MATERIAL SAFETY DATA SHEET
AP ADHESIVE™

Dryvit Item Number: 23104
MSDS Number 005C

Version: 5
Date Issued: 08/17/2010
Replaces: 04/30/2007

Section 01 - Product Information

Identification of the company:	**Dryvit Systems Canada** a division of RPM Canada 129 Ringwood Drive Stouffville, Ontario L4A 8A2 Telephone: +1 905 642 0444 Contact: EH&S Manager – ehs@dryvit.com
CHEMTREC:	
Domestic North America	800-424-9300
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Trade name: **AP Adhesive™**
Item number: 23104
Primary product use: Adhesive

Section 02 - Composition information on ingredients

CAS Number	Content (W/W)	Chemical name
14807-96-6	15.0 - 40.0 %	talc
101-68-8	7.0 - 13.0 %	Diphenylmethane-4,4'-diisocyanate (MDI)
64742-46-7	7.0 - 13.0 %	Distillates (petroleum), hydrotreated middle
26447-40-5	1.0 - 5.0 %	Methylenediphenyl diisocyanate
9016-87-9	1.0 - 5.0 %	P-MDI

Section 03 - Hazards identification

Emergency overview

WARNING: CONTAINS DIPHENYLMETHANE DIISOCYANATE (CAS No. 101-68-8). INHALATION OF MDI MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ISOCYANATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING.
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

State of matter: solid
Colour: tan
Odour: oily

Potential health effects

Primary routes of exposure:
Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:
May cause sensitization by inhalation.

Irritation / corrosion:
Irritating to eyes, respiratory system and skin.

Sensitization:
Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract. Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

Signs and symptoms of overexposure:
In sensitized individuals, sensitization reactions may be elicited by structurally similar substances. Respiratory sensitization may result in allergic (asthma-like) signs in the lower respiratory tract including wheezing, shortness of breath and difficulty breathing, the onset of which may be delayed. Repeated inhalation of high concentrations may cause lung damage, including reduced lung function, which may be permanent. Substances eliciting lower respiratory tract irritation may worsen the asthma-like reactions that may be produced by product exposures.

Section 04 - First aid measures

General advice:
Remove contaminated clothing.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:
Wash affected areas thoroughly with soap and water. Consult a doctor if skin irritation persists.

If in eyes:
In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:
Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Note to physician
Antidote: Specific antidotes or neutralizers to isocyanates do not exist.
Treatment: Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

Section 05 - Fire fighting measures

Flash point:	> 200 °F > 93.34 °C	
Autoignition:		No data available.
Lower explosion limit:	1.6 %(V)	
Upper explosion limit:	10.2 %(V)	
Self-ignition temperature:		not self-igniting

Suitable extinguishing media:
water fog, foam, carbon dioxide

Hazards during fire-fighting:
nitrous gases, fumes/smoke, isocyanate, vapour

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Section 06 - Accidental release measures

Personal precautions:
Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:
Do not discharge into drains/surface waters/groundwater.

Section 07 - Handling and storage

Handling

General advice:
Avoid contact with the skin, eyes and clothing. Avoid excessive temperatures. Avoid humidity. Use only with adequate ventilation and avoid high concentrations of vapors.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. If exposed to fire, keep containers cool by spraying with water.

Storage

General advice:
Keep container tightly closed and in a well-ventilated place.

Storage stability:
Storage temperature: 65 - 104 °F Protect against moisture.

Section 08 - Exposure controls / personal protection

Components with workplace control parameters

Diphenylmethane-4,4'-diisocyanate (MDI)	OSHA	CLV 0.02 ppm 0.2 mg/m3
	ACGIH	TWA value 0.005 ppm ;
talc	OSHA	TWA value 20 millions of particles per cubic foot of air ; TWA value 2.4 millions of particles per cubic foot of air Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.1 mg/m3 Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.3 mg/m3 Total dust ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.
	ACGIH	TWA value 2 mg/m3 Respirable fraction ; The value is for particulate matter containing no asbestos and <1% crystalline silica.

Advice on system design:
Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:
When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place.

Hand protection:
Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:
Safety glasses with side-shields. Wear face shield if splashing hazard exists.

Body protection:
Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:
Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

Section 09 - Physical and chemical properties

Form:	paste	
Odour:	oily, mild	
Colour:	tan	
pH value:		neutral to slightly alkaline
Melting point:		not applicable
Vapour pressure:		No data available.
Density:	1.26 g/cm3	
Bulk density:	1,800 - 2,400 kg/m3	
Vapour density:		Heavier than air.
Partitioning coefficient n-octanol/water (log Pow):		No data available.
Viscosity, dynamic:		No data available.
Solubility in water:		slightly soluble

Section 10 - Stability and reactivity

Conditions to avoid:
Avoid moisture. Avoid prolonged exposure to extreme heat. Avoid sources of ignition.

Substances to avoid:
water, alcohols, strong bases, oxidizing agents, Substances/products that react with isocyanates.

Hazardous reactions:
The product is chemically stable.

Decomposition products:
Hazardous decomposition products: aromatic isocyanates, gases/vapours, carbon oxides, nitrogen oxides

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

Section 11 - Toxicological information

Acute toxicity

Information on: Distillates (petroleum), hydrotreated middle
Assessment of acute toxicity:
Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Of moderate toxicity after short-term inhalation.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI) Assessment of acute toxicity:
Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Oral:

No data available.

Inhalation:

No data available.

Dermal:

No data available.

Irritation / corrosion

Information on: Distillates (petroleum), hydrotreated middle
Assessment of irritating effects:
May cause slight irritation to the skin. Not irritating to the eyes.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)
Assessment of irritating effects:
Irritating to eyes and skin.

Information on: Methylenediphenyl diisocyanate
Assessment of irritating effects:
Irritating to eyes and skin.

Information on: P-MDI
Assessment of irritating effects:
Irritating to eyes, respiratory system and skin.

Sensitization

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible. Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

Information on: Methylenediphenyl diisocyanate
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Information on: P-MDI
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Repeated dose toxicity

Information on: talc
Assessment of repeated dose toxicity:
The substance may cause damage to the lung after repeated inhalation.

Carcinogenicity

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)
Indication of possible carcinogenic effect in animal tests. However, the relevance of this result for humans is unclear.
Information on: P-MDI
Based on the ingredients there is a suspicion of a carcinogenic effect.

Section 12 - Ecological information

Other adverse effects:

Do not release untreated into natural waters. Do not allow to enter soil, waterways or waste water channels. The product has not been tested. The statement has been derived from the properties of the individual components.

Section 13 - Disposal considerations

Waste disposal of substance:
Incinerate or dispose of in a licensed facility. Observe all local regulations.

Container disposal:
Do not reuse empty containers.

Section 14 - Transport information

Land transport
USDOT — Not classified as a dangerous good under transport regulations

Sea transport
IMDG — Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO — Not classified as a dangerous good under transport regulations

Section 15 - Regulatory information

Federal Regulations

Registration status:
Chemical — TSCA, US released / listed

OSHA hazard category: IARC 1, 2A or 2B carcinogen; Chronic target organ effects reported; OSHA PEL established; ACGIH TLV established

EPCRA 311/312 (Hazard categories): Acute; Chronic

EPCRA 313:

CAS Number	Chemical name
101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)
9016-87-9	P-MDI

State regulations

State RTK	CAS Number	Chemical name
MA, NJ, PA	14807-96-6	talc
MA, NJ, PA	101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)
NJ	26447-40-5	Methylenediphenyl diisocyanate

CA Prop. 65:
THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

WHMIS Regulatory Status
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Section 16 - Other information

HMIS III rating
Health: 2¤ **Flammability: 1** **Physical hazard: 1**

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.