Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
DEVCON PLASTIC STEEL EPOXY (S5) HARDENER

PRODUCT USE
Hardener component of two part epoxy system.

SUPPLIER
Company: ITW Polymers & Fluids
Address:
100 Hassall Street
Wetherill Park
NSW, 2164
Australia
Telephone: +61 2 9757 8800
Emergency Tel: 1800 039 008
Emergency Tel: +61 3 9573 3112
Fax: +61 2 9757 3855

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.
COMBUSTIBLE LIQUID, regulated under AS1940 for Bulk Storage purposes only.

RISK
■ Harmful if swallowed.
■ Irritating to respiratory system and skin.
■ Risk of serious damage to eyes.
■ May cause SENSITISATION by skin contact.
■ Harmful to aquatic organisms, may cause long- term adverse effects in the aquatic environment.
■ May cause harm to the unborn child.

■ Possible risk of impaired fertility.

SAFETY
• Keep locked up.
• Do not breathe gas/fumes/vapour/spray.
• Avoid contact with skin.
• Avoid contact with eyes.
• Wear suitable protective clothing.

• In case of insufficient ventilation, wear suitable respiratory equipment.
• Wear suitable gloves.
• Wear eye/face protection.
• Avoid exposure - obtain special instructions before use.
• To clean the floor and all objects contaminated by this material, use water and detergent.
• This material and its container must be disposed of in a safe way.
• Keep away from food, drink and animal feeding stuffs.
• In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

continued...

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
tall oil/ tetraethylenepentamine polyamides	68513-05-3	10-20
pacm oligomers		5-10
benzyl alcohol	100-51-6	1-5
tetraethylenepentamine	112-57-2	1-5
nonylphenol	25154-52-3	1-5
4- nonylphenol, branched	84852-15-3	1-5
2, 4, 6- tris[(dimethylamino)methyl]phenol	90-72-2	1-5
silica crystalline - quartz	14808-60-7	<1
ingredients proprietary nonhazardous		balance

Section 4 - FIRST AID MEASURES

SWALLOWED
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

EYE
■ If this product comes in contact with the eyes:
- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.

SKIN
■ If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED
- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

NOTES TO PHYSICIAN
For acute or short-term repeated exposures to highly alkaline materials:
- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- The presence of shock suggests perforation and mandates an intravenous line and fluid administration.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

FIRE FIGHTING
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as a fine spray to control fire and cool adjacent area.

continued...

FIRE/EXPLOSION HAZARD
• Combustible.
• Slight fire hazard when exposed to heat or flame.
• Heating may cause expansion or decomposition leading to violent rupture of containers.
• On combustion, may emit toxic fumes of carbon monoxide (CO).
Combustion products include: carbon dioxide (CO_2), nitrogen oxides (NOx), hydrogen chloride, other pyrolysis products typical of burning organic material.
May emit poisonous fumes.
May emit corrosive fumes.

FIRE INCOMPATIBILITY
• Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM
None

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
• Remove all ignition sources.
• Clean up all spills immediately.
• Avoid breathing vapours and contact with skin and eyes.
• Control personal contact with the substance, by using protective equipment.

MAJOR SPILLS
Moderate hazard.
• Clear area of personnel and move upwind.
• Alert Fire Brigade and tell them location and nature of hazard.
• Wear breathing apparatus plus protective gloves.
• Prevent, by any means available, spillage from entering drains or water course.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
• DO NOT allow clothing wet with material to stay in contact with skin.
• Avoid all personal contact, including inhalation.
• Wear protective clothing when risk of exposure occurs.
• Use in a well-ventilated area.
• Prevent concentration in hollows and sumps.

SUITABLE CONTAINER
• Metal can or drum
• Packaging as recommended by manufacturer.
• Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY
• Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.
• Avoid contact with copper, aluminium and their alloys.
• Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS
• Store in original containers.
• Keep containers securely sealed.
• No smoking, naked lights or ignition sources.
• Store in a cool, dry, well-ventilated area.

continued...

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	TWA F/CC	Notes
Australia Exposure Standards	silica crystalline - quartz (Silica - Crystalline Quartz)		0.1						(see Chapter 14)

The following materials had no OELs on our records

• tall oil/ tetraethylenepentamine polyamides:	CAS:68513- 05- 3 CAS:68953- 36- 6 CAS:68555- 22- 6 CAS:1226892- 45- 0
• benzyl alcohol:	CAS:100- 51- 6
• tetraethylenepentamine:	CAS:112- 57- 2
• nonylphenol:	CAS:25154- 52- 3 CAS:84852- 15- 3 CAS:139- 84- 4 CAS:136- 83- 4
• 4- nonylphenol, branched:	CAS:84852- 15- 3
• 2, 4, 6- tris[(dimethylamino)methyl]phenol:	CAS:90- 72- 2

MATERIAL DATA

4-NONYLPHENOL, BRANCHED:
BENZYL ALCOHOL:
NONYLPHENOL:
TETRAETHYLENEPENTAMINE:

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations.

2,4,6-TRIS[(DIMETHYLAMINO)METHYL]PHENOL:
BENZYL ALCOHOL:

Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.

DEVCON PLASTIC STEEL EPOXY (S5) HARDENER:

Not available

TALL OIL/ TETRAETHYLENEPENTAMINE POLYAMIDES:

Polyamide hardeners have much reduced volatility, toxicity and are much less irritating to the skin and eyes than amine hardeners. However commercial polyamides may contain a percentage of residual unreacted amine and all unnecessary contact should be avoided.

No exposure limits set by NOHSC or ACGIH.

BENZYL ALCOHOL:

OEL STEL (Russia): 5 mg/m3 Skin
Odour Threshold: 5.5 ppm

2,4,6-TRIS[(DIMETHYLAMINO)METHYL]PHENOL:

Odour Threshold Value for phenol: 0.060 ppm (detection)
NOTE: Detector tubes for phenol, measuring in excess of 1 ppm, are commercially available.
Systemic absorption by all routes may induce convulsions with damage to the lungs and central nervous system.<</>.
CEL TWA: 5 ppm, 54 mg/m3 SKIN [Rohm & Haas]

SILICA CRYSTALLINE - QUARTZ:

The concentration of dust, for application of respirable dust limits, is to be determined from the fraction that penetrates a separator whose size collection efficiency is described by a cumulative log-normal function with a median aerodynamic diameter of 4.0 µm (+-) 0.3 µm and with a geometric standard deviation of 1.5 µm (+-) 0.1 µm, i.e..generally less than 5 µm.

Because the margin of safety of the quartz TLV is not known with certainty and given the associated link between silicosis and lung cancer it is recommended that quartz concentrations be maintained as far below the TLV as prudent practices will allow.

WARNING: For inhalation exposure ONLY:

This substance has been classified by the ACGIH as A2 Suspected Human Carcinogen.

continued...

PERSONAL PROTECTION

RESPIRATOR
•Type BKAX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

EYE
- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

HANDS/FEET
- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber.

NOTE:
- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.
Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

OTHER
- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

ENGINEERING CONTROLS
■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
The basic types of engineering controls are:
Process controls which involve changing the way a job activity or process is done to reduce the risk.
Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.
Refer also to protective measures for the other component used with the product. Read both MSDS before using; store and attach MSDS together.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Amber liquid with ammonia-like, fishy odour.

PHYSICAL PROPERTIES
Liquid.
Alkaline.

State	Liquid	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Available
Boiling Range (°C)	Not Available	Solubility in water (g/L)	Not Available
Flash Point (°C)	131	pH (1% solution)	>10 (5% slurry)
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Available
Autoignition Temp (°C)	Not Available	Vapour Pressure (kPa)	Not Available
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	1.016
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	>1

continued...

Volatile Component (%vol)	Not Available	Evaporation Rate	Not Available

Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY
• Presence of incompatible materials.
• Product is considered stable.
• Hazardous polymerisation will not occur.
For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED
■ Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
Ingestion may result in nausea, abdominal irritation, pain and vomiting.

EYE
■ The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN
■ This material can cause inflammation of the skin oncontact in some persons.
The material may accentuate any pre-existing dermatitis condition.
Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED
■ The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
Inhalation of epoxy resin amine hardeners (including polyamines and amine adducts) may produce bronchospasm and coughing episodes lasting several days after cessation of the exposure. Even faint traces of these vapours may trigger an intense reaction in individuals showing "amine asthma". The literature records several instances of systemic intoxications following the use of amines in epoxy resin systems.

CHRONIC HEALTH EFFECTS
■ Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.
Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.
Ample evidence from experiments exists that there is a suspicionthis material directly reduces fertility.
Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother.
There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.
Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.
Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity. Sensitised persons should not be allowed to work in situations where exposure may occur.

TOXICITY AND IRRITATION
■ Not available. Refer to individual constituents.

CARCINOGEN

silica crystalline - quartz	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	1

continued...

SKIN

benzyl alcohol	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	2
tetraethylenepentamine	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	3
nonylphenol	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	3

Section 12 - ECOLOGICAL INFORMATION

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

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
tall oil/ tetraethylenepentamine polyamides	No Data Available	No Data Available	No Data Available	No Data Available
benzyl alcohol	LOW	No Data Available	LOW	HIGH
tetraethylenepentamine	LOW	No Data Available	LOW	MED
nonylphenol	HIGH	No Data Available	LOW	LOW
4- nonylphenol, branched	HIGH	No Data Available	LOW	LOW
2, 4, 6- tris[(dimethylamino)methyl]phenol	HIGH	No Data Available	LOW	LOW
silica crystalline - quartz	No Data Available	No Data Available	No Data Available	No Data Available

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Material may be disposed of by controlled burning in an approved incinerator or buried in an approved landfill.
- Prior to disposal in a landfill the material should be mixed with the other component and reacted to render the material inert.

Section 14 - TRANSPORTATION INFORMATION

Labels Required: COMBUSTIBLE LIQUID, regulated under AS1940 for Bulk Storage purposes only.

HAZCHEM:
None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

Indications of Danger:
T Toxic

POISONS SCHEDULE
None

REGULATIONS

continued...

Regulations for ingredients

tall oil/ tetraethylenepentamine polyamides (CAS: 68513-05-3, 68953-36-6, 68555-22-6, 1226892-45-0) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS)", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – United Kingdom"

benzyl alcohol (CAS: 100-51-6) is found on the following regulatory lists;
"Australia - Victoria Occupational Health and Safety Regulations - Schedule 9: Materials at Major Hazard Facilities (And Their Threshold Quantity) Table 2", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Standards Restricted", "International Fragrance Association (IFRA) Survey: Transparency List", "International Fragrance Association IFRA Standards Annex I", "OECD List of High Production Volume (HPV) Chemicals"

tetraethylenepentamine (CAS: 112-57-2) is found on the following regulatory lists;
"Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "OSPAR National List of Candidates for Substitution – United Kingdom"

nonylphenol (CAS: 25154-52-3, 84852-15-3, 139-84-4, 136-83-4) is found on the following regulatory lists;
"Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Chemical Secretariat (ChemSec) SIN List (*Substitute It Now!)", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR List of Substances of Possible Concern", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments"

4-nonylphenol, branched (CAS: 84852-15-3) is found on the following regulatory lists;
"Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "International Chemical Secretariat (ChemSec) SIN List (*Substitute It Now!)", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR List of Substances of Possible Concern", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments"

2, 4, 6-tris[(dimethylamino)methyl]phenol (CAS: 90-72-2) is found on the following regulatory lists;
"Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals"

silica crystalline - quartz (CAS: 14808-60-7, 122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 70594-95-5, 87347-84-0) is found on the following regulatory lists;
"Australia - New South Wales Hazardous Substances Prohibited for Specific Uses", "Australia - New South Wales Hazardous Substances Requiring Health Surveillance", "Australia - Queensland Workplace Health and Safety Regulation - Hazardous substances for which health surveillance must be supplied", "Australia - South Australia - Hazardous Substances Requiring Health Surveillance", "Australia - Tasmania Hazardous Substances Prohibited for Specified Uses", "Australia - Tasmania Hazardous Substances Requiring Health Surveillance", "Australia - Western Australia Hazardous Substances Prohibited for Specified Uses or Methods of Handling", "Australia - Western Australia Hazardous Substances Requiring Health Surveillance", "Australia Australian Safety and Compensation Council (ASCC) Draft National Code of Practice for the Control of Workplace Hazardous Chemicals - Schedule 4 Hazardous chemicals Requiring Health Surveillance", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia Hazardous Substances Requiring Health Surveillance", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance", "Australia Work Health and Safety Regulations 2011 - Hazardous chemicals (other than lead) requiring health monitoring", "Australia Work Health and Safety Regulations 2011 - Restricted hazardous chemicals", "FisherTransport Information", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD

continued...

List of High Production Volume (HPV) Chemicals", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments"

No data for Devcon Plastic Steel Epoxy (S5) Hardener (CW: 02-0802)

Section 16 - OTHER INFORMATION

Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
nonylphenol	25154- 52- 3	AUTOID~
nonylphenol	139- 84- 4	AUTOID~
nonylphenol	136- 83- 4	AUTOID~

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
tall oil/ tetraethylenepentamine polyamides	68513-05-3, 68953-36-6, 68555-22-6, 1226892-45-0
nonylphenol	25154-52-3, 84852-15-3, 139-84-4, 136-83-4
silica crystalline - quartz	14808-60-7, 122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 70594-95-5, 87347-84-0

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

Issue Date: 19-Oct-2012
Print Date: 9-Jan-2013

This is the end of the MSDS.

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
DEVCON PLASTIC STEEL EPOXY (S5) RESIN

SYNONYMS
"PART: DS-5"

PROPER SHIPPING NAME
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(contains bisphenol A/ epichlorohydrin resin, liquid)

PRODUCT USE
Resin component of two part epoxy system.
NOTE: The product is unregulated for Road and Rail transport when transported in (a) packagings; (b) IBCs; or (c) any other receptacle not exceeding 500 kg(L).

SUPPLIER
Company: ITW Polymers & Fluids
Address:
100 Hassall Street
Wetherill Park
NSW, 2164
Australia
Telephone: +61 2 9757 8800
Emergency Tel: 1800 039 008
Emergency Tel: +61 3 9573 3112
Fax: +61 2 9757 3855

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

RISK
■ Irritating to eyes and skin.
■ May cause SENSITISATION by skin contact.
■ Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY
• Avoid contact with skin.
• Avoid contact with eyes.
• Wear suitable gloves.

• Wear eye/face protection.
• Do not empty into drains.
• To clean the floor and all objects contaminated by this material, use water and detergent.
• This material and its container must be disposed of in a safe way.
• In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
• If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

continued...

• Use appropriate container to avoid environmental contamination.
• Avoid release to the environment. Refer to special instructions/Safety data sheets.
• This material and its container must be disposed of as hazardous waste.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
bisphenol A/ epichlorohydrin resin, liquid	25068-38-6	30-60
iron	7439-89-6	1-10
benzyl alcohol	100-51-6	1-5
silicon powder amorphous	7440-21-3	1-5
silica crystalline - quartz	14808-60-7	0.1-1
ingredients nonhazardous		balance

Section 4 - FIRST AID MEASURES

SWALLOWED
• If swallowed do NOT induce vomiting.
• If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
• Observe the patient carefully.
• Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

EYE
■ If this product comes in contact with the eyes:
• Wash out immediately with fresh running water.
• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
• Seek medical attention without delay; if pain persists or recurs seek medical attention.
• Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN
■ If skin contact occurs:
• Immediately remove all contaminated clothing, including footwear.
• Flush skin and hair with running water (and soap if available).
• Seek medical attention in event of irritation.

INHALED
• If fumes or combustion products are inhaled remove from contaminated area.
• Lay patient down. Keep warm and rested.
• Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
• Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

NOTES TO PHYSICIAN
Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
• Foam.
• Dry chemical powder.
• BCF (where regulations permit).
• Carbon dioxide.

FIRE FIGHTING
• Alert Fire Brigade and tell them location and nature of hazard.
• Wear full body protective clothing with breathing apparatus.

continued...

• Prevent, by any means available, spillage from entering drains or water course.
• Use water delivered as a fine spray to control fire and cool adjacent area.

FIRE/EXPLOSION HAZARD
• Combustible.
• Slight fire hazard when exposed to heat or flame.
• Heating may cause expansion or decomposition leading to violent rupture of containers.
• On combustion, may emit toxic fumes of carbon monoxide (CO).
Combustion products include: carbon dioxide (CO_2), aldehydes, other pyrolysis products typical of burning organic material.

FIRE INCOMPATIBILITY
• Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM
•3Z

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
Environmental hazard - contain spillage.
• Clean up all spills immediately.
• Avoid breathing vapours and contact with skin and eyes.
• Control personal contact with the substance, by using protective equipment.
• Contain and absorb spill with sand, earth, inert material or vermiculite.

MAJOR SPILLS
Environmental hazard - contain spillage.
Moderate hazard.
• Clear area of personnel and move upwind.
• Alert Fire Brigade and tell them location and nature of hazard.
• Wear breathing apparatus plus protective gloves.
• Prevent, by any means available, spillage from entering drains or water course.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
• DO NOT allow clothing wet with material to stay in contact with skin.
• Avoid all personal contact, including inhalation.
• Wear protective clothing when risk of exposure occurs.
• Use in a well-ventilated area.
• Prevent concentration in hollows and sumps.

SUITABLE CONTAINER
• Metal can or drum
• Packaging as recommended by manufacturer.
• Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY
• Avoid cross contamination between the two liquid parts of product (kit).
• If two part products are mixed or allowed to mix in proportions other than manufacturer's recommendation, polymerisation with gelation and evolution of heat (exotherm) may occur.
• This excess heat may generate toxic vapour.
• Avoid reaction with amines, mercaptans, strong acids and oxidising agents.

STORAGE REQUIREMENTS
• Store in original containers.
• Keep containers securely sealed.
• No smoking, naked lights or ignition sources.
• Store in a cool, dry, well-ventilated area.

continued...

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	TWA F/CC	Notes
Australia Exposure Standards	iron (Inspirable dust (not otherwise classified))		10						
Australia Exposure Standards	silicon powder amorphous (Silicon (a))		10						(see Chapter 14)
Australia Exposure Standards	silica crystalline - quartz (Silica - Crystalline Quartz)		0.1						(see Chapter 14)

The following materials had no OELs on our records
• bisphenol A/ epichlorohydrin resin, liquid: CAS:25068- 38- 6 CAS:25085- 99- 8
• benzyl alcohol: CAS:100- 51- 6

MATERIAL DATA
BENZYL ALCOHOL:
BISPHENOL A/ EPICHLOROHYDRIN RESIN, LIQUID:
DEVCON PLASTIC STEEL EPOXY (S5) RESIN:
IRON:
Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations.

SILICA CRYSTALLINE - QUARTZ:
SILICON POWDER AMORPHOUS:
The concentration of dust, for application of respirable dust limits, is to be determined from the fraction that penetrates a separator whose size collection efficiency is described by a cumulative log-normal function with a median aerodynamic diameter of 4.0 µm (+-) 0.3 µm and with a geometric standard deviation of 1.5 µm (+-) 0.1 µm, i.e..generally less than 5 µm.

BISPHENOL A/ EPICHLOROHYDRIN RESIN, LIQUID:
For epichlorohydrin
Odour Threshold Value: 0.08 ppm
NOTE: Detector tubes for epichlorohydrin, measuring in excess of 5 ppm, are commercially available.
Exposure at or below the recommended TLV-TWA is thought to minimise the potential for adverse respiratory, liver, kidney effects.
Odour Safety Factor (OSF)
OSF=0.54 (EPICHLOROHYDRIN).

IRON:
The recommended TLV is thought to reduce the likelihood of respiratory irritation and skin irritation from exposure to aerosols and mists of soluble iron salts.

BENZYL ALCOHOL:
Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.
OEL STEL (Russia): 5 mg/m3 Skin
Odour Threshold: 5.5 ppm

SILICON POWDER AMORPHOUS:
For silicon
CEL TWA: 5 mg/m3
(CEL = Chemwatch Exposure Limit)
NOTE: The CEL TWA is consistent with the value recommended in the Norwegian ferro-alloy industry (furnace room dust/mixed dust).
Silicon dust appears to have little adverse effect on the lungs and is not implicated in the genesis of organic disease or in the production of toxic effects.

SILICA CRYSTALLINE - QUARTZ:

continued...

Because the margin of safety of the quartz TLV is not known with certainty and given the associated link between silicosis and lung cancer it is recommended that quartz concentrations be maintained as far below the TLV as prudent practices will allow.

WARNING: For inhalation exposure ONLY:

This substance has been classified by the ACGIH as A2 Suspected Human Carcinogen.

PERSONAL PROTECTION

RESPIRATOR

•Type AX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

HANDS/FEET

- When handling liquid-grade epoxy resins wear chemically protective gloves (e.g nitrile or nitrile-butatoluene rubber), boots and aprons.
- DO NOT use cotton or leather (which absorb and concentrate the resin), polyvinyl chloride, rubber or polyethylene gloves (which absorb the resin).
- DO NOT use barrier creams containing emulsified fats and oils as these may absorb the resin; silicone-based barrier creams should be reviewed prior to use.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:.

NOTE:

- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

ENGINEERING CONTROLS

■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Refer also to protective measures for the other component used with the product. Read both MSDS before using; store and attach MSDS together.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Dark grey paste with slight odour; insoluble in water.

PHYSICAL PROPERTIES

State	Non Slump Paste	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Available

continued...

Boiling Range (°C)	232	Solubility in water (g/L)	Partly Miscible
Flash Point (°C)	Not Available	pH (1% solution)	7 (5% slurry)
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Applicable
Autoignition Temp (°C)	Not Available	Vapour Pressure (kPa)	Negligible
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	1.62
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	>1
Volatile Component (%vol)	VOC 0	Evaporation Rate	Not Applicable

Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY
• Presence of incompatible materials.
• Product is considered stable.
• Hazardous polymerisation will not occur.
For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED
■ Accidental ingestion of the material may be damaging to the health of the individual.

EYE
■ This material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.

SKIN
■ Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.
This material can cause inflammation of the skin oncontact in some persons.
Epoxy materials may cause allergic and/or contact dermatitis responses, which may occur on exposure or may become apparent only after repeated exposures. Sensitisation is possible.
The material may accentuate any pre-existing dermatitis condition.

INHALED
■ Not normally a hazard due to non-volatile nature of product.

CHRONIC HEALTH EFFECTS
■ Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.
Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity. Sensitised persons should not be allowed to work in situations where exposure may occur.

TOXICITY AND IRRITATION
■ Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

CARCINOGEN

silica crystalline - quartz	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	1

SKIN

continued...

benzyl alcohol	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	2

Section 12 - ECOLOGICAL INFORMATION

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment.
Refer to special instructions/ safety data sheets.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
bisphenol A/ epichlorohydrin resin, liquid	HIGH	No Data Available	LOW	HIGH
iron	No Data Available	No Data Available	LOW	No Data Available
benzyl alcohol	LOW	No Data Available	LOW	HIGH
silicon powder amorphous	No Data Available	No Data Available	No Data Available	No Data Available
silica crystalline - quartz	No Data Available	No Data Available	No Data Available	No Data Available

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Material may be disposed of by controlled burning in an approved incinerator or buried in an approved landfill.
- Prior to disposal in a landfill the material should be mixed with the other component and reacted to render the material inert.

Section 14 - TRANSPORTATION INFORMATION

■ *Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;*
(a) packagings;
(b) IBCs; or
(c) any other receptacle not exceeding 500 kg(L).
- Australian Special Provisions (SP AU01) - ADG Code 7th Ed.
Labels Required: MISCELLANEOUS

HAZCHEM:
•3Z (ADG7)

Land Transport UNDG:

Class or division:	9	Subsidiary risk:	None
UN No.:	3082	UN packing group:	III

Shipping Name:ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains bisphenol A/ epichlorohydrin resin, liquid)

Air Transport IATA:

ICAO/IATA Class:	9	ICAO/IATA Subrisk:	None
UN/ID Number:	3082	Packing Group:	III
Special provisions:	A97		

Shipping name:ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(contains bisphenol A/ epichlorohydrin resin, liquid)

continued...

Maritime Transport IMDG:

IMDG Class:	9	IMDG Subrisk:	None
UN Number:	3082	Packing Group:	III
EMS Number:	F-A,S-F	Special provisions:	274 335
Limited Quantities:	5 L	Marine Pollutant:	Yes

Shipping name:ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(contains bisphenol A/ epichlorohydrin resin, liquid)

Section 15 - REGULATORY INFORMATION

Indications of Danger:
N Dangerous for the environment
Xi Irritant

POISONS SCHEDULE
S5

REGULATIONS

Regulations for ingredients

bisphenol A/ epichlorohydrin resin, liquid (CAS: 25068-38-6, 25085-99-8) is found on the following regulatory lists;
"Australia - Victoria Occupational Health and Safety Regulations - Schedule 9: Materials at Major Hazard Facilities (And Their Threshold Quantity) Table 2", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – United Kingdom"

iron (CAS: 7439-89-6) is found on the following regulatory lists;
"Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (AQUA/1 to 6 - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (IRRIG - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (STOCK - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (Aquatic habitat)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (IRRIG)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (STOCK)", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia Exposure Standards", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "FisherTransport Information", "OECD List of High Production Volume (HPV) Chemicals", "WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established"

benzyl alcohol (CAS: 100-51-6) is found on the following regulatory lists;
"Australia - Victoria Occupational Health and Safety Regulations - Schedule 9: Materials at Major Hazard Facilities (And Their Threshold Quantity) Table 2", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Standards Restricted", "International Fragrance Association (IFRA) Survey: Transparency List", "International Fragrance Association IFRA Standards Annex I", "OECD List of High Production Volume (HPV) Chemicals"

silicon powder amorphous (CAS: 7440-21-3) is found on the following regulatory lists;
"Australia Exposure Standards", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "FisherTransport Information", "OECD List of High Production Volume (HPV) Chemicals"

silica crystalline - quartz (CAS: 14808-60-7, 122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 70594-95-5, 87347-84-0) is found on the following regulatory lists;
"Australia - New South Wales Hazardous Substances Prohibited for Specific Uses", "Australia - New South Wales Hazardous Substances Requiring Health Surveillance", "Australia - Queensland Workplace Health and Safety Regulation - Hazardous substances for which health surveillance must be supplied", "Australia - South Australia - Hazardous Substances Requiring Health

continued...

Surveillance", "Australia - Tasmania Hazardous Substances Prohibited for Specified Uses", "Australia - Tasmania Hazardous Substances Requiring Health Surveillance", "Australia - Western Australia Hazardous Substances Prohibited for Specified Uses or Methods of Handling", "Australia - Western Australia Hazardous Substances Requiring Health Surveillance", "Australia Australian Safety and Compensation Council (ASCC) Draft National Code of Practice for the Control of Workplace Hazardous Chemicals - Schedule 4 Hazardous chemicals Requiring Health Surveillance", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia Hazardous Substances Requiring Health Surveillance", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance", "Australia Work Health and Safety Regulations 2011 - Hazardous chemicals (other than lead) requiring health monitoring", "Australia Work Health and Safety Regulations 2011 - Restricted hazardous chemicals", "FisherTransport Information", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments"

No data for Devcon Plastic Steel Epoxy (S5) Resin (CW: 02-0801)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
bisphenol A/ epichlorohydrin resin, liquid	25068-38-6, 25085-99-8
silica crystalline - quartz	14808-60-7, 122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 70594-95-5, 87347-84-0

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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This is the end of the MSDS.