

Kerr Italia SpA

MATERIAL SAFETY DATA SHEET

in accordance with communitary directive 2001/58/EC

Section I - Identification of Product and Company

Trade Product Name: Permlastic Adhesive	Preparation/Revision Date: 09/03
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Company Name: Kerr Italia S.p.A.	Emergency phone: (+ 41)-91-61.00.639
Company Address: Via Passanti N° 332 - Scafati (SA) - 84018 - Italy	Information phone: 00-800-41-050-505

Section II - Composition/Information on Ingredients

HAZARDOUS INGREDIENTS	%	SYMBOL	R	CAS N.	EINECS N.
Acetone	46	F, Xi	11-36-66-67	67-64-1	200-662-2
Toluene	15	F, Xn	11-20	108-88-3	203-625-9
Methyl-ethyl-ketone (MEK)	14	F, Xi	11-36-66-67	78-93-3	201-159-0

Section III - Hazards Identification

HAZARD CLASSIFICATION	Highly flammable; Irritant
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Section IV - First Aid Measures

Treatment for eye contact: Wash immediately with plenty of water. Consult immediately a physician.
Treatment for skin contact: Wash with soap and plenty of water. If irritation persists, consult a physician.
Treatment for inhalation (breathing): Provide fresh air. If not breathing, give artificial respiration. If breathing is difficult, consult immediately a physician.
Treatment for ingestion (swallowing): Consult immediately a physician. Induce vomiting only under physician instruction. Do not give anything to drink to unconscious persons; if conscious, administer milk or water.

Section V - Firefighting Measures

Suitable extinguishing media: Carbon dioxide, foam, and dry chemical for flammable gases and liquids.
Forbidden extinguishing media: Not determined.
Special firefighting measures: Wear self contained breathing apparatus.
Unusual fire and explosion hazards: Extremely flammable. Avoid overheating. Containers closed adjacent to fire could explode due to pressure buildup. Vapors can travel on the floor toward an ignition source, though distant, causing backfire.
Special protection equipment: Helmet with safety shield and neck protection, positive pressure self-breathing apparatus, fire-proof clothes with bandages around arms, legs and waist.

Section VI - Accidental Release Measures

Personal Precautions: Use precautions listed in other sections.
Environmental Precautions: Use precautions listed in Section VII.
Reclaiming Methods: Extinguish all ignition sources. Collect spilled material, cleanup residue and store in closed metal container.

Section VII - Handling and Storage

Handling Precautions: Use precautions listed in Section VIII.
Precautions in case of Fire and Explosion: Extinguish all ignition sources.
Storage Conditions: Store in a cool and dark place, away from ignition sources. Keep container closed when not in use.
Suggested container(s): Metal containers.
Indication for Combined Storage: Avoid contact with acids.
Other Precautions: Use according to directions.

Section VIII - Exposure controls/personal protection

Precautionary Measures	<u>Ventilation</u> Local Exhaust Ventilation: Sufficient to keep concentration below 100ppm.. Special Ventilation: None. Mechanical (General) Ventilation: Recommended. Other Ventilation: None.
Limits	TWA: 100 ppm; PEL: 100 ppm.
Respiratory Protection	Avoid inhalation of vapors. Choose one among following breathing apparatuses according to concentration of polluting agents in air: respirators semimask for organic vapors or with pre-filter for dust/fog.
Hands Protection	Use suitable gloves: Polyethylene, polytetrafluorethylene (teflon).
Eyes Protection	Safety glasses approved.
Skin Protection	Handle in accordance with good personal hygiene practices. Avoid unnecessary exposure.
Other Protective	Lab coat to protect clothes.

Material Safety Data Sheet for: **Permlastic Adhesive**

Equipments:	
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Section IX - Physical and Chemical Properties

Boiling Point: 55.6°C Vapor Pressure: 180 mm of Hg	Melting Point: Not applicable Specific Gravity: 0.88 g/ml
Evaporation Rate (n-butane= 1): 1.9	Vapor Density (air= 1): 2.0
Solubility in Water: Slightly soluble	
Appearance and Odor (Physical Form): Brown liquid with strong ketone odor.	
Flash Point: -17.8°C	Upper explosivity limit: 12.8 Lower explosivity limit: 2.6

Section X - Stability and Reactivity

Stability: Stable
Conditions to Avoid: Heat and ignition sources.
Incompatibility (Materials to Avoid): Acids.
Hazardous Decomposition Products: Thermal decomposition or burning may produce formaldehyde and nitrogen.
Hazardous Polymerization Products: None.

Section XI - Toxicological Information

Carcinogenicity/Teratogenicity: No
<u>Effects and Hazards of Overexposure (Acute and Chronic)</u>
Effects and hazards of eye contact: May cause irritation: symptoms may be include edema, rash, smarting, lachrymation and accomodation inconveniences.
Effects and hazards of skin contact: May cause mild irritation (by repeated or prolonged contact): symptoms may be include edema, erythema and itch.
Effects and hazards of Inhalation (Breathing): Depression of central nervous system: symptoms may be include cephalea, dizziness, drowsiness, coordination deficiency, reflection reduction, speak confusedly, stunned condition and uncoscience. Irritation (upper respiratory tract): symptoms may be include pain to nose and throat, cough, sneeze.
Effects and hazards of Ingestion (Swallowing): May cause irritation of gastrointestinal tissues: symptoms may include pain, vomit, nausea, tautness of abdomen when pressed, blood in vomit and faeces.
Effects for prolonged Exposure: Pneumonia from inhalation: symptoms may be include cough, respiratory difficulty, dyspnea, blood in expectoration and pneumonia that may be mortal.

Section XII - Ecological Information

There is no specific information on the product. Use according to good working practices, avoiding release of the product into environment.

These information are for Acetone only

Persistence and degradability

B.O.D.5: 0,8 – 1 g/g

C.O.D.: 1,6 – 2 g/g

Biodegradability

The product is easily biodegradable. Do not put in sewers in large amounts because it can reduce oxygen in superficial waters. Use in accordance with good personal hygiene practices, avoiding to disperse the product in environment.

Section XIII - Disposal Considerations

Extinguish all ignition sources. Collect spilled product with absorbent material, store in approved metal container and seal it. Dispose in authorized dumping.

Section XIV - Transport Information

SEA TRANSPORTATION									
IMCO Number									
UN Number		1133							
Substance(s) determining hazard		Acetone, toluene, methyl-ethyl-ketone.							
AIR TRANSPORTATION									
ICAO/IATA Class		3							
Substance(s) determining hazard		Acetone, toluene, methyl-ethyl-ketone.							
TRANSPORTATION BY ROAD/RAILWAY									
<u>RID/AD</u>	3	<u>Item</u>	31 °c	<u>Hazard Identification</u>	30	<u>Substance Identification</u>	1133	<u>Hazard</u>	Mod.3
<u>R Class</u>		<u>Number</u>		<u>Number</u>		<u>Number</u>		<u>Label</u>	

Section XV - Regulatory Information

CLASSIFICATION IN ACCORDANCE WITH EC DIRECTIVES	
HAZARD IDENTIFICATION SYMBOL	F; Xi
R Sentences	
11	Highly flammable
36	Irritating to eyes
66	Repeated exposure may cause skin dryness or cracking
67	Vapours may cause drowsiness and dizziness
S Sentences	
9	Keep in a well ventilated place
16	Keep away from sources of ignition - No smoking
26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
29	Do not empty into drains.
33	Take precautionary measures against static discharges
Ingredients determining the label	Acetone, toluene, methyl-ethyl-ketone

Section XVI - Other Information

Acetone	LD ₅₀ (oral rat)	10,7 ml/Kg
Methyl-ethyl-ketone	LD ₅₀ (oral rat)	6,86 ml/Kg
Toluene	LD ₅₀ (oral rat)	7,53 ml/Kg

CAUTION: PRODUCT FOR PROFESSIONAL USE

The information on this Safety Sheet is based on presently available data and to our best knowledge for the correct handling of the product under normal conditions. Any use of this product in any way not indicated on this Sheet or the use of this product together with any other process/procedure will be exclusively under the user's responsibility.