SAFETY DATA SHEET

1. Identification	
Product identifier	
Product name	Ready Bond Temp. Bond Insulation Spray Adhesive Canister
Product number	USA. AP030005, AP030006, AP030007
Recommended use of the ch	emical and restrictions on use
Application	Canister Spray 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	er en
Emergency telephone	Chemtrec: 1 800 424 9300
2. Hazard(s) identification	
Classification of the substance	ze or mixture
Physical hazards	Flam. Aerosol 2 - H223
Health hazards	Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 STOT SE 3 - H336
Environmental hazards	Aquatic Acute 2 - H401 Aquatic Chronic 2 - H411
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	
Hazard symbols	
Signal word	Warning
Hazard statements	H302+H332 Harmful if swallowed or if inhaled. H223 Flammable aerosol. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	 P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P301+P312 If swallowed: Call a poison center/ doctor if you feel unwell. P302+P352 If on skin: Wash with plenty of water. P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P412 Do not expose to temperatures exceeding 50°C/122°F.

10-25%

10-25%

10-25%

Ready Bond Temp. Bond Insulation Spray Adhesive Canister

Supplemental label information	AT(o) 20.0% of the mixture consists of ingredient(s) of unknown acute oral toxicity.
Contains	Heptane, Propane, Acetone

Other hazards

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

3. Composition/information on ingredients

Mixtures

Heptane	
CAS number: 142-82-5	
M factor (Acute) = 1	M factor (Chronic) = 1
Classification	
Flam. Liq. 2 - H225	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	

STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

Isobutane

CAS number: 75-28-5

Classification

Flam. Gas 1 - H220 Press. Gas, Compressed - H280

Propane

CAS number: 74-98-6

Classification

Flam. Gas 1 - H220 Press. Gas, Liquefied - H280 Acute Tox. 4 - H332 Simple Asphyxiant - USH03

Acetone	10-25%
CAS number: 67-64-1	
Classification	
Flam. Liq. 2 - H225	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Irrit. 2A - H319	
STOT SE 3 - H336	
The full text for all hazard s	statements is displayed in Section 16.
1. First-aid measures	
Description of first aid mea	sures
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 an 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. Was 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

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 t	he 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.
Advice for firefighters	
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
6. Accidental release measure	\$
Personal precautions, protecti	ve 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 cont	ainment 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, in	cluding 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/Persona	I protection
Control parameters	
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Occupational exposure limits

Heptane

Long-term exposure limit (8-hour TWA): ACGIH 400 ppm Short-term exposure limit (15-minute): ACGIH 500 ppm Long-term exposure limit (8-hour TWA): OSHA 500 ppm 2000 mg/m³

Isobutane

Long-term exposure limit (8-hour TWA): ACGIH 1000 ppm Long-term exposure limit (8-hour TWA): NIOSH: National Institute of Occupational Safety and Health 800 ppm 1900 mg/m³

Propane

Long-term exposure limit (8-hour TWA): NIOSH: National Institute of Occupational Safety and Health 1800 mg/m³ 1000 ppm Long-term exposure limit (8-hour TWA): OSHA 1800 ppm 1000 mg/m³

Acetone

Long-term exposure limit (8-hour TWA): ACGIH 500 ppm Short-term exposure limit (15-minute): ACGIH 750 ppm

A4

Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 2400 mg/m³

Ceiling exposure limit: NIOSH: National Institute of Occupational Safety and Health 250 ppm 590 mg/m³ vapour

ACGIH = American Conference of Governmental Industrial Hygienists. OSHA = Occupational Safety and Health Administration.

A4 = Not Classifiable as a Human Carcinogen.

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	Aerosol.
Color	Clear
Odor	Aromatic hydrocarbons.

Initial boiling point and range	-31.6°C/-	-24.88°F
Flash point	-104.44°	C/-155.9°F
Upper/lower flammability or explosive limits		ammable/explosive limit: 1.2 % Upper flammable/explosive limit: 12.8 %
Relative density	0.78	
Volatile organic compound	This proc	duct contains a maximum VOC content of 397 g/l.
10. Stability and reactivity		
Stability	Stable at	normal ambient temperatures and when used as recommended.
Conditions to avoid		at, flames and other sources of ignition. Avoid contact with the following materials: g agents. Reducing agents.
Hazardous decomposition products		tes: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2). n chloride (HCI). Nitrous gases (NOx).
11. Toxicological information		
Information on toxicological ef	fects	
<u>Acute toxicity - oral</u> ATE oral (mg/kg)	1,023.44	
Acute toxicity - dermal ATE dermal (mg/kg)	2,814.45	
Acute toxicity - inhalation ATE inhalation (gases ppm)	22,500.0	
ATE inhalation (vapours mg/l)	18.62	
Toxicological information on in	gredients.	
		Heptane
Acute toxicity - or	al	
Acute toxicity ora mg/kg)	I (LD₅o	5,000.0
Species		Rat
ATE oral (mg/kg)		500.0
Acute toxicity - de	ermal	
Acute toxicity der mg/kg)	mal (LD₅₀	2,000.0
Species		Rabbit
ATE dermal (mg/	kg)	1,100.0
Acute toxicity - in	halation	
Acute toxicity inh (LC₅ vapours mo		29.3
Species		Rat

ATE inhalation (vapours mg/l)	11.0
Carcinogenicity	
Carcinogenicity	Does not contain any substances known to be carcinogenic.
Specific target organ toxic	ity - single exposure
STOT - single exposure	May cause drowsiness or dizziness
General information	Absorbtion of large quantities may cause: Narcosis. Death.
	Isobutane
Toxicological effects	No information available.
Carcinogenicity	
Carcinogenicity	Does not contain any substances known to be carcinogenic.
Inhalation	Suffocation (asphyxiant) hazard
Skin Contact	Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin.
Eye contact	Spray will evaporate and cool quickly and may cause frostbite or cold burns if in contact with skin.
	Propane
Acute toxicity - inhalation	
Acute toxicity inhalation (LC₅ gases ppmV)	1,442.0
Species	Rat
Species Acute toxicity inhalation (LC50 vapours mg/l)	Rat 1,442.0
Acute toxicity inhalation	
Acute toxicity inhalation (LC _∞ vapours mg/l)	1,442.0
Acute toxicity inhalation (LC ⁵⁰ vapours mg/l) Species ATE inhalation (gases	1,442.0 Rat
Acute toxicity inhalation (LC₅₀ vapours mg/l) Species ATE inhalation (gases ppm) ATE inhalation (vapours	1,442.0 Rat 4,500.0
Acute toxicity inhalation (LC₅₀ vapours mg/l) Species ATE inhalation (gases ppm) ATE inhalation (vapours	1,442.0 Rat 4,500.0 11.0
Acute toxicity inhalation (LC∞ vapours mg/l) Species ATE inhalation (gases ppm) ATE inhalation (vapours mg/l)	1,442.0 Rat 4,500.0 11.0
Acute toxicity inhalation (LC ⁵⁰ vapours mg/l) Species ATE inhalation (gases ppm) ATE inhalation (vapours mg/l) Acute toxicity - oral Acute toxicity oral (LD ⁵⁰	1,442.0 Rat 4,500.0 11.0 <u>Acetone</u>
Acute toxicity inhalation (LC ⁵⁰ vapours mg/l) Species ATE inhalation (gases ppm) ATE inhalation (vapours mg/l) Acute toxicity - oral Acute toxicity oral (LD ⁵⁰ mg/kg)	1,442.0 Rat 4,500.0 11.0 <u>Acetone</u> 5,800.0

	Acute toxicity dermand mg/kg)	al (LD₅₀	20,000.0
	Species		Rabbit
	ATE dermal (mg/kg	I)	1,100.0
	Acute toxicity - inha	alation	
	Acute toxicity inhala (LC₅₀ dust/mist mg/		76.0
	Species		Rat
	ATE inhalation (vap mg/l)	ours	11.0
	Specific target orga	n toxicit	y - single exposure
	STOT - single expo	sure	May cause drowsiness or dizziness
	Inhalation		Mucosal irritations. Absorption.
	Ingestion		Irritating. May cause nausea, stomach pain and vomiting. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
	Skin Contact		This product is moderately irritating. May be absorbed through the skin. Repeated exposure may cause skin dryness or cracking.
	Eye contact		This product is strongly irritating. Risk of corneal clouding.
	Route of exposure		Inhalation Skin and/or eye contact
	Target Organs		Eyes
12. Ecologic	al information		
13. Disposa	l considerations		
Waste treatr	ment methods		
Disposal me		-	of waste to licensed waste disposal site in accordance with the requirements of the ste Disposal Authority.
14. Transpo	rt information		
Air transport	notes (Cargo aiı	craft only. <75kg
UN Number			
UN No. (TD	G) 3	3501	
UN No. (IME	DG) 3	3501	
UN No. (ICA	NO) 3	3501	
UN No. (DO	T) 3	3501	
UN proper s	hipping name		
Proper shipp	bing name (TDG)	Chemica	I Under Pressure, Flammable, N.O.S. (Isobutane, Propane)
Proper shipp	oing name (IMDG)	Chemica	I Under Pressure, Flammable, N.O.S. (Isobutane, Propane)

Proper shipping name (ICAO)	Chemical Under Pressure, Flammable, N.O.S. (Isobutane, Propane)
Proper shipping name (DOT)	Chemical Under Pressure, Flammable, N.O.S. (Isobutane, Propane)
Transport hazard class(es)	
DOT hazard class	2.1
Transport labels	
Packing group	
Packing group Packing group (International)	Not applicable.
	Not applicable.
Packing group (International)	Not applicable. The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

US Federal Regulations

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

SARA (311/312) Hazard Categories Present.

US State Regulations

Massachusetts "Right To Know" List Present.

Rhode Island "Right To Know" List Present.

Minnesota "Right To Know" List Present.

New Jersey "Right To Know" List Present.

Pennsylvania "Right To Know" List Present.

Inventories

Canada - DSL/NDSL DSL Present.

US - TSCA Present.

16. Other information	
Revision date	2/28/2020
Revision	7
Supersedes date	2/28/2020
SDS No.	22688
Hazard statements in full	 H220 Extremely flammable gas. H223 Flammable aerosol. H225 Highly flammable liquid and vapor. H280 Contains gas under pressure; may explode if heated. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. USH03 May displace oxygen and cause rapid suffocation
ACA HMIS Health rating.	Slight hazard. (1)
ACA HMIS Flammability rating.	Extremely flammable. (4)
ACA HMIS Physical hazard rating.	Normally stable. (0)
ACA HMIS Personal protection rating.	В
DIRECTIONS FOR USE	
PRODUCT LOGO	

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.