

# SAFETY DATA SHEET

Revision: 2.0 Date: 05.09.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 2015/830

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## 1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

Product Name P Adhesive  
Chemical Name Mixture  
CAS No. Mixture  
EINECS No. Mixture  
REACH Registration No. None assigned.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s) Adhesives.  
Uses Advised Against For professional users only.

### 1.3 Details of the supplier of the safety data sheet

Company Identification VISHAY MEASUREMENTS GROUP UK LTD  
Stroudley Road  
Basingstoke  
Hampshire  
United Kingdom  
RG24 8FW  
Telephone +44 (0) 1256 462131  
Fax +44 (0) 1256 471441  
E-Mail (competent person) mm.uk@vishaypg.com

### 1.4 Emergency telephone number

(00-1) 703-527-3887  
CHEMTREC

## 2. SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### 2.1.1 Regulation (EC) No. 1272/2008 (CLP)

Flam. Liq. 3; H226  
Asp. Tox. 1; H304  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319  
STOT SE 3; H335  
Repr. 1B; H360D  
STOT RE 2; H373  
Aquatic Chronic 3; H412

### 2.2 Label elements

Product Name P Adhesive  
According to Regulation (EC) No. 1272/2008 (CLP)

Hazard Pictogram(s)



Signal Word(s) Danger

Contains: N-Methylpyrrolidone and Xylene.

Hazard Statement(s)

H226: Flammable liquid and vapour.  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.  
H360D: May damage the unborn child.  
H373: May cause damage to organs through prolonged or repeated exposure.

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H412: Harmful to aquatic life with long lasting effects.

Precautionary Statement(s)

P201: Obtain special instructions before use.  
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P331: Do NOT induce vomiting.

Additional Information

None.

2.3 Other hazards

None.

## 3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Not applicable

3.2 Mixtures

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard classification
N-Methylpyrrolidone	60 - 70	872-50-4	212-828-1	None assigned	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 (SCL: ≥ 10%) Repr. 1B; H360D (SCL: ≥ 5%)
Xylene	20 - 25	1330-20-7	215-535-7	None assigned	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335 STOT RE 2; H373
,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with 4,4'-methylenebis(benzenamine)	< 20	25038-84-0	-	None assigned	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411

For full text of H/P Statements see section 16.

## 4. SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Self-protection of the first aider

Do not breathe vapour. Wear suitable protective clothing. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Avoid all contact.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical advice/attention if you feel unwell. IF exposed or concerned: Get medical advice/attention.

Skin Contact

IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Contaminated clothing should be thoroughly cleaned. If skin

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Eye Contact	irritation occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.
Ingestion	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if eye irritation develops or persists. IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Drink two glasses of water. Do not give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
<b>4.2 Most important symptoms and effects, both acute and delayed</b>	May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May damage the unborn child. May cause damage to organs through prolonged or repeated exposure.
<b>4.3 Indication of any immediate medical attention and special treatment needed</b>	Treat symptomatically.

## 5. SECTION 5: FIREFIGHTING MEASURES

<b>5.1 Extinguishing media</b>	As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray.
Suitable Extinguishing media	
Unsuitable extinguishing media	Do not use water jet. Direct water jet may spread the fire.
<b>5.2 Special hazards arising from the substance or mixture</b>	Flammable liquid and vapour. May decompose in a fire giving off toxic fumes. May decompose in a fire giving off toxic fumes. Ammonia, Ethanol, Oxides of nitrogen and Oxides of carbon. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. Can form explosive mixture with air particularly in empty uncleaned receptacles.
<b>5.3 Advice for fire-fighters</b>	Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

## 6. SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>6.1 Personal precautions, protective equipment and emergency procedures</b>	Ensure adequate ventilation. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapour. Avoid all contact. Use personal protective equipment as required. See Section: 8.
<b>6.2 Environmental precautions</b>	Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body. Prevent liquid entering sewers, basements and workpits; vapour may create explosive atmosphere.
<b>6.3 Methods and material for containment and cleaning up</b>	Ensure full personal protection (including respiratory protection) during removal of spillages. Use non-sparking equipment when picking up flammable spill. Adsorb spillages onto sand, earth or any suitable adsorbent material. Do NOT absorb in saw-dust or other combustible absorbents. Transfer to a container for disposal. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste (2008/98/EEC).
<b>6.4 Reference to other sections</b>	See Section: 8, 13

## 7. SECTION 7: HANDLING AND STORAGE

<b>7.1 Precautions for safe handling</b>	Take precautionary measures against static discharge. Do not use sparking tools. Ensure adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid all contact. Do not breathe vapour. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.
<b>7.2 Conditions for safe storage, including any</b>	Ground/bond container and receiving equipment. Store in a well-ventilated

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<b>incompatibilities</b>	place. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from direct sunlight.
Storage temperature	Ambient. Keep at a temperature not exceeding (°C): 50.
Storage life	Stable under normal conditions.
Incompatible materials	Keep away from: Strong oxidising agents and Strong Alkalis.
<b>7.3 Specific end use(s)</b>	Adhesives.

## 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
N-Methylpyrrolidone	872-50-4	25	103	75	309	WEL
Xylene, o-,m-,p- or mixed isomers	1330-20-7	50	220	100	441	WEL

Note: WEL: Workplace Exposure Limit (UK HSE EH40)

#### 8.1.2 Biological limit value

SUBSTANCE	CAS No.	Biological Limit Value	Biological Guidance Value	Note
N-Methylpyrrolidone	872-50-4	20 mg/g creatinine of 2-hydroxy-N-methylsuccinimide in urine (morning-after-shift; 18 hours), or 70 mg/g creatinine of 5-hydroxy-N-methyl-2-pyrrolidone in urine (2-4 hours after the end of exposure/shift)	-	SCOEL

Source: SCOEL - Scientific Committee on Occupational Exposure Limits (2014) EU Commission Decision 2014/113/EU.

#### 8.1.3 PNECs and DNELs

Not established.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Ensure adequate ventilation or use appropriate containment. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Local exhaust recommended. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Guarantee that the eye flushing systems and safety showers are located close to the working place.

#### 8.2.2 Individual protection measures, such as personal protective equipment (PPE)

General hygiene measures for the handling of chemicals are applicable. Avoid all contact. Do not breathe vapour. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be thoroughly cleaned. Do not eat, drink or smoke at the work place.

Eye/ face protection



Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

Skin protection



Hand protection: Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: Butyl rubber.

Body protection: Wear impervious protective clothing, including boots, lab coat,

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Respiratory protection



Thermal hazards

apron or coveralls, as appropriate, to prevent skin contact.

Work in well ventilated zones or use proper respiratory protection. Open system(s): Wear suitable respiratory protection. A suitable mask with filter type A (EN14387 or EN405) may be appropriate.

Not applicable.

## 8.2.3 Environmental Exposure Controls

Avoid release to the environment.

## 9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Pale yellow viscous liquid.
Odour	Aromatic odour.
Odour threshold	Not available.
pH	Not established.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	29 - 37°C
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable - Liquid.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.03 @ 20°C (H <sub>2</sub> O = 1)
Solubility(ies)	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	6 – 10 Poise @ 25°C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

### 9.2 Other information

Volatile Organic Compound Content (%): 87 - 89

## 10. SECTION 10: STABILITY AND REACTIVITY

10.1 Stability and reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Flammable liquid and vapour. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback.
10.4 Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from direct sunlight. Do not use sparking tools.
10.5 Incompatible materials	Keep away from: Strong Reducing agent/Oxidizing agents and Strong Alkalis.
10.6 Hazardous decomposition product(s)	May decompose in a fire giving off toxic fumes. Ammonia, Ethanol, Oxides of nitrogen and Oxides of carbon.

## 11. SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects (Substances in preparations / mixtures)

#### Acute toxicity

Ingestion

Based upon the available data, the classification criteria are not met.  
Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.

Inhalation

Based upon the available data, the classification criteria are not met.  
Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 20 mg/l.

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Skin Contact	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
Skin corrosion/irritation	Skin Irrit. 2: Causes skin irritation.
Serious eye damage/irritation	Eye Irrit. 2: Causes serious eye irritation.
Respiratory or skin sensitization	Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Based upon the available data, the classification criteria are not met.
Carcinogenicity	Based upon the available data, the classification criteria are not met.
Reproductive toxicity	Repr. 1B: May damage the unborn child.
STOT - single exposure	STOT SE 3: May cause respiratory irritation.
STOT - repeated exposure	STOT RE 2: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Asp. Tox. 1: May be fatal if swallowed and enters airways.
11.2 Other information	None.

## 12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Aquatic Chronic 3: Harmful to aquatic life with long lasting effects. Estimated Mixture LC50 > 10 to ≤ 100 mg/l (Fish)
12.2 Persistence and degradability	No data for the mixture as a whole. Part of the components are poorly biodegradable.
12.3 Bioaccumulative potential	No data for the mixture as a whole.
12.4 Mobility in soil	The product is predicted to have low mobility in soil.
12.5 Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
12.6 Other adverse effects	None known.

## 13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Do not release undiluted and unneutralised to the sewer. This material and its container must be disposed of as hazardous waste (2008/98/EEC). Containers of this material may be hazardous when empty since they retain product residue. Dispose of wastes in an approved waste disposal facility.
13.2 Additional Information	Dispose of contents in accordance with local, state or national legislation.

## 14. SECTION 14: TRANSPORT INFORMATION

14.1 UN number	ADR/RID / IMDG / IATA UN 1133
14.2 UN proper shipping name	ADHESIVES containing flammable liquid
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	Not classified as a Marine Pollutant / Environmentally hazardous substance
14.6 Special precautions for user	See Section: 2
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
14.8 Additional Information	None.

## 15. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1 EU regulations	
Substance(s) of Very High Concern (SVHCs)	N-Methylpyrrolidone (CAS# 872-50-4): Toxic for Reproduction.
Authorisations and/or Restrictions On Use	For professional users only. N-Methylpyrrolidone (CAS# 872-50-4): REACH: ANNEX XVII restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles. Entry number: 30.

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## 15.1.2 National regulations

Wassergefährdungsklasse (Germany)

Water hazard class: 2

## 15.2 Chemical Safety Assessment

Not available.

## 16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

**References:** Existing Safety Data Sheet (SDS), Harmonised Classification(s) for N-Methylpyrrolidone (CAS# 872-50-4) and Xylene (CAS# 1330-20-7) Ethanol (CAS# 64-17-5). Existing ECHA registration(s) for N-Methylpyrrolidone (CAS# 872-50-4) and Xylene (CAS# 1330-20-7). DATA SOURCES: <http://webnet.oecd.org/ccrweb/ChemicalDetails.aspx?ChemicalID=E509354A-1DD6-4912-8E39-FD7862E03FA4> and <http://yosemite.epa.gov/oppts/epatscat8.nsf/ReportSearchView/9B5B68EA7979F0F485256930004ED728> (CAS# 25038-84-0)

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Flam. Liq. 3; H226	Flash Point [Closed cup] Test Result
Asp. Tox. 1; H304	Estimated Viscosity @ 40°C/Existing Safety Data Sheet (SDS)
Skin Irrit. 2; H315	Threshold Calculation
Eye Irrit. 2; H319	Threshold Calculation
STOT SE 3; H335	Threshold Calculation
Repr. 1B; H360D	Threshold Calculation
STOT RE 2; H373	Threshold Calculation
Aquatic Chronic 3; H412	Summation Calculation

### LEGEND

LTEL: Long Term Exposure Limit  
STEL: Short Term Exposure Limit  
DNEL: Derived No Effect Level

PNEC: Predicted No Effect Concentration  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

### Hazard Statement(s)

H226: Flammable liquid and vapour.  
H304: May be fatal if swallowed and enters airways.  
H312: Harmful in contact with skin.

H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.

H335: May cause respiratory irritation.  
H360D: May damage the unborn child.  
H373: May cause damage to organs through prolonged or repeated exposure.  
H411: Toxic to aquatic life with long lasting effects.  
SCL: Specific Concentration Limit

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

### Disclaimers

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### Annex to the extended Safety Data Sheet (eSDS)

No information available.