>	IB3, T1, T4, TP1
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#### Basic shipping requirements:

<b>Labels required</b>	None
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#### Additional information:

<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	203
<b>Packaging bulk</b>	241
<b>ERG number</b>	128

**Notes** This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less.

### IATA

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**15. Regulatory Information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration**

1-METHYL-2-PYRROLIDONE (CAS 872-50-4) 1.0 %

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

1-METHYL-2-PYRROLIDONE (CAS 872-50-4) Listed.

**CERCLA (Superfund) reportable quantity**

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 311 hazardous chemical** Yes

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

1-METHYL-2-PYRROLIDONE (CAS 872-50-4) Listed.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

1-METHYL-2-PYRROLIDONE (CAS 872-50-4) Listed: June 15, 2001 Developmental toxin.

**US - New Jersey Community RTK (EHS Survey): Reportable threshold**

1-METHYL-2-PYRROLIDONE (CAS 872-50-4) 500 LBS

**US - Pennsylvania RTK - Hazardous Substances: Listed substance**

1-METHYL-2-PYRROLIDONE (CAS 872-50-4) Listed.

MONOISOPROPANOLAMINE (CAS 78-96-6) Listed.

SULFOLANE (CAS 126-33-0) Listed.

**Saf-T-Data**

Health: 2 - Moderate (Life)  
Flammability: 2 - Moderate  
Reactivity: 1 - Slight  
Contact: 3 - Severe  
Lab Protective Equip: D - GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES  
Storage Color Code: R - Red (Flammable)

**16. Labeling Info**

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**Label Hazard Warning**

DANGER

Combustible liquid and vapor. Causes eye burns. Causes skin irritation. Harmful if swallowed. Mist or vapor irritating to eyes and respiratory tract. May cause harm to the unborn child. May cause central nervous system effects. Prolonged exposure may cause chronic effects.

**Label Precautions**

Keep away from heat, sparks and flame. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. Keep container closed.

**Label First Aid**

Immediately flush eyes with plenty of water for at least 15 minutes. Immediately flush skin with plenty of water. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Get medical attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance.

**17. Other Information**

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**NFPA ratings**

Health: 2  
Flammability: 2  
Instability: 0

**Disclaimer**

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**Issue date**

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