

SAFETY DATA SHEET

Ready Bond AP030001 Polyurethane Bead Adhesive Canister

1. Identification

Product identifier

Product name Ready Bond AP030001 Polyurethane Bead Adhesive Canister

Product number USA

Recommended use of the chemical and restrictions on use

Application Pressurized Polyurethane Bead Adhesive

Details of the supplier of the safety data sheet

Supplier Titan Adhesives / Adhesion Products
22290 Challenger Drive
Elkhart, IN 46514
5749708425

Emergency telephone number

Emergency telephone Chemtrec: 1 800 424 9300

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Flam. Aerosol 2 - H223 Press. Gas, Compressed - H280

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373

Environmental hazards Not Classified

Human health The liquid may be irritating to eyes, respiratory system and skin. Symptoms following overexposure may include the following: Headache. Dizziness. Nausea, vomiting.

Label elements

Pictogram



Signal word Danger

Hazard statements H302+H332 Harmful if swallowed or if inhaled.
H223 Flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

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Precautionary statements	<p>P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.</p> <p>P301+P312 If swallowed: Call a poison center/ doctor if you feel unwell.</p> <p>P302+P352 If on skin: Wash with plenty of water.</p> <p>P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P412 Do not expose to temperatures exceeding 50°C/122°F.</p>
Supplemental label information	AT(o) 5.0% of the mixture consists of ingredient(s) of unknown acute oral toxicity.
Contains	Polymeric MDI, Monomeric MDI, 2,2'-dimorpholinyl-diethyl ether (6425-39-4), 1,1, Difluoroethane (152a)

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Polymeric MDI	30-60%
CAS number: 9016-87-9	
Classification	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Irrit. 2A - H319	
Resp. Sens. 1 - H334	
Skin Sens. 1A - H317	
STOT SE 3 - H335	
Monomeric MDI	30-60%
CAS number: 101-68-8	
Classification	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Resp. Sens. 1 - H334	
Skin Sens. 1 - H317	
Carc. 2 - H351	
STOT SE 3 - H335	
STOT RE 2 - H373	
2,2'-dimorpholinyl-diethyl ether (6425-39-4)	5-10%
CAS number: 6425-39-4	
Classification	
Eye Irrit. 2 - H319	

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1,1, Difluoroethane (152a)	5-10%
CAS number: 75-37-6	
Classification	
Flam. Aerosol 1 - H222	
Press. Gas, Compressed - H280	
Acute Tox. 4 - H332	
Simple Asphyxiant - USH03	

The full text for all hazard statements is displayed in Section 16.

hydrocarbons

hydro carbons

4. First-aid measures

Description of first aid measures

General information	Remove affected person from source of contamination. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention if any discomfort continues.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.
Ingestion	Get medical attention immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Skin Contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Remove any contact lenses and open eyelids wide apart. Only remove contact lenses if the person is conscious, coherent and they can remove them themselves. If adhesive bonding occurs, do not force eyelids apart. Continue to rinse for at least 15 minutes. If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

Most important symptoms and effects, both acute and delayed

Inhalation	May cause coughing and difficulties in breathing. May cause eye and respiratory system irritation. Overexposure may depress the central nervous system, causing dizziness and intoxication.
Ingestion	Aspiration hazard if swallowed. May be fatal if swallowed and enters airways. Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract. May Cause the following effects: Gastrointestinal symptoms, including upset stomach. Central nervous system depression. Nausea, vomiting. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin contact	May be absorbed through the skin. Product has a defatting effect on skin. The liquid is irritating to eyes and skin. A single exposure may cause the following adverse effects: Dryness and/or cracking.
Eye contact	Causes serious eye irritation. Burns can occur. A single exposure may cause the following adverse effects: Pain. Conjunctivitis, irritation, tearing. Prolonged or repeated exposure may cause the following adverse effects: Irritation of eyes and mucous membranes. Prolonged contact causes serious eye and tissue damage.

5. Fire-fighting measures

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Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards Pressurized container: Must not be exposed to temperatures above 50°C/120°F Containers can burst violently or explode when heated, due to excessive pressure build-up. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products Oxides of carbon. Oxides of nitrogen. Isocyanates. Trace amounts of: Hydrogen cyanide (HCN).

Advice for firefighters

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8. No smoking, sparks, flames or other sources of ignition near spillage.

Environmental precautions

Environmental precautions Avoid discharge into drains. Contain spillage with sand, earth or other suitable non-combustible material.

Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Avoid the spillage or runoff entering drains, sewers or watercourses. Absorb in vermiculite, dry sand or earth and place into containers. Wash thoroughly after dealing with a spillage.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid contact with skin and eyes. Keep away from heat, sparks and open flame. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level. Container must be kept tightly closed when not in use. Use explosion proof electric equipment. Avoid discharge into drains or watercourses or onto the ground.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Keep container tightly closed. Keep only in the original container. Pressurized container: Must not be exposed to temperatures above 50°C/120°F

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

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Control parameters

Occupational exposure limits

Monomeric MDI

Long-term exposure limit (8-hour TWA): ACGIH 0.005 ppm

Ceiling exposure limit: OSHA 0.02 ppm 0.2 mg/m³

1,1, Difluoroethane (152a)

Long-term exposure limit (8-hour TWA): WEEL:US.AIHA = Workplace Environmental Exposure Level Guides 2700 mg/m³ 1000 ppm

ACGIH = American Conference of Governmental Industrial Hygienists.

OSHA = Occupational Safety and Health Administration.

Polymeric MDI (CAS: 9016-87-9)

Ingredient comments No exposure limits known for ingredient(s).

2,2'-dimorpholinyl-diethyl ether (6425-39-4) (CAS: 6425-39-4)

Ingredient comments No exposure limits known for ingredient(s).

Exposure controls

Protective equipment



Appropriate engineering controls

This product must not be handled in a confined space without adequate ventilation. Avoid inhalation of vapors and spray/mists. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

Eye/face protection

Wear chemical splash goggles.

Hand protection

Use protective gloves.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Respiratory protection

If exposure levels are likely to be exceeded, use a half face mask fitted with an organic vapor filter for short term low level exposures. For long term or high level exposures, a supplied air respirator should be used.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Foam Bead
Color	Pale yellow.
Odor	Faint. Musty (mouldy).
Flash point	> -50°C/-58°F Closed cup.

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Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 4.32 % Upper flammable/explosive limit: 17.35 %
Relative density	1.13 @ 23.3°C/74°F
Solubility(ies)	Insoluble in water
Volatile organic compound	This product contains a maximum VOC content of 0 g/l .

10. Stability and reactivity

Stability	Stable at normal ambient temperatures and when used as recommended.
Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid contact with the following materials: Oxidizing agents. Reducing agents.
Materials to avoid	Amines. Strong acids. Strong bases. Oxidizing agents. Peroxides.
Hazardous decomposition products	Fire creates: Vapours/gases/fumes of: Oxides of nitrogen. Oxides of carbon. Isocyanates. Trace amounts of: Peroxides

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 568.18

Acute toxicity - inhalation

ATE inhalation (gases ppm) 90,000.0

ATE inhalation (vapours mg/l) 12.5

Toxicological information on ingredients.

Polymeric MDI

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 0.49

Species Rat

ATE inhalation (vapours mg/l) 11.0

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation.

Aspiration hazard

Aspiration hazard No data available.

Monomeric MDI

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Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 9,200.0

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 2.24

Species Rat

ATE inhalation (vapours mg/l) 11.0

Serious eye damage/irritation

Serious eye damage/irritation Slightly irritating.

Respiratory sensitization

Respiratory sensitization May cause sensitisation.

Skin sensitization

Skin sensitization May cause sensitisation.

Carcinogenicity

Carcinogenicity Data lacking.

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Inhalation - May cause damage to organs through prolonged or repeated exposure

Aspiration hazard

Aspiration hazard No data available.

2,2'-dimorpholinyldiethyl ether (6425-39-4)

Toxicological effects No data recorded.

Carcinogenicity

Carcinogenicity No information available.

Aspiration hazard

Aspiration hazard No data available.

1,1, Difluoroethane (152a)

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,500.0

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Species	Rat
ATE oral (mg/kg)	500.0
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ gases ppmV)	383,000.0

Species	Rat
ATE inhalation (gases ppm)	4,500.0

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

12. Ecological information

13. Disposal considerations

Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

Air transport notes Cargo aircraft only. <75kg

UN Number

UN No. (ICAO) 3501

UN No. (DOT) 3501

UN proper shipping name

Proper shipping name (DOT) Chemical Under Pressure, Flammable, N.O.S. (1,1 Difluoroethane 152a)

Transport hazard class(es)

DOT hazard class 2.1

Transport labels



Packing group

Packing group (International) Not applicable.

15. Regulatory information

National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Guidance CHIP for everyone HSG228.
Workplace Exposure Limits EH40.
Safety Data Sheets for Substances and Preparations.
Approved Classification and Labelling Guide (Sixth edition) L131.

US Federal Regulations

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CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed or exempt:

Monomeric MDI

Final CERCLA RQ: 5000(2270) pounds (Kilograms)

SARA 313 Emission Reporting

The following ingredients are listed or exempt:

Monomeric MDI

1.0 %

1.0 %

SARA (311/312) Hazard Categories

Health hazard

1,1, Difluoroethane (152a)

Fire

Pressure

Hazard

Acute

Health hazard

Polymeric MDI

Acute

Health hazard

Monomeric MDI

Chronic

Health hazard

Acute

Health hazard

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

This product does not contain any chemicals known to the State of California to cause cancer, birth or any other reproductive harm.

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

Monomeric MDI

Present.

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

1,1, Difluoroethane (152a)

Present

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

1,1, Difluoroethane (152a)

Present.

Polymeric MDI

Present.

Monomeric MDI

Present.

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

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1,1, Difluoroethane (152a)

Present.

Polymeric MDI

Present.

Inventories

Canada - DSL/NDSL

The following ingredients are listed or exempt:

1,1, Difluoroethane (152a)

All the ingredients are listed or exempt.

US - TSCA

The following ingredients are listed or exempt:

2,2'-dimorpholinyl-diethyl ether (6425-39-4)

Present.

1,1, Difluoroethane (152a)

All the ingredients are listed or exempt.

Monomeric MDI

Present.

16. Other information

Revision date	2/19/2019
Revision	1
SDS No.	22665
Hazard statements in full	H223 Flammable aerosol. H280 Contains gas under pressure; may explode if heated. H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure. USH03 May displace oxygen and cause rapid suffocation
ACA HMIS Health rating.	Moderate hazard. (2)
ACA HMIS Flammability rating.	Extremely flammable. (4)
ACA HMIS Physical hazard rating.	Normally stable. (0)
ACA HMIS Personal protection rating.	B

DIRECTIONS FOR USE

PRODUCT LOGO

Ready Bond AP030001 Polyurethane Bead Adhesive Canister

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. The manufacturer MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. Given the variety of factors that can affect the use and application of this product, many of which are solely within the user's knowledge and control, the user is responsible for determining whether the usage of this product is fit for a particular purpose and suitable for the user's method of use or application. It is essential that the user, not the manufacturer, evaluates this product to determine whether it is fit for a particular purpose and suitable for the user's method of use or application.