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PRINT DATE: 06/03/2000

REF: X0056

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## SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

**Product name:** ZIP PATCH ADHESIVE

**Supplier:** ITW Devcon  
Shannon Industrial Estate  
Co. Clare, Ireland.

**Emergency telephone number:** 353(61)471299

**Fax No:** 353(61)471285

Brunel Close, Park Farm Ind. Est.,  
Wellingborough, Northants  
NN8 6QX  
01933 675299  
01933 675765

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Identification of the preparation Chemical Name	formulated product. CAS-No	EEC-No	Class	Weight %
METHYL METHACRYLATE	80-82-6	607-035-00-6	F; R11 Xi; R36/37/38 R43	50-60
METHACRYLIC ACID	79-41-4	607-088-00-5	C; R34	5-15

## 3. HAZARDS IDENTIFICATION

**Most important hazards:** Highly flammable, Irritating to eyes, irritating to skin and mucous membranes

**Specific hazards** Inhalation of high vapour concentrations can cause CNS-depression and narcosis, May cause sensitization by skin contact

## 4. FIRST AID MEASURES

**General advice:** Avoid contact with skin and eyes, Do not breath vapours or spray mist.

**Inhalation:** Move to fresh air, Consult a physician after significant exposure.

**Skin contact:** Remove immediately adhering matter, Wash off immediately with soap and plenty of water, If skin irritation persists, call a physician.

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician,

**Ingestion:** Do not induce vomiting, Drink plenty of water, Call a physician immediately.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** water spray, foam, Carbon Dioxide (CO<sub>2</sub>), dry chemical

**Extinguishing media which must not be used for safety reasons:**

Do not use a solid water stream as it may scatter and spread fire

**Specific hazards:** In case of fire and/or explosion do not breathe fumes, Flash back possible over considerable distance, Polymerization can occur. Polymerization is a highly exothermic reaction and may generate sufficient heat cause thermal decomposition and/or rupture containers

**Special protective equipment for firefighters:** Cool containers / tanks with water spray, If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated, In case of fire, wear a self contained breathing apparatus

**Specific methods:** Standard procedure for chemical fires

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Avoid contact with skin and eyes, Use personal protective equipment, Ensure adequate ventilation, Remove all sources of ignition,

**Environmental precautions:** Avoid subsoil penetration, Do not let product enter drains,

**Methods for cleaning up:** Dam up, Scrape up, Soak up with inert absorbent material,

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Product name: **ZIP PATCH ADHESIVE.****7. HANDLING AND STORAGE**

**Handling:** Use only in area provided with appropriate exhaust ventilation, To avoid ignition of vapors by static electricity discharge, all metal parts of the equipments must be grounded. Do not smoke

**Storage:** Keep containers tightly closed in a cool, well-ventilated place

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Chemical Name:** **National occupational exposure limits** (Ref: British COSHH - EH40):

METHYL METHACRYLATE 50ppm

METHACRYLIC ACID 20ppm

**Engineering measures to reduce exposure** In case of insufficient ventilation wear suitable respiratory equipment,

- **Respiratory protection:** In case of insufficient ventilation wear suitable respiratory equipment,

- **Hand protection:** solvent-resistant gloves

- **Eye protection:** safety glasses, goggles

- **Skin and body protection:** Wear as appropriate :

**Hygiene measures:** Keep away from food, drink and animal feeding stuffs, Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Form:</b>	paste.	<b>Colour:</b>	off-white.	<b>Odour:</b>	pungent
<b>pH:</b>	( 50 g/l H <sub>2</sub> O)	3	( 20 °C)		
<b>Boiling point/range:</b>		101	°C		
<b>Flash point:</b>		10.6	°C		
<b>Explosion limits:</b>		- lower	1.8	vol. % - upper	8.5 vol. %
<b>Vapour pressure:</b>		36.4 (MMA)	mm Hg	( 20 °C)	
<b>Relative density:</b>		- lower	1.03	( 20 °C)	

**10. STABILITY AND REACTIVITY**

**Stability:** Stable, Polymerization can occur.

**Conditions to avoid:** Direct heating, dirt, chemical contamination, sunlight, UV or ionizing radiation.

**Materials to avoid:** reducing agents, oxidizing agents, acids and bases.

**Hazardous decomposition products:** carbon oxides, smoke.

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity:** Effects of breathing high concentrations of vapour may include, bloody urine, damages Central nervous system, Lungs, methacrylic acid; LD50/oral/rat = 1060mg/kg LC50/inhalation/ 0 h/rat = >1300ppm.  
Methyl methacrylate monomer; LD50/oral/rat = 7872mg/kg LC50/inhalation/ 0 h/rat = 7093ppm.

**Local effects:** dermatitis

**Sensitization:** Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

**Long term toxicity:** Prolonged or repeated exposure may cause injuries to liver, kidneys, lungs, nerves and hereditary factors

**12. ECOLOGICAL INFORMATION**

**Mobility:** Bioaccumulation, Do not contaminate water,

**Persistence / degradability:** Methyl methacrylate monomer : Biochemical oxygen demand within 5 days (BOD5) = .14 g/g - 0.9 g/g.

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**Bioaccumulation:**Methyl methacrylate monomer: LC50/96h/Fathead minnows = 150 ppm,  
LC50/96h/bluegill sunfish = 232ppm**Other information:**

formulated product - Not applicable

**13. DISPOSAL CONSIDERATIONS****Waste from residues / unused products:**

In accordance with local and national regulations

**Contaminated packaging:**

In accordance with local and national regulations

**European waste Catalogue No:**

08 04 99

**14. TRANSPORT INFORMATION****Proper shipping name:**

Adhesives

**UN-No:**

1133

**ADR/RID****Class:**

3

**Item:**

31(c)

**HMUN No:**

1133

**IMO****Class:**

3.2

**IMDG Page:**

3174

**EmS:**

3-05

**MFAG:**

330

**Proper shipping name:**

Adhesives

**ICAO****Class:**

3.2

**UNMD No:**

1133

**Proper shipping name**

Adhesives

**15. REGULATORY INFORMATION****Classification according to European directive on classification of hazardous preparations 93/21/EEC****- Contains:**

METHYL METHACRYLATE , METHACRYLIC ACID ,

**- Symbol(s):**F - Highly  
flammable

Xi - Irritant

**R -phrase(s):**

R43 - May cause sensitization by skin contact. R36/37/38 - Irritating to eyes, respiratory system and skin

**S -phrase(s):**

S 9 - Keep container in a well-ventilated place S15 - Keep away from heat. S16 - Keep away from sources of ignition - No smoking. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S29 - Do not empty into drains S33 - Take precautionary measures against static discharges S40 - To clean the floor and all objects contaminated by this material, use Aqueous solution of isopropanol. S 1/2 - Keep locked-up and out of reach of children.

**16. OTHER INFORMATION****Recommended use:**

Adhesives

**Recommended restrictions:**

When used in a mixture, read the labels and safety data sheets of all components. All metal parts of the mixing and processing equipment must be earthed.

**Revision date:**

01/03/2000.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication

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REF: X0057

**SAFETY DATA SHEET****1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**

**Product name:** **ZIP PATCH ACTIVATOR**

**Supplier:** ITW Devcon  
Shannon Industrial Estate  
Co. Clare, Ireland.

Brunel Close, Park Farm Ind.  
Est,  
Wellingborough, Northants  
NN8 6QX

**Emergency telephone number:** 353(61)471299 01933 675299

**Fax No:** 353(61)471285 01933 675765

**2. COMPOSITION/INFORMATION ON INGREDIENTS****Identification of the preparation**

Chemical Name	CAS-No	EEC-No	Class	Weight %
ETHYL METHYL KETONE	78-93-3	606-002-00-3	F; R11 Xi; R36/37	50-80

**3. HAZARDS IDENTIFICATION**

**Most important hazards:** Highly flammable.

**Specific hazards:** Irritating to eyes and skin.

**4. FIRST AID MEASURES**

**General advice:** Show this safety data sheet to the doctor in attendance.

**Inhalation:** Move to fresh air. Consult a physician after significant exposure.

**Skin contact:** Wash off immediately with soap and plenty of water. Consult a physician after significant exposure.

**Eye contact:** Rinse immediately with plenty of water and seek medical advice.

**Ingestion:** Do not induce vomiting. Call a physician immediately.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media:** water, Carbon Dioxide (CO<sub>2</sub>), dry chemical.

**Extinguishing media which must not be used for safety reasons:**  
high volume water jet.

**Specific hazards:** Standard procedure for chemical fires

**Special protective equipment for firefighters:** In case of fire, wear a self contained breathing apparatus

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Do not breath vapours or spray mist. Ensure adequate ventilation.

**Environmental precautions:** Do not let product enter drains. Avoid subsoil penetration.

**Methods for cleaning up:** Dam up, Scrape up, Soak up with inert absorbent material.

**7. HANDLING AND STORAGE**

**Handling:** Use only in area provided with appropriate exhaust ventilation.

**Storage:** Keep containers tightly closed in a cool, well-ventilated place.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Chemical Name:** **ETHYL METHYL KETONE** **National occupational exposure limits (Ref: British COSHH - EH40):**

**Engineering measures to reduce exposure:** Ensure adequate ventilation, especially in confined areas.

- **Respiratory protection:** In case of insufficient ventilation wear suitable respiratory equipment
- **Hand protection:** solvent-resistant gloves.
- **Eye protection:** goggles, safety glasses with side-shields.

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Product name:

ZIP PATCH ACTIVATOR

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- Skin and body protection: protective suit.  
Hygiene measures: Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and immediately after handling the product. General industrial hygiene practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form:	liquid.	Colour:	amber.	Odour:	solvent.
pH:	( 50 g/l H <sub>2</sub> O)	7.5	( 20 °C)		
Boiling point/range:		80	°C		
Flash point:		-4.4	°C		
Flammability (solid, gas):		liquid			
Explosion limits:		- lower	1.4	vol. % - upper	11.4 vol. %
Relative density:		- lower	0.85	( 20 °C)	

**10. STABILITY AND REACTIVITY**

- Stability: Stable.  
Conditions to avoid: Keep away from heat and sources of ignition.

**11. TOXICOLOGICAL INFORMATION**

- Acute toxicity: Methylethylketone= LD50/oral/rat = 2737 mg/kg  
LD50/dermal/rabbit = 6480 mg/kg  
LC50/inhalation/4h/rat = 33234 mg/m<sup>3</sup>  
Local effects: Irritating to eyes, respiratory system and skin.

**12. ECOLOGICAL INFORMATION**

- Mobility: Do not let product enter drains.

**13. DISPOSAL CONSIDERATIONS**

- Waste from residues / unused products: In accordance with local and national regulations  
Contaminated packaging: In accordance with local and national regulations.  
European waste Catalogue No: 08 04 99

**14. TRANSPORT INFORMATION**

Proper shipping name:		Flammable liquids, n.o.s (Methylethylketone)	
UN-No:		1993	
ADR/RID	Class:	3.1	Item: 31 (e)
			HMUN No: 1993
IMO	Class:	3.1	IMDG Page: 3126
	EmS:	3-07	MFAG: 4.2
Proper shipping name:		Flammable liquids, n.o.s ( Methylethylketone)	
ICAO	Class:	3.1	UNID No: 1993
Proper shipping name		Flammable liquids, n.o.s ( Methylethylketone)	

**15. REGULATORY INFORMATION**

Classification according to European directive on classification of hazardous preparations 93/21/EEC

- Contains: Methylethylketone.  
- Symbol(s):



F - Highly flammable



Xi - Irritant

- R -phrase(s): R36/37 - Irritating to eyes and respiratory system..

Product name:

**ZIP PATCH ACTIVATOR**

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**S -phrase(s):** S2 - Keep out of reach of children.. S 9 - Keep container in a well-ventilated place. S16 -  
Keep away from sources of ignition - No smoking.. S25 - Avoid contact with eyes. S33 -  
Take precautionary measures against static discharges.

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**16. OTHER INFORMATION**

**Recommended use:** Adhesives.

**Recommended restrictions:**

When used in a mixture, read the labels and safety data sheets of all components. All metal parts of the  
mixing and processing equipment must be earthed.

**Revision date:** 01/03/2000.

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication