

FORTIS AD 512 STD & LF**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Product Name Fortis AD 512 STD & LF
Product Code -
Other Names -
Product Use Adhesive
Supplier Name Fortis Adhesives and Coatings
Address 177-179 Ordish Road
Dandenong South VIC 3175
Telephone Number 03 9706 5448
Emergency Telephone 0425 883 566

2. HAZARDS IDENTIFICATION**HAZARDOUS SUBSTANCE. NON DANGEROUS GOODS.**

Classified as hazardous according to the criteria of Safe Work Australia.

Hazards Xn - Harmful

Risk Phrases R36/37/38 - Irritating to eyes, respiratory system and skin.
R40 - Limited evidence of a carcinogenic effect.
R42/43 - May cause sensitisation by inhalation and skin contact.

Safety Phrases S1/2 - Keep locked up and out of reach of children.
S23 - Do not breathe vapour/spray.
S36/37- Wear suitable protective clothing, gloves.
S38 - In case of insufficient ventilation, wear suitable respiratory equipment.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient (common name)	CAS Number	Proportion
Inert filler	Proprietary	30-60%
Poly[oxy(methyl-1,2-ethanediyl)	53862-89-8	10-30%
4,4-diphenylmethane diisocyanate (MDI)	101-68-8	<10%
Diphenyl methane diisocyanate	9016-87-9	<10%

4. FIRST AID MEASURES

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention.

Ingestion Immediately rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water. Never give anything by mouth

	to an unconscious person. Begin artificial respiration if breathing has stopped. Use mouth to nose rather than mouth to mouth. Seek immediate medical attention.
Skin	If skin or hair contact occurs, immediately remove contaminated clothing and wash skin and hair thoroughly with soap and plenty of water. If swelling, redness, blistering, or irritation occurs seek medical attention. Traces of cured material (after water contact) are not considered hazardous. Do NOT remove with solvent. Allow to peel off naturally or hasten by soaking in tepid to warm water.
Eyes	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. Seek immediate medical attention.
Notes to Physician	Treat symptomatically. Effects may be delayed. Following severe exposures the patient should be kept under medical supervision for at least 48 hours.

5. FIRE FIGHTING MEASURES

	For major fires call the Fire Brigade. Ensure that an escape path is available from any fire.
Suitable Extinguishing Media	Water fog, water spray, foam and dry agent (carbon dioxide, dry chemical powder).
Hazardous Combustion Products	Carbon oxides, nitrogen oxides, isocyanate vapours and hydrogen cyanide.
Firefighting Equipment	Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.
Unusual Fire or Explosion Hazards	No information available.
Hazchem Code	Not allocated.

6. ACCIDENTAL RELEASE MEASURES

Spills	<p>In the event of a major spill, prevent spillage from entering drains or water courses.</p> <p>Wear full protective equipment including air- line respirator or self-contained breathing apparatus complying with Australian Standard AS 1716, protective clothing and nitrile, rubber, viton, teflon or some polyvinyl alcohol (PVA) gloves. Evacuate general area and deny access to unnecessary and unprotected personnel. Ventilate area of leak or spill.</p> <p>Large spills:</p> <p>Absorb spillages onto sand, earth or any suitable adsorbent material. Leave to react for at least 30 minutes. Do not absorb onto sawdust or other combustible materials. Shovel into open-top drums for further decontamination. Wash the spillage area with water. Test the atmosphere for MDI vapour to ensure safe-working conditions prevail prior to re-entry into contaminated area.</p> <p>Cured material can only be removed by abrasion.</p>
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Small spills:

Quickly wipe up material before it cures, with cloth or absorbent paper avoiding skin contact. Uncured material will dissolve in acetone or acetone based nail polish remover. Cured material can only be removed by abrasion.

7. HANDLING AND STORAGE

Handling	Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Provide adequate ventilation.
Storage	Store in a cool, dry, well-ventilated area away from direct sunlight. Keep containers tightly closed when not in use. Protected against physical damage. Inspect regularly for damage or leaks. Keep dry. Reacts with water - may lead to drum rupture. Store away from acids, alcohols, oxidizing agents, moisture and sources of heat or ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards Safe Work Australia	Isocyanates, all (as -NCO): TWA: - ppm /0.02 mg/m ³ STEL: - ppm / 0.07 mg/m ³
Engineering Controls	Total enclosure with good general ventilation is recommended when isocyanates are used. If total enclosure is not possible, local exhaust ventilation is recommended when vapours can be released in excess of established airborne exposure limits. Where local exhaust ventilation is installed, exhaust vapours should not be vented to the exterior in such a manner as to create a hazard.
Respiratory Protection	If high airborne concentrations of the isocyanates are present and minimising exposure by ventilation is not possible, especially during spray-painting or maintenance of machine and ventilation systems, air-line respirators or self-contained breathing apparatus complying with Australian Standard AS 1716 must be used.
Eye Protection	Safety glasses with top and side shields. See Australian Standards AS 1336 and AS/NZS 1337 for more information.
Skin Protection	Protective equipment being resistant to isocyanates - nitrile, rubber, viton, teflon or some polyvinyl alcohol (PVA) gloves and overalls should be worn as specified in Australian Standard AS 2161
Hygienic Practices	Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brown thixotropic paste
Odour	No information available

Solubility in Water	Insoluble
Boiling Point	180°C
Evaporation Rate (Air=1)	No information available
Vapour Pressure (kPa)	No information available
Vapour Density	No information available
Specific Gravity (g/cm³)	1.2
Flash Point (Closed cup)	>100°C
Flammable Limit – Lower	No information available
Flammable Limit – Upper	No information available
Ignition Temperature	No information available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of storage and handling.
Incompatible Materials	Alcohols, acids and oxidizing agents.
Hazardous Decomposition Products	Carbon oxides, nitrogen oxides, isocyanate vapours and hydrogen cyanide.
Hazardous Polymerization Conditions to Avoid	Will not occur Moisture and heat, open flames or other sources of ignition.

11. TOXICOLOGICAL INFORMATION

Toxicity	<p>4,4-diphenylmethane diisocyanate (MDI): Oral LD₅₀ (rat) = 31690 mg/kg Inhalation TC_{Lo} (rat) = 130 ppm/30 minutes Inhalation LC₅₀ (rat) = 187 mg/m³ Irritation data: Eye- rabbit = 100 µg - mild Harmful by inhalation or ingestion. May be harmful through skin contact. Eye, skin and respiratory irritant. May cause allergic sensitization.</p> <p>Diphenylmethane 4,4 di-isocyanate: Oral LD₅₀ (rat) = 31690 mg/kg Inhalation LC₅₀ (rat) = 178 mg/m³/4 hour Inhalation TC_{Lo} (human) = 130 ppm/30 minutes Eyes (rabbit): 100 µg - Draize - MILD. Harmful by inhalation or ingestion. May be harmful through skin contact. Eye, skin and respiratory irritant. May cause allergic sensitization.</p> <p>Fetotoxicity: No birth defects were seen in two independent animal (rat) studies. Fetotoxicity was observed at doses that were highly toxic (including lethal) to the mother. Fetotoxicity was not observed at doses that were not maternally toxic. The doses used in these studies were maximal, respirable concentrations, which were well in excess of defined occupational exposure limits.</p> <p>Mutagenicity: There is no substantial evidence of mutagenic potential</p>
Routes of Exposure	Inhalation, ingestion, eye and skin
Acute Health Effects	Inhalation: Repeated inhalation of vapour or spray mists at levels above the occupational exposure standard could

cause respiratory sensitization. Symptoms may include irritation of the eyes, nose, throat and lungs, possibly with dryness of the throat, tightness of the chest and difficulty breathing. Onset of respiratory symptoms may be delayed for several hours after exposure. A hyper reactive response may develop to even minimal concentrations of MDI in sensitized individuals.

Ingestion: Swallowing can result in nausea and abdominal pain.
 Eye: Causes eye irritation.
 Skin: Contact with skin may result in irritation. May cause skin sensitization in sensitive individuals. Repeated or prolonged skin contact may lead to allergic contact dermatitis.

Chronic Health Effects Repeated or prolonged contact may cause sensitization by inhalation and skin contact.
 There are reports that chronic exposure to isocyanates by inhalation, may result in a permanent decrease in lung function.
 No information available.

Existing Conditions Aggravated by Exposure
Carcinogenicity 4,4-diphenylmethane diisocyanate (MDI) and diphenyl methane diisocyanate are classified by IARC as a Group 3 – Not classifiable as to its carcinogenicity to humans.
 4,4-diphenylmethane diisocyanate (MDI) is classified as Carcinogen Category 3 by Safe Work Australia.

12. ECOLOGICAL INFORMATION

Ecotoxicity Prevent spillage from entering drains or water courses.
 Material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100mg/L in most sensitive species).
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods and containers Dispose according to applicable local and state government regulations.
Special precautions for landfill or incineration Please consult your state Land Waste Management Authority for more information

14. TRANSPORT INFORMATION

Not classified as a dangerous good according to the Australian Code for the Transport of Dangerous goods by road or rail.

UN Number Not applicable
Proper Shipping Name Not applicable
Dangerous Goods Class Not applicable
Hazchem Code Not applicable
Packing Group Not applicable
Special Precautions Not applicable

15. REGULATORY INFORMATION

Poly[oxy(methyl-1,2-ethanediyl), 4,4-diphenylmethane diisocyanate (MDI) and diphenyl methane diisocyanate are listed in the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

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Prepared by MSDS.COM.AU Pty Ltd www.msds.com.au

Abbreviations Used
IARC: International Agency for Research on Cancer
NTP: National Toxicology Program (U.S.)
OSHA: Occupational Safety and Health Administration (U.S.)
STEL: Short term exposure limit
TWA: Time weighted average

Emergency Contacts

Fortis Adhesives and Coatings	03 9706 5448
Fortis Adhesives and Coatings – Emergency Number	0425 883 566
Police and Fire Brigade	000
Poisons Information Centre	13 11 26

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Please read instructions / label before using product.

This MSDS is prepared in accord with the Safe Work Australia document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]