WORK-PRACTICE DATA SHEET - THIS IS A SUMMARY ONLY - FULL REPORT AVAILABLE

ChemWatch 5053-69 - HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. - Company Contact No. +1800 039 008

AV515

INGREDIENTS	CAS No	%	TWA
polyurethane prepolymer resin	63439-95-2	25-35	0.02 mg/m3
MDI oligomer	9016-87-9	15-25	0.02 mg/m3
4,4'-diphenylmethane diisocyanate (MDI)	101-68-8	15-25	01 ppm
fillers/extenders		10-30	

NOT REGULATED UNDER UN CODE FOR TRANSPORT OF DANGEROUS GOODS

PROPERTIES

Liquid.
Does not mix with water.
Sinks in water.

HEALTH HAZARD INFORMATION

Acute Health Effects:
Harmful by inhalation and if swallowed.
Irritating to eyes, respiratory system and skin.
Can be absorbed through skin.
Skin contact may produce health damage*.
* (limited evidence).

Chronic Health Effects:
May cause SENSITISATION by inhalation and skin contact.
Exposure may produce irreversible effects*.
May possibly affect fertility*.
Cumulative effects may result following exposure*.
* (limited evidence).

FIRST AID

Swallowed:
Contact doctor or Poisons Centre.
Give glass of water.

Eye:
Wash with running water (15 mins). Medical attention.

Skin:
Wash with soap & water. Apply cleansing cream.

Inhaled:
Fresh air. Rest, keep warm. If breathing shallow, give oxygen. Medical attention.

PRECAUTIONS FOR USE

Engineering Controls:
Local Exhaust Ventilation recommended.

Glasses:
Safety Glasses.
Chemical goggles.
Full face- shield.

Gloves:
1.PE/EVAL/PE

Respirator:
Type A-P Filter of sufficient capacity

SAFE HANDLING INFORMATION

Spills & Disposal:
Take off immediately all contaminated clothing.

Fire Fighting:
Foam.

ADVICE TO DOCTOR

For asthma inhale sympathomimetics. Charcoal and cathartics for ingestion. For corneal injury - mydriatics, analgesics.

AV515

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

AV515

SYNONYMS

One part polyurethane adhesive
isocyanate component

PRODUCT USE

One-part polyurethane adhesive. Operators should be trained in procedures for safe use of this material. CONTAINS free organic isocyanate. Mixing and application requires special precautions and use of personal protective gear [APMF] Persons with a history of asthma or other respiratory problems or are known to be sensitised, should not be engaged in any work involving the handling of isocyanates. ColourCCTRADE OdourBayer, APMF]

SUPPLIER

Company: AV Syntec Pty Ltd
Address:
30 Futura Road
Keysborough
VIC, 3173
AUS
Telephone: +61 3 9798 4944
Emergency Tel: +1800 039 008
Emergency Tel: +61 3 9573 3112
Fax: 03 9798 5877

Company: AV Syntec Pty Ltd
Address:
15-21 Argon Street
Carole Park
QLD, 4300
AUS
Telephone: +61 7 3271 3411
Emergency Tel: +1800 039 008
Emergency Tel: +61 3 9573 3112
Fax: 07 3271 1852

HAZARD RATINGS

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

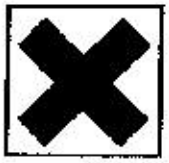
CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO DIRECTIVE 67/548/EEC AND ITS AMENDMENTS.

CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.

According to the Criteria of NOHSC, and the ADG Code.

continued...

Section 2 - HAZARDS IDENTIFICATION ...



POISONS SCHEDULE

S6

RISK

Harmful by inhalation and if swallowed.
Irritating to eyes, respiratory system and skin.
May cause SENSITISATION by inhalation and skin contact.
Skin contact may produce health damage*.
Cumulative effects may result following exposure*.
Limited evidence of a carcinogenic effect*.
May possibly affect fertility*.
* (limited evidence)

SAFETY

Keep container in a well ventilated place.
Avoid exposure - obtain special instructions before use.
Keep container tightly closed.
Take off immediately all contaminated clothing.
In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
If you feel unwell contact Doctor or Poisons Information Centre. (Show the label if possible).

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
urethane prepolymer as		
polyurethane prepolymer resin	63439-95-2	25-35
4,4'-diphenylmethane diisocyanate (MDI)	101-68-8	15-25
MDI oligomer	9016-87-9	15-25
fillers/extenders		10-30
additives		1-9

Section 4 - FIRST AID MEASURES

SWALLOWED

If poisoning occurs, contact a doctor or Poisons Information Centre.
- 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 unconsciousness

continued...

Section 4 - FIRST AID MEASURES ...

• Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
• Seek medical advice.

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.
• Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If solids or aerosol mists are deposited upon the skin:
• Flush skin and hair with running water (and soap if available).
• Remove any adhering solids with industrial skin cleansing cream.
• DO NOT use solvents.
• Seek medical attention in the 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.
• Transport to hospital, or doctor, without delay.

NOTES TO PHYSICIAN

For sub-chronic and chronic exposures to isocyanates:
• This material may be a potent pulmonary sensitiser which causes bronchospasm even in patients without prior airway hyperreactivity.
• Clinical symptoms of exposure involve mucosal irritation of respiratory and gastrointestinal tracts.
• Conjunctival irritation, skin inflammation (erythema, pain vesiculation) and gastrointestinal disturbances occur soon after exposure.
• Pulmonary symptoms include cough, burning, substernal pain and dyspnoea.
• Some cross-sensitivity occurs between different isocyanates.
• Noncardiogenic pulmonary edema and bronchospasm are the most serious consequences of exposure. Markedly symptomatic patients should receive oxygen, ventilatory support and an intravenous line.
• Treatment for asthma includes inhaled sympathomimetics (epinephrine [adrenalin], terbutaline) and steroids.
• Activated charcoal (1 g/kg) and a cathartic (sorbitol, magnesium citrate) may be useful for ingestion.
• Mydriatics, systemic analgesics and topical antibiotics (Sulamyd) may be used for corneal abrasions.
• There is no effective therapy for sensitised workers.
[Ellenhorn and Barceloux; Medical Toxicology]
NOTE: Isocyanates cause airway restriction in naive individuals with the degree of response dependant on the concentration and duration of exposure. They induce smooth muscle contraction which leads to bronchoconstrictive episodes. Acute changes in lung function, such as decreased FEV1, may not represent sensitivity.
[Karol & Jin, Frontiers in Molecular Toxicology, pp 56-61, 1992]

continued...

Section 4 - FIRST AID MEASURES ...

Section 5 - FIRE FIGHTING MEASURES

SMALL FIRES
DO NOT use water.
Dry chemical powder.
Carbon dioxide.
• Protein foam.
LARGE FIRES
Flooding quantities of water only.
• Small quantities of water in contact with hot liquid may react violently with generation of a large volume of rapidly expanding hot sticky semi-solid foam.
• Presents additional hazard when fire fighting in a confined space.
• Cooling with flooding quantities of water reduces this risk.

FIRE FIGHTING
Clear area of personnel.
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 courses.
Avoid spraying water onto liquid pools.
DO NOT approach containers suspected to be hot.
Cool fire exposed containers with water spray from a protected location.
If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD
• Combustible.
• Moderate fire hazard when exposed to heat or flame.
• When heated to high temperatures decomposes rapidly generating vapour which pressures and may then rupture containers with release of flammable and highly toxic isocyanate vapour.
• Burns with acrid black smoke and poisonous fumes.
• Combustion yields traces of highly toxic hydrogen cyanide HCN, plus toxic nitrogen oxides NOx and carbon monoxide.

FIRE INCOMPATIBILITY
Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous
Avoid reaction with water, alcohols, strong bases, alkalis, metal compounds and detergent solutions. Reacts with water, may generate a large volume of foam, carbon dioxide gas (CO_2) and heat. Foaming in confined space may produce pressure. Isocyanates will attack and embrittle some plastics and rubbers.

HAZCHEM

None

Personal Protective Equipment

PERSONAL PROTECTION EQUIPMENT
Breathing apparatus.
Gas tight chemical resistant suit.
Limit exposure duration to 1 BA set - 30 mins.

continued...

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

Clean up all spills immediately.
Shut off all possible sources of ignition and increase ventilation.
Avoid contact with skin and eyes.
Wear protective clothing, impervious gloves and safety glasses.
Contain and absorb spill with sand, earth, inert material or vermiculite.
Sweep up.
Collect residues and place in labelled plastic containers with vented lids

MAJOR SPILLS

Pollutant - contain spillage . Clear area of personnel.
• Wear full body protective clothing with breathing apparatus.
• Prevent, by any means available, spillage from entering drains or water courses.
Shut off all possible sources of ignition and increase ventilation.
No smoking or naked lights within area.
Stop leak if safe to do so.
Contain and absorb spill with sand, earth, inert material or vermiculite.
Collect residues and seal in labelled drums for disposal
Wash spill area with detergent and water.
DO NOT USE WATER OR NEUTRALISING AGENTS INDISCRIMINATELY ON LARGE SPILLS.

EMERGENCY RESPONSE PLANNING GUIDLINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:
4,4'-diphenylmethane diisocyanate (MDI) 25 mg/m³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:
4,4'-diphenylmethane diisocyanate (MDI) 2 mg/m³

other than mild, transient adverse effects without perceiving a clearly defined odour is:
4,4'-diphenylmethane diisocyanate (MDI) 0.2 mg/m³

American Industrial Hygiene Association (AIHA)

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

Handle and open container with care
Use good occupational work practice.
Avoid breathing vapours and contact with skin and eyes
Avoid contact with moisture.
Avoid physical damage to containers.

continued...

Section 7 - HANDLING AND STORAGE

Wear protective clothing and gloves when handling containers.
Use in a well-ventilated area
Local exhaust ventilation may be required for safe working, i.e. to keep exposures below required standards, otherwise PPE is required.
until atmosphere has been checked.
Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Always wash hands with soap and water after handling. Work clothes should be laundered separately.
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

SUITABLE CONTAINER

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

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers

- Avoid contamination with water, alkalies and detergent solutions.
- Material reacts with water and generates gas, pressurises containers with even drum rupture resulting.
- DO NOT reseal container if contamination is suspected.
- Open all containers with care.

Avoid contamination of water, foodstuffs, feed or seed.

STORAGE REQUIREMENTS

Keep dry . Store between 15 and 30 deg. C.

- Store in original containers.
- Keep containers securely sealed.
- No smoking, naked lights or ignition sources.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

No data available for polyurethane prepolymer resin as (CAS: 63439-95-2) / (CAS: 127289-54-7) / (CAS: 70644-77-8) / (CAS: 141910-67-0) / (CAS: 144637-69-4) / (CAS: 26447-40-5 *) / (CAS: 9016-87-9)

None assigned. Refer to individual constituents.

INGREDIENT DATA

For each of the following
POLYURETHANE PREPOLYMER RESIN:

continued...

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

MDI OLIGOMER:
isocyanates, all as NCO (Mol.Wt: 42.00)
ES TWA: 0.02 mg/m³; STEL: 0.07 mg/m³ sensitiser
MEL TWA: 0.02 mg/m³; STEL: 0.07 mg/m³ sensitiser
Some jurisdictions require that health surveillance be conducted on occupationally exposed workers. This should emphasise:
· demography, occupational and medical history and health advice
· completion of a standardised respiratory questionnaire
· physical examination of the respiratory system and skin
· standardised respiratory function tests such as FEV1, FVC and FEV1/FVC

4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI):
TLV TWA: 0.02 ppm [ACGIH]
TLV TWA: 0.005 ppm [ACGIH]
PEL Ceiling: 0.02 ppm, 0.2 mg/m³ [OSHA Z1] [OSHA Z1]
isocyanates, all as NCO (Mol.Wt: 42.00)
ES TWA: 0.02 mg/m³; STEL: 0.07 mg/m³ sensitiser
MEL TWA: 0.02 mg/m³; STEL: 0.07 mg/m³ sensitiser
Some jurisdictions require that health surveillance be conducted on occupationally exposed workers. This should emphasise:
· demography, occupational and medical history and health advice
· completion of a standardised respiratory questionnaire
· physical examination of the respiratory system and skin
· standardised respiratory function tests such as FEV1, FVC and FEV1/FVC
diphenyl methane diisocyanate as methylene bisphenyl isocyanate MDI
TLV TWA: 0.005 ppm; 0.051 mg/m³ as -NCO [ACGIH]
MAK value: 0.05 mg/m³
Designated S in List of MAK values: Danger of sensitization
MAK Category I Peak Limitation: For local irritants Allows excursions of twice the MAK value for 5 minutes at a time, 8 times per shift.
MAK IIIB: Substances suspected of having carcinogenic potential
MAK Group IIc: Substances with MAK Values but no pregnancy risk group classification. These are substances which have been investigated but for which no information regarding possible damage to the foetus/embryo was found. Mention calls attention to the absence of adequate data.
MAK values, and categories and groups are those recommended within the Federal Republic of Germany
REL TWA: 0.005 ppm, REL C 0.02 ppm/10 min [NIOSH 1985]
Odour Threshold Value: 0.39 ppm
IDLH Level: 75 mg/m³
Mean MDI exposures of less than 0.003 ppm appear to have no acute or chronic effect on pulmonary function.
MDI produces identical toxicological responses to those produced by TDI and the recommended TLV-TWA is identical for the two isocyanates. Exposure at or below the recommended value is thought to protect the worker against pulmonary function decrements as well as to minimise the potential for respiratory tract sensitisation. Individuals who may be hypersusceptible or otherwise unusually responsive to exposure to certain industrial chemicals may not adequately protected from adverse health effects caused by MDI at the recommended TLV-TWA. Ceiling values recommended by NIOSH and OSHA are synonymous with normal excursions allowable for exposures to the TLV-TWA (in excess of 3 x TLV-TWA for no more than a total of 30 minutes during a work day but in any case not exceeding 5 x TLV-TWA).

PERSONAL PROTECTION

continued...

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...




EYE

- Chemical goggles.
- Full face shield.
- Contact lenses pose a special hazard; soft contact lenses may absorb irritants and all lenses concentrate them.

HANDS/FEET

Neoprene rubber gloves or Butyl rubber gloves or PVC gloves
Rubber boots
DO NOT use skin cream unless necessary and then use only minimum amount.
Isocyanate vapour may be absorbed into skin cream and this increases hazard.

OTHER

Overalls or PVC apron
- Ensure that there is ready access to eye wash unit

DO NOT return unused product to containers.

ENGINEERING CONTROLS

Use in a well-ventilated area
Spraying must be carried out in conditions conforming to local State regulations. Local exhaust ventilation and full face air supplied breathing apparatus (hood or helmet type) are required. Unprotected personnel must vacate the spraying area.
Note: Organic vapour respirators are not protection for sensitised workers.
Refer to protective measures for other components used with this product. Avoid breathing dust when sanding. If dust inhalation risk exists wear S.A.A. approved dust respirator. If possible use wet sanding techniques to avoid generating dust.
Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant	Air Speed
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone or rapid air motion)	1-2.5 m/s (200-500 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in	4: Small hood-local control only

continued...

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

motion

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min.) for extraction of solvents generated by spraying at a point 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Cream coloured viscous liquid with a fight odour; does not mix with water.

PHYSICAL PROPERTIES

Liquid.
Does not mix with water.
Sinks in water.

Molecular Weight: Not available
Melting Range (°C): Not available
Solubility in water (g/L): Immiscible
pH (1% solution): Not applicable.
Volatile Component (%vol): Nil @ 38 C.
Relative Vapour Density (air=1): Not available
Lower Explosive Limit (%): Not available.
Autoignition Temp (°C): >200
State: Liquid

Boiling Range (°C): 208 @ 5 mm.
Specific Gravity (water=1): 1.03
pH (as supplied): Not applicable
Vapour Pressure (kPa): Negligible @ 25
Evaporation Rate: Not available
Flash Point (°C): Not applicable
Upper Explosive Limit (%): Not available.
Decomposition Temp (°C): >140

log Kow : 1.9

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Presence of water and Presence of incompatible materials
Presence of elevated temperatures. Storage in unsealed containers
DO NOT store above 50 deg. C.

continued...

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments
The liquid is highly discomforting and harmful if swallowed
Ingestion may result in nausea, abdominal irritation, pain and vomiting

EYE

The liquid is highly discomforting to the eyes and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated
The vapour is discomforting to the eyes
The material may produce moderate eye irritation leading to inflammation.
Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

The material is moderately discomforting to the skin if exposure is prolonged and may cause allergic skin reactions , skin sensitisation and repeated exposure may cause sensitisation and/or allergic reactions
Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.
Bare unprotected skin should not be exposed to this material
Toxic effects may result from skin absorption

INHALED

The vapour/mist may be highly irritating to the upper respiratory tract and lungs; the response may be severe enough to produce bronchitis and pulmonary oedema. Possible neurological symptoms arising from isocyanate exposure include headache, insomnia, euphoria, ataxia, anxiety neurosis, depression and paranoia. Gastrointestinal disturbances are characterised by nausea and vomiting.
Pulmonary sensitisation may produce asthmatic reactions ranging from minor breathing difficulties to severe allergic attacks; this may occur following a single acute exposure or may develop without warning for several hours after exposure. Sensitized people can react to very low doses, and should not be allowed to work in situations allowing exposure to this material. Continued exposure of sensitised persons may lead to possible long term respiratory impairment.
Inhalation hazard is increased at higher temperatures.
Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping.
Inhalation of vapour may aggravate a pre-existing respiratory condition such as asthma, bronchitis, emphysema

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by inhalation of vapour , skin contact/absorption and inhalation of vapour from the curing material
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. Isocyanate vapours are irritating to the airways and can cause their inflammation, with wheezing, gasping, severe distress, even loss of consciousness and fluid in the lungs. Nervous system symptoms that may occur include headache, sleep disturbance, euphoria, inco-ordination, anxiety, depression and paranoia. Digestive effects include nausea and vomiting.
Breathing difficulties may occur unpredictably after a period of tolerance and after skin contact. Allergic inflammation of the skin can occur, with rash, itching, blistering, and swelling of the hands and feet. Sensitive people can react to very low levels and should not be exposed to this material.

continued...

Section 11 - TOXICOLOGICAL INFORMATION ...

AV515

Not available. Refer to individual constituents.
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

POLYURETHANE PREPOLYMER RESIN:
TOXICITY IRRITATION
similar product
Oral (rat) LD50: 15000 mg/kg
Eye (rabbit): mild
Skin (rabbit): nil [BAYER]

alkylphenol - reaction product, generated in use
Oral (rat) LD50: 950 mg/kg
Dermal (rabbit) LD50: > 3000 mg/kg
Eye (rabbit): slight
Skin (rabbit): SEVERE [BAYER]

4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI):
TOXICITY
Oral (rat) LDLo: 9200 mg/kg
Inhalation(human)TCLo:0.13 ppm/30 mins
Inhalation (rat) LC50: 178 mg/m3/4h
Oral (mouse) LD50: 2200 mg/kg
Dermal (rabbit) LD50: > 6200 mg/kg *
IRRITATION
Skin (rabbit): 500 mg /24 hours
Eye (rabbit): 0.10 mg moderate
Dermal Sensitiser *
Respiratory Sensitiser (g.pig) *
[* = Bayer CCINFO 2133615]

The substance is classified by IARC as Group 3:
NOT classifiable as to its carcinogenicity to humans.
Evidence of carcinogenicity may be inadequate or limited in animal testing.

MDI OLIGOMER:
TOXICITY IRRITATION
product
Oral (rat) LD50: 43000 mg/kg
Dermal (rabbit) LD50: >9400 mg/kg
Inhalation (rat) LC50: 490 mg/m3/4h
Eye (rabbit): 100 mg - mild
The substance is classified by IARC as Group 3:
NOT classifiable as to its carcinogenicity to humans.
Evidence of carcinogenicity may be inadequate or limited in animal testing.

Section 12 - ECOLOGICAL INFORMATION

No data for AV515.
Refer to data for ingredients, which follows:

POLYURETHANE PREPOLYMER RESIN:

No data for polyurethane prepolymer resin.

4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI):
Hazardous Air Pollutant: No
Hazardous Air Pollutant: No
Half-life Soil - High (hours): 24
Half-life Soil - Low (hours): 6
Half-life Air - High (hours): 5.8
Half-life Air - Low (hours): 0.58
Half-life Surface water - High (hours): 24

continued...

Section 12 - ECOLOGICAL INFORMATION ...

Half-life Surface water - Low (hours): 6
Half-life Ground water - High (hours): 24
Half-life Ground water - Low (hours): 6
Aqueous biodegradation - Aerobic - High (hours): 672
Aqueous biodegradation - Aerobic - Low (hours): 168
Aqueous biodegradation - Anaerobic - High (hours): 2688
Aqueous biodegradation - Anaerobic - Low (hours): 672
Photooxidation half-life air - High (hours): 5.8
Photooxidation half-life air - Low (hours): 0.58
First order hydrolysis half-life (hours): 12

log Kow : 1.9
Toxicity Fish: LC50(96)95.24-134.37mg/L

MDI OLIGOMER:

Aquatic toxicity:
Fish (Brachydanio rerio) 96h LC0: >1000 mg/l *
(Daphnia) 24h EC50: >1000 mg/l *
Bacterial toxicity (activated sludge microorganism) 3h EC50: >100 mg/l *

* [Bayer]

Section 13 - DISPOSAL CONSIDERATIONS

- DO NOT recycle spilled material.
- Consult State Land Waste Management Authority for disposal.
- Neutralise spill material carefully and decontaminate empty containers and spill residues with 10% ammonia solution plus detergent or a proprietary decontaminant prior to disposal.
- DO NOT seal or stopper drums being decontaminated as CO2 gas is generated and may pressurise containers.
- Puncture containers to prevent re-use.
- Bury or incinerate residues at an approved site.

Section 14 - TRANSPORTATION INFORMATION

Shipping Name:
NONE
Dangerous Goods Class: None
UN/NA Number: None
ADR Number: None
Packing Group: None
Additional Shipping Information:
International Transport Regulations:
IMO: None

HAZCHEM

None

Section 15 - REGULATORY INFORMATION

continued...

Section 15 - REGULATORY INFORMATION ...

POISONS SCHEDULE

S6

REGULATIONS

4,4'-diphenylmethane diisocyanate (MDI) (CAS: 101-68-8) is found on the following regulatory lists:
Australian Inventory of Chemical Substances (AICS)

MDI oligomer (CAS: 9016-87-9) is found on the following regulatory lists:
Australian Inventory of Chemical Substances (AICS)

Section 16 - OTHER INFORMATION

Issue Date: Wed 13-Jun-2001
Print Date: Wed 9-Mar-2005