

Safety Data Sheet

AP ADHESIVE



Revision date: 06/28/2016
Version: 2.1

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1. Identification

Product identifier used on the label: AP Adhesive
Recommended use of the chemical and restriction on use
Recommended use*: for industrial and professional users

* The Recommended use identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied. Including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Supplier:
Dryvit Systems, Inc
One Energy Way,
West Warwick, RI 02893

Phone Number: (401) 822-4100
Toll Free Number: (800) 556-7752

E-mail Address ehs@dryvit.com

Emergency telephone number

Emergency telephone number Chemtrec: +1 703-527-3887 ex-USA
Chemtrec: 1-800-424-9300 USA

Other means of identification

Chemical family: No data available.

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR part 1910.1200

Classification of the product

| | | |
|-------------------|--------------------------------------|--|
| Acute Tox. | 4 (Inhalation - mist) | Acute toxicity |
| Skin Corr./Irrit. | 2 | Skin corrosion/irritation |
| Eye Dam./Irrit. | 2A | Serious eye damage/eye irritation |
| Resp. Sens. | 1 | Respiratory sensitization |
| Skin Sens. | 18 | Skin sensitization |
| STOT SE | 3 (irritating to respiratory system) | Specific target organ toxicity — single exposure |

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Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

Labeling of special preparations (GHS):

CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE 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 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. ANIMAL TESTS INDICATE THAT SKIN CONTACT MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION.

3. Composition / Information on Ingredients

Accordjgg to Regylatjog 2012 OSHA Hazard Commugjatjog Stagdard:29 CFR part 1910.1200

| CAS Number | Wejgbt % | Cbemjcal game |
|------------|-------------------|--|
| 58228-06-1 | >= 25.0 - < 50.0% | Isocyanic acid, polymethylenepolyphenylene ester, polymer with methylo xirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-p ropanediol (3:1) |
| 14807-96-6 | >= 25.0 - < 50.0% | talc |
| 101-68-8 | >= 10.0- < 15.0% | Diphenylmethane-4,4'-diisocyanate (MDI) |
| 64742-46-7 | >= 7.0- < 10.0% | Distillates (petroleum), hydrotreated middle |
| 26447-40-5 | >= 3.0 - < 5.0% | Methylenediphenyl diisocyanate |
| 9016-87-9 | >= 1.0- < 3.0% | P-MDI |
| 57636-09-6 | >= 0.1 - < 0.2% | Isocyanic acid, polymethylenepolyphenylene ester, polymer with .alpha.-hydro- .omega.-hydroxypoly(oxy-1,2-ethanediyl) |

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety. 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. If irritation develops, seek medical attention.

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. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Hazards: 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.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
foam, water spray, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

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

Advice for fire-fighters

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

Further information:

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Absorb isocyanate with suitable absorbent material (see § 40 CFR, sections 260, 264 and 265 for further information). Shovel into open container. Do not make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 to 1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

For large amounts; If temporary control of isocyanate vapor is required, a blanket of protein foam or other suitable foam (available from most fire departments) may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal.

For residues: The following measures should be taken for final cleanup: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes.
Dike spillage.

7. Handling and Storage

Precautions for safe handling

Provide suitable exhaust ventilation at the processing machines. Ensure thorough ventilation of stores and work areas. Avoid aerosol formation. When handling heated product, vapours of the product should be ventilated, and respiratory protection used. Wear respiratory protection when spraying. Danger of bursting when sealed gas tight. Protect against moisture. If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

Protection against fire and explosion:

Keep away from sources of ignition - No smoking. The relevant fire protection measures should be noted.

Conditions for safe storage, including any incompatibilities

No applicable information available.

Suitable materials for containers: tinned carbon steel (Tinplate)

Further information on storage conditions: Keep only in the original container in a cool, well-ventilated place. Protect from direct sunlight. Store protected against freezing.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

| | | |
|---|-----------|---|
| Diphenylmethane-4,4'-diisocyanate (MDI) | OSHA PEL | CLV 0.02 ppm 0.2 mg/m ³ ; CLV 0.02 ppm 0.2 mg/m ³ ; |
| | ACGIH TLV | TWA value 0.005 ppm ; |
| P-MDI | OSHA PEL | CLV 0.02 ppm 0.2 mg/m ³ ; CLV 0.02 ppm 0.2 mg/m ³ ; |
| | ACGIH TLV | TWA value 0.005 ppm ; |

| | | |
|--|-----------|---|
| talc | OSHA PEL | <p>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 exposure limit is calculated from the equation, $250/(\%SiO_2+5)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.</p> <p>TWA value 0.1 mg/m³ Respirable : The exposure limit is calculated from the equation, $10/(\%SiO_2+2)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.</p> <p>TWA value 0.3 mg/m³ Total dust ; The exposure limit is calculated from the equation, $30/(\%SiO_2+2)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.</p> <p>TWA value 2 mg/m³ Respirable dust ; TWA value 0.3 mg/m³ Total dust ; The exposure limit is calculated from the equation, $30/(\%SiO_2+2)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.</p> <p>TWA value 0.1 mg/m³ Respirable ; The exposure limit is calculated from the equation, $10/(\%SiO_2+2)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.</p> <p>TWA value 2.4 millions of particles per cubic foot of air Respirable ; The exposure limit is calculated from the equation, $250/(\%SiO_2+5)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.</p> |
| | ACGIH TLV | <p>TWA value 2 mg/m³ Respirable fraction ; The value is for particulate matter containing no asbestos and <1% crystalline silica.</p> |
| Distillates (petroleum), hydrotreated middle | OSHA PEL | <p>PEL 5 mg/m³ Mist ; TWA value 5 mg/m³ Mist</p> |
| | ACGIH TLV | <p>Included in the regulation, but with no data values - See the regulation for further details</p> <p>Exposure by all routes should be carefully controlled to levels as low as possible. TWA value 5 mg/m³ Inhalable fraction ;</p> |

Advice on system design:
No applicable information available.

Personal protective equipment**Respiratory protection:**

When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. 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. For emergency or non-routine, high exposure situations, including confined space entry, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves should be worn to prevent all skin contact. Suitable materials may include, chloroprene rubber (Neoprene), nitrile rubber (Buna N), chlorinated polyethylene, polyvinylchloride (Pylox), butyl rubber, depending upon conditions of use.

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Cover as much of the exposed skin as possible to prevent all skin contact. Suitable materials may include, saran-coated material, depending upon conditions of use.

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 or TLV value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

9. Physical and Chemical Properties

| | |
|---|---|
| Form: | paste |
| Odour: | oily, mild |
| Odour threshold: | No applicable information available. |
| Colour: | tan |
| pH value: | neutral to slightly alkaline |
| Melting point: | The product has not been tested. |
| Boiling point: | 172.22- 267.78 |
| Sublimation point: | - C |
| Flash point: | - C |
| Flammability: | No applicable information available. |
| Lower explosion limit: | 121.11 °C |
| Upper explosion limit: | not highly flammable |
| Autoignition: | 1.6 % (V) |
| Vapour pressure: | 10.2 % (V) |
| Relative density: | No data available. |
| Bulk density: | No data available. |
| Vapour density: | 1.26 |
| Partitioning coefficient n-octanol/water (log Pow): | 1,800 - 2,400 kg/m ³ |
| Self-ignition temperature: | Heavier than air. |
| Thermal decomposition: | No data available. |
| | not self-igniting |
| Viscosity, dynamic: | No decomposition if stored and handled as prescribed/indicated. |
| Viscosity, kinematic: | |
| Solubility in water: | No data available. |
| Solubility (quantitative): | No applicable information available. |
| Solubility (qualitative): | No applicable information available. |
| | slightly soluble |
| | No applicable information available. |

| | |
|--------------------|---|
| Evaporation rate: | No applicable information available. |
| Other Information: | If necessary, information on other physical and chemical parameters is indicated in this section. |

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

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

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product is stable if stored and handled as prescribed/indicated.

Conditions to avoid

See MSDS section 7 - Handling and storage.

Incompatible materials

strong oxidizing agents, strong bases, strong acids

Hazardous decomposition products

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Inhalation of vapours may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Inhalation exposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed.

Oral

No applicable information available.

Type of value: ATE

Value: > 5,000 mg/kg

Inhalation

Type of value: ATE

Value: 3.45 mg/l

Determined for mist

Dermal

Type of value: ATE

Value: > 5,000 mg/kg

Assessment other acute effects

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Irritation / corrosion

Assessment of irritating effects: Irritating to eyes, respiratory system and skin. Skin contact may result in dermatitis, either irritative or allergic.

Sensitization

Assessment of sensitization: Sensitization after skin contact possible. As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PELITLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material, or even as a result of vapour-only exposure. Animal tests indicate that skin contact may play a role in causing respiratory sensitization.

Aspiration Hazard

Study scientifically not justified.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The substance may cause damage to the olfactory epithelium after repeated inhalation. The substance may cause damage to the lung after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure.

Genetic toxicity

Assessment of mutagenicity: The substance was mutagenic in various bacterial test systems; however, these results could not be confirmed in tests with mammals.

Carcinogenicity

Assessment of carcinogenicity: A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations. These effects are not relevant to humans at occupational levels of exposure. IARC Group 3 (not classifiable as to human carcinogenicity).

Information on: Titanium dioxide

Assessment of carcinogenicity: IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term studies in rats in which the substance was given by inhalation, a carcinogenic effect was observed. Tumors were only observed in rats after chronic inhalative exposure to high concentrations which caused

sustained lung inflammation. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. Dermal exposure is not expected to be carcinogenic.

Reproductive toxicity

Assessment of reproduction toxicity: Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Teratogenicity

Assessment of teratogenicity: The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

Other Information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Medical conditions aggravated by overexposure

The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Medical supervision of all employees who handle or come into contact with isocyanates is recommended. Contact may aggravate pulmonary disorders. Persons with history of respiratory disease or hypersensitivity should not be exposed to this product. Preemployment and periodic medical examinations with respiratory function tests (FEV, FVC as a minimum) are suggested. Persons with asthmatic conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. Based on long-term (chronic) toxicity study data, the product is very likely not harmful to aquatic organisms.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Persistence and degradability

Assessment biodegradation and elimination (H20)

Not readily biodegradable (by OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential

Based on a weight of evidence, the compound will not bioaccumulate.

Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

Additional information

Other ecotoxicological advice:

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.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with local authority regulations. Do not discharge into drains/surface waters/groundwater.

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

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released /listed

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

CERCLARQ

5000 LBS

CAS Nymber

7664-38-2; 78-93-3; 101-68-8; 9016-87-9

Cbem jca! name

phosphoric acid; Methylethylketone; Diphenylmethane-4,4'-diisocyanate (MDI); P-MDI

1000 LBS

7705-08-0; 108-

Iron trichloride: Toluene



100 LBS 88-3
 108-90-7 chlorobenzene

CA Prop. 65:

WARNING: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

NFPA Hazard codes:

Health : 2 Fire: 1 Reactivity: 0 Special:

Assessment of the hazard classes according to UN GHS criteria (most recent version)

| | | |
|-------------------|--------------------------------------|--|
| Acute Tox. | 4 (Inhalation - mist) | Acute toxicity |
| Eye Dam./Irrit. | 2A | Serious eye damage/eye irritation |
| Skin Corr./Irrit. | 2 | Skin corrosion/irritation |
| Resp. Sens. | 1 | Respiratory sensitization |
| STOT SE | 3 (irritating to respiratory system) | Specific target organ toxicity-single exposure |
| STOT RE | 2 | Specific target organ toxicity-repeated exposure |

16. Other Information

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.
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