

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

**1.1 Product identifier**

**Product name**            **DEVCON ALUMINIUM PUTTY (F) HARDENER**  
**Synonym(s)**             *NSN: 8010-66-150-4279 • NSN: 8030-00-051-4011 • NSN: 8030-00-229-8734 • PART B*  
 10610 - MANUFACTURER'S CODE • 10620 - MANUFACTURER'S CODE • ALUMINIUM PUTTY  
 HARDENER • D10610 - PRODUCT CODE • POLYAMINES, LIQUID

**1.2 Uses and uses advised against**

**Use(s)**                    **HARDENER • TWO COMPONENT EPOXY SYSTEM**

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

**Supplier name**         **ITW POLYMERS & FLUIDS PTY LTD**  
**Address**                100 Hassall St, Wetherill Park, NSW, Australia, 2164  
**Telephone**            NSW (02) 9757 8800, WA (08) 9249 2833  
**Fax**                      NSW (02) 9757 3855; WA (08) 9249 2855  
**Email**                  reception@itwpcf.com.au  
**Website**                http://www.itwpolymersandfluids.com.au

**1.4 Emergency telephone number(s)**

**Emergency**            1800 039 008; +61 3 9573 3112

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

**GHS Classification(s)**    Acute Toxicity: Oral: Category 4  
 Acute Toxicity: Skin: Category 4  
 Skin Corrosion/Irritation: Category 1B  
 Skin Sensitisation: Category 1  
 Serious Eye Damage / Eye Irritation: Category 1  
 Toxic to Reproduction: Category 2  
 Aquatic Toxicity (Chronic): Category 2

**2.2 Label elements**

**Signal word**            **DANGER**

**Pictograms**



**Hazard statement(s)**

H302                      Harmful if swallowed.  
 H312                      Harmful in contact with skin.  
 H314                      Causes severe skin burns and eye damage.  
 H317                      May cause an allergic skin reaction.  
 H318                      Causes serious eye damage.  
 H361                      Suspected of damaging fertility or the unborn child.  
 H411                      Toxic to aquatic life with long lasting effects.

**Prevention statement(s)**

P202                      Do not handle until all safety precautions have been read and understood.  
 P260                      Do not breathe dust/fume/gas/mist/vapours/spray.  
 P264                      Wash thoroughly after handling.  
 P270                      Do not eat, drink or smoke when using this product.

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P272                               Contaminated work clothing should not be allowed out of the workplace.  
 P273                               Avoid release to the environment.  
 P280                               Wear protective gloves/protective clothing/eye protection/face protection.

**Response statement(s)**

P301 + P330 + P331       IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303 + P361 + P353       IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304 + P340                IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
 P305 + P351 + P338       IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308 + P313                IF exposed or concerned: Get medical advice/ attention.  
 P310                           Immediately call a POISON CENTER or doctor/physician.  
 P321                           Specific treatment is advised - see first aid instructions.  
 P363                           Wash contaminated clothing before reuse.  
 P391                           Collect spillage.

**Storage statement(s)**

P405                           Store locked up.

**Disposal statement(s)**

P501                           Dispose of contents/container in accordance with relevant regulations.

**2.3 Other Hazards**

No information provided.

**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

**3.1 Substances / Mixtures**

Ingredient	CAS number	EC number	Content
TRIETHYLENETETRAMINE (TETA)	112-24-3	203-950-6	30 - 60%
AMINOETHYL PIPERAZINE	140-31-8	205-411-0	1 - 10%
NONYL PHENOL	25154-52-3	246-672-0	1 - 10%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	remainder

**4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

**Eye**                            If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation**                 If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

**Skin**                           If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion**                   For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**First aid facilities**        Eye wash facilities and safety shower should be available.

**4.2 Most important symptoms and effects, both acute and delayed**

Causes burns.

**4.3 Immediate medical attention and special treatment needed**

Treat symptomatically.

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## 5. FIREFIGHTING MEASURES

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### **5.1 Extinguishing media**

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

### **5.2 Special hazards arising from the substance or mixture**

Combustible. May evolve toxic gases (carbon/ nitrogen oxides, amines, ammonia, hydrocarbons) when heated to decomposition.

### **5.3 Advice for firefighters**

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

### **5.4 Hazchem code**

None allocated

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## 6. ACCIDENTAL RELEASE MEASURES

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### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

### **6.2 Environmental precautions**

Prevent product from entering drains and waterways.

### **6.3 Methods of cleaning up**

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all sources of ignition.

### **6.4 Reference to other sections**

See Sections 8 and 13 for exposure controls and disposal.

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## 7. HANDLING AND STORAGE

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### **7.1 Precautions for safe handling**

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

### **7.2 Conditions for safe storage, including any incompatibilities**

Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use. Store as a Class C1 Combustible Liquid (AS1940).

### **7.3 Specific end use(s)**

No information provided.

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## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

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### **8.1 Control parameters**

#### **Exposure standards**

No exposure standards have been entered for this product.

#### **Biological limits**

No biological limit values have been entered for this product.

### **8.2 Exposure controls**

**Engineering Controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

#### **PPE**

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**Eye/Face**                        Wear splash-proof goggles.  
**Hand**                                Wear viton (R) or nitrile gloves.  
**Body**                                Wear coveralls.  
**Respiratory**                    Where an inhalation risk exists, wear a Type A (Organic vapour) respirator. If sanding dry product, wear a Class P1 (Particulate) respirator.



**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

**Appearance**                        CREAM COLOURED PASTE  
**Odour**                                MILD AMMONIA ODOUR  
**Odour Threshold**                NOT AVAILABLE  
**Flammability**                      CLASS C1 COMBUSTIBLE  
**Flash Point**                        > 110°C  
**Boiling Point**                      > 232°C  
**Melting Point**                      NOT AVAILABLE  
**Evaporation Rate**                NOT AVAILABLE  
**pH**                                        10.5 (neat)  
**Specific Gravity**                  0.98  
**Solubility (water)**                INSOLUBLE  
**Vapour Density**                    NOT AVAILABLE  
**Vapour Pressure**                  NOT AVAILABLE  
**Upper Explosion Limit**          NOT AVAILABLE  
**Lower Explosion Limit**        NOT AVAILABLE  
**Partition Coefficient**            NOT AVAILABLE  
**Autoignition Temperature**    > 300°C  
**Decomposition Temperature**   NOT AVAILABLE  
**Viscosity**                            NOT AVAILABLE  
**Explosive Properties**            NOT AVAILABLE  
**Oxidising Properties**            NOT AVAILABLE

**9.2 Other information**

No information provided.

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Carefully review all information in sections 10.2 to 10.6.

### 10.2 Chemical stability

Stable under recommended conditions of storage.

### 10.3 Possibility of hazardous reactions

Hazardous polymerization is not expected to occur.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

### 10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources. Also incompatible with alkalis (e.g. sodium hydroxide) and amines.

### 10.6 Hazardous decomposition products

May evolve toxic gases (carbon/ nitrogen oxides, amines, ammonia, hydrocarbons) when heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

<b>Health hazard summary</b>	Corrosive. This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Potential sensitising agent. Individuals with pre-existing respiratory impairment (eg asthmatics) or skin sensitivities may be more susceptible to adverse health effects. May cause harm to the unborn child.
<b>Eye</b>	Corrosive. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.
<b>Inhalation</b>	Slightly corrosive - irritant. Over exposure may result in irritation of the nose and throat, with coughing. May cause sensitisation by inhalation. High level exposure may result in breathing difficulties, ulceration, pulmonary oedema and unconsciousness.
<b>Skin</b>	Slightly corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. May cause sensitisation by skin contact.
<b>Ingestion</b>	Corrosive. Ingestion may result in gastrointestinal irritation, nausea, vomiting, abdominal pain and diarrhoea. Ingestion of large quantities may result in gastrointestinal tract ulceration, unconsciousness and convulsions.
<b>Toxicity data</b>	TRIETHYLENETETRAMINE (TETA) (112-24-3) LD50 (Ingestion): 1600 mg/kg (mouse) LD50 (Intraperitoneal): 468 mg/kg (mouse) LD50 (Intravenous): 350 mg/kg (mouse) LD50 (Skin): 805 mg/kg (rabbit) AMINOETHYL PIPERAZINE (140-31-8) LD50 (Ingestion): 2140 mg/kg (rat) LD50 (Intraperitoneal): 250 mg/kg (mouse) LD50 (Skin): 880 mg/kg (rabbit) NONYL PHENOL (25154-52-3) LD50 (Ingestion): 1231 mg/kg (mouse) LD50 (Skin): 2140 uL/kg (rabbit)

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**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**12.2 Persistence and degradability**

No information provided.

**12.3 Bioaccumulative potential**

No information provided.

**12.4 Mobility in soil**

No information provided.

**12.5 Results of PBT and vPvB assessment**

No information provided.

**12.6 Other adverse effects**

No information provided.

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Waste disposal** Mix components together (small amounts), absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Ensure protective equipment is worn when mixing. Do not seal containers/tins until reaction is complete. Contact the manufacturer/supplier for additional information (if required). Prevent contamination of drains and waterways as environmental damage may result.

**Legislation** Dispose of in accordance with relevant local legislation.

**14. TRANSPORT INFORMATION**

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
<b>14.1 UN number</b>	None Allocated	None Allocated	None Allocated
<b>14.2 UN proper shipping name</b>	None Allocated	None Allocated	None Allocated
<b>14.3 Transport hazard classes</b>			
<b>DG Class</b>	None Allocated	None Allocated	None Allocated
<b>Subsidiary risk(s)</b>	None Allocated	None Allocated	None Allocated
<b>14.4 Packing group</b>	None Allocated	None Allocated	None Allocated
<b>14.5 Environmental hazards</b>		None Allocated	
<b>14.6 Special precautions for user</b>			
<b>Hazchem Code</b>	None Allocated		
<b>EMS</b>		F-A, S-B	

**15. REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Poison schedule** Classified as a Schedule 5 Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

**Classifications** C - Corrosive  
 N - Dangerous for the environment  
 Repr. - Reproductive toxin  
 Xi - Irritant

<b>Product name</b>	<b>DEVCON ALUMINIUM PUTTY (F) HARDENER</b>	
	Xn - Harmful	
<b>Risk phrases</b>	R21/22:	Harmful in contact with skin and if swallowed.
	R34:	Causes burns.
	R41:	Risk of serious damage to eyes.
	R43:	May cause sensitisation by skin contact.
	R51/53:	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
	R61:	May cause harm to the unborn child.
<b>Safety phrases</b>	S1/2:	Keep locked up and out of reach of children.
	S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	S36/37/39:	Wear suitable protective clothing, gloves and eye/face protection.
	S45:	In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
	S61:	Avoid release to the environment. Refer to special instructions/safety data sheets.
<b>Inventory listing(s)</b>	<b>AUSTRALIA: AICS (Australian Inventory of Chemical Substances)</b> All components are listed on AICS, or are exempt.	

**15.2 Chemical safety assessment**

No information provided.

**16. OTHER INFORMATION**

**Additional information** This product is used in conjunction with Devcon Aluminium Putty (F) Resin. Please refer to the appropriate SDS before use.

**WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT:** If sanding, cutting or welding dried or cured product, adverse health effects may be avoided by the use of appropriate engineering controls and/or personal protective equipment. If welding, wear a Class P2 (Metal fume) respirator and depending on the nature of the surface being welded, additional protection (e.g. for organic vapours/acid gas) may also be required. A Class P1 (Particulate) respirator is recommended if dust is generated.

**RESPIRATORS:** In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

**HEALTH EFFECTS FROM EXPOSURE:**  
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**  
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

<b>Abbreviations</b>	ACGIH	American Conference of Governmental Industrial Hygienists
	CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
	CNS	Central Nervous System

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EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

**Report Status**                   This ChemAlert report has been independently compiled by RMT's scientific department utilising the original Safety Data Sheet ('SDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.

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**Last Reviewed:** 11 Nov 2015  
**Date Printed:** 11 Nov 2016  
**Based on SDS dated:** 29 Mar 2012

**End of Report**