

Safety Data Sheet

24 Hour Emergency Phone Numbers Medical/Poison Control:

In U.S.: Call 1-800-222-1222

Outside U.S.: Call your local poison control center

Transportation/National Response Center:

1-800-535-5053 1-352-323-3500

NOTE: The National ResponseCenter emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this SDS are further described in Section 16.

1. Identification

Product Name: SmartBond Subfloor Construction Adhesive

Foam

Product UPC Number: 070798000360, 070798000421

Manufactured For DAP Products Inc.

2400 Boston Street Suite 200 Baltimore, MD 21224-4723

888-327-8477 (non - emergency matters)

SDS Coordinator: MSDS@dap.com

Emergency Telephone: 1-800-535-5053, 1-352-323-3500, 1-800-222-1222

Revision Date: 10/10/2019

Supercedes Date: 2/14/2019

Product Use/Class: Foam Sealant/Adhesive

SDS No: 00010127004

Preparer: Regulatory and Environmental

Affairs

2. Hazards Identification

GHS Classification

Carc. 2, Comp. Gas, Eye Irrit. 2, Fl Aer, 1, Resp. Sens. 1, Skin Irrit. 2, Skin Sens. 1, STOT RE 2, STOT SE 3 RTI

Symbol(s) of Product









Signal Word Danger

Possible Hazards

19% of the mixture consists of ingredients of unknown acute toxicity

GHS HAZARD STATEMENTS

Flammable Aerosol, category 1 H222 Extremely flammable aerosol.

Compressed Gas H280 Contains gas under pressure; may explode if heated.

Skin Irritation, category 2 H315 Causes skin irritation.

Skin Sensitizer, category 1 H317 May cause an allergic skin reaction.

Eye Irritation, category 2 H319 Causes serious eye irritation.

Acute Toxicity, Inhalation, category 4 H332 Harmful if inhaled.

Respiratory Sensitizer, category 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

STOT, single exposure, category 3, RTI H335 May cause respiratory irritation. Carcinogenicity, category 2 H351 Suspected of causing cancer.

STOT, repeated exposure, category 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS LABEL PRECAUTIONARY STATEMENTS

P201 Obtain special instructions before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.

P284 [In case of inadequate ventilation] wear respiratory protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and 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.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P321 Specific treatment (see ... on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P362 Take off contaminated clothing.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

P410+P412 Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F.

P501 Dispose of contents/container to ...

GHS SDS PRECAUTIONARY STATEMENTS

P363 Wash contaminated clothing before reuse.

3. Composition/Information on Ingredients

Chemical Name	CAS-No.	Wt. % GHS Symbols	GHS Statements
Polymeric diphenylmethane diisocyanate	9016-87-9	30-60 GHS07	H332
Tris(2-chloro-1-methylethyl) phosphate	13674-84-5	10-30 GHS07	H302-332
4,4'-Methylene diphenyl diisocyanate (MDI)	101-68-8	10-30 GHS07-GHS08	H315-317-319-332-334-335-351 -373
Propylene glycols	25322-69-4	7-13 No Information	No Information
Dimethyl ether	115-10-6	5-10 No Information	No Information
Isobutane	75-28-5	3-7 GHS07	H332-336
Propane	74-98-6	1-5 GHS07	H332-336
n-Butane	106-97-8	0.5-1.5 GHS02-GHS07	H220-332-336
Ethylene glycol	107-21-1	0.5-1.5 GHS07	H332
4,4'-(Oxydi-2,1-ethanediyl)bismorpholine	6425-39-4	0.5-1.5 GHS07	H302-319

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - SKIN CONTACT: Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist. Use a rag to remove excess foam from skin and remove contaminated clothing. Use of a solvent, such as acetone (nail polish remover) or mineral spirits, may help in removing uncured foam residue from clothing or other surfaces (avoid eye contact). Cured foam may be physically removed by persistent washing with soap and water. If irritation develops, use mild skin cream. If irritation persists, obtain medical attention.

FIRST AID - EYE CONTACT: In case of contact, immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention immediately.

FIRST AID - INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may burst if exposed to extreme heat or fire. Containers may explode if exposed to extreme heat. Empty containers retain product residue (liquid and/or vapor). Vapor can ignite potentially causing an explosion.

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

EXTINGUISHING MEDIA: Alcohol Foam, Carbon Dioxide, Dry Chemical, Water Fog

Accidental Release Measures

ENVIRONMENTAL MEASURES: No Information

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: NOTE: Review fire hazards before proceeding with clean up. Immediately eliminate sources of ignition. Keep people away from and upwind of spill/leak. Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Prevent product from entering drains. Soak up with inert absorbent material and dispose of as hazardous waste. Use personal protective equipment as necessary. Read all product instructions before using. Personal protective equipment should include impervious gloves, protective eye wear, and suitable work clothes. Scrape up dried material and place into containers. Uncured product is very sticky, so carefully remove the bulk of the foam by scraping it up and then immediately remove residue with a rag and solvent such as polyurethane cleaner, mineral spirits, acetone (nail polish remover), paint thinner, etc. Once the product has cured, it can only be removed physically by scraping, buffing, etc. Dispose as plastic waste (foam plastic) in accordance with all applicable guidelines and regulations.

7. Handling and Storage

HANDLING: KEEP OUT OF REACH OF CHILDREN!DO NOT TAKE INTERNALLY. Remove all sources of ignition. Make sure nozzle is directed away from yourself prior to discharge. Keep away from open flames, hot surfaces and sources of ignition. Avoid heat, sparks and open flames. Wear appropriate personal protection. Avoid breathing vapor and contact with eyes, skin and clothing. Use only with adequate ventilation. Ensure fresh air entry during application and drying. Do not breathe dust. While dry sanding, use of a NIOSH-approved dust mask is recommended. Empty containers retain product residue (liquid and/or vapor). Vapor can ignite potentially causing an explosion. Wash thoroughly after handling. Contains isocyanates. See information supplied by the manufacturer. Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

STORAGE: Store away from sources of ignition and heat. Protect material from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store at temperatures above 120 degrees F. Store containers away from excessive heat and freezing. Store away from caustics and oxidizers.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits					
Chemical Name	ACGIH TLV-TWA	ACGIH-TLV STEL	OSHA PEL-TWA	OSHA PEL-CEILING	
Polymeric diphenylmethane diisocyanate	N.E.	N.E.	N.E.	N.E.	
Tris(2-chloro-1-methylethyl) phosphate	N.E.	N.E.	N.E.	N.E.	
4,4'-Methylene diphenyl diisocyanate	0.005 ppm TWA	N.E.	N.E.	0.02 ppm Ceiling, 0.2	
(MDI)	Methylene bisphenyl isocyanate (MDI)			mg/m3 Ceiling	
Propylene glycols	N.E.	N.E.	N.E.	N.E.	
Dimethyl ether	N.E.	N.E.	N.E.	N.E.	
Isobutane	N.E.	1000 ppm STEL explosion hazard Butane, isomers	N.E.	N.E.	

SDS Number: 00010127004 Revision Date: 10/10/2019 SAP Number:

See Appendix F: 1000 ppm TWA, Propane N.E. N.E. 1800 mg/m3 TWA

Minimal Oxygen Content, explosion

hazard

Ethylene glycol 25 ppm TWA vapor 50 ppm STEL vapor N.E. N.E.

fraction fraction, 10 mg/m3

STEL inhalable particulate matter, aerosol only

4,4'-(Oxydi-2,1-ethanediyl)bismorpholine N.E. N.E. N.E. N.E. 1000 ppm STEL n-Butane N.E. N.E. N.E.

> explosion hazard Butane, isomers

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation Sk = Skin Sensitizer N.E. = Not Established

Personal Protection



RESPIRATORY PROTECTION: When concentrations exceed the exposure limits specified, use of a NIOSH-approved dust, mist and fume respirator is recommended. Where the protection factor of the respirator may be exceeded, use of a full facepiece, supplied air, or Self Contained Breathing Apparatus (SCBA) may be necessary. No personal respiratory protective equipment normally required. If concentrations exceed the exposure limits specified, use of a NIOSH-approved supplied air respirator is recommended. Where the protection factor is exceeded, use of a Self Contained Breathing Apparatus (SCBA) may be necessary. A respiratory protection program that meets the OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.



SKIN PROTECTION: Wear nitrile, neoprene, or natural rubber gloves. Wear solvent impervious gloves. Wear protective gloves.



EYE PROTECTION: Goggles or safety glasses with side shields.



OTHER PROTECTIVE EQUIPMENT: Provide eyewash and solvent impervious apron if body contact may occur.



HYGIENIC PRACTICES: Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Appearance: Red **Physical State:** Foam Odor: Solvent Odor Threshold: Not Established

Density, g/cm3: 0.99 - 1.01pH: Not Applicable Freeze Point. °C: Not Established Viscosity (mPa.s): Not Applicable Solubility in Water: Partition Coeff., n-octanol/water: Not Established No Information Decomposition Temperature, °C: Not Established **Explosive Limits, %:** N.E. - N.E. Boiling Range, °C: Minimum Flash Point, °C: N.E. - N.E. Auto-Ignition Temperature, °C Not Established Not Applicable Vapor Pressure, mmHg: Not Established **Evaporation Rate:** Faster Than n-Butyl Acetate Flash Method: Not Applicable Flammability, NFPA: Aerosol Level II

Vapor Density: Heavier Than Air

Combustible Dust: Does not support combustion

(See "Other information" Section for abbreviation legend)

(If product is an aerosol, the flash point stated above is that of the propellant.)

10. Stability and Reactivity

STABILITY: Stable under recommended storage conditions.

CONDITIONS TO AVOID: Do not breathe dust. Avoid dust formation in confined areas. Excessive heat and freezing. Keep away from open flames, hot surfaces and sources of ignition. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

INCOMPATIBILITY: Open flames, hot surfaces and sources of ignition. Incompatible with strong bases and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Normal decomposition products, i.e., COx, NOx.

11. Toxicological Information

EFFECT OF OVEREXPOSURE - INHALATION: Vapors may be irritating to eyes, nose, throat, and lungs. Inhalation of high concentrations may cause headache, nausea, and dizziness. Prolonged, repeated, or high exposures may cause irritation to the respiratory tract (nose, mouth, mucous membranes).

EFFECT OF OVEREXPOSURE - SKIN CONTACT: May cause sensitization by skin contact. May cause localized irritation, reddening or swelling. Prolonged or repeated exposure may lead to sensitization and/or contact dermatitis. This product has strong adhesive-like characteristics and will adhere aggressively to skin and other surfaces. If accidental contact occurs, follow the appropriate first-aid procedure described in Section 4 of this SDS.

EFFECT OF OVEREXPOSURE - EYE CONTACT: Direct eye contact may cause irritation. May cause eye irritation. Mist and vapors may cause eye irritation. Foam contact can cause physical damage due to adhesive character.

EFFECT OF OVEREXPOSURE - INGESTION: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

CARCINOGENICITY: Limited evidence in experimental animals.

EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS: Repeated or prolonged exposure may cause respiratory system damage. Repeated contact may cause allergic reactions in very susceptible persons. Prolonged or repeated inhalation of dust may cause lung damage.

PRIMARY ROUTE(S) OF ENTRY: Skin Contact, Inhalation, Eye Contact

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

<u>CAS-No.</u> 9016-87-9	<u>Chemical Name</u> Polymeric diphenylmethane diisocyanate	Oral LD50 49000 mg/kg Rat	Dermal LD50 >9400 mg/kg Rabbit	Vapor LC50 N.I.
13674-84-5	Tris(2-chloro-1-methylethyl) phosphate	1500 mg/kg Rat	>5000 mg/kg Rabbit	N.I.
101-68-8	4,4'-Methylene diphenyl diisocyanate (MDI)	31600 mg/kg Rat	9400 mg/kg Rabbit	N.I.
25322-69-4	Propylene glycols	3750 mg/kg Rat	N.I.	N.I.
115-10-6	Dimethyl ether	>2000 mg/kg	>2000 mg/kg	N.I.
75-28-5	Isobutane	N.I.	N.I.	658 mg/L Rat
74-98-6	Propane	Not an exposure route	Not an exposure rout	e N.I.
6425-39-4	4,4'-(Oxydi-2,1-ethanediyl)bismorpholine	2000 mg/kg Rat	3036 mg/kg Rabbit	N.I.
106-97-8	n-Butane	Not an exposure route	Not an exposure rout	e 658 mg/L Rat
107-21-1	Ethylene glycol	4700 mg/kg Rat	9530 mg/kg Rabbit	N.I.

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: No Information

13. Disposal Information

DISPOSAL INFORMATION: Residues and spilled material are hazardous waste due to ignitability. Contents under pressure.

Dispose of material in accordance with all federal, state and local regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste. Liquids cannot be disposed of in a landfill. Do not flush into surface water or sanitary sewer system. Do not empty into drains. Do not re-use empty containers. The container for this product can present explosion or fire hazards, even when emptied. To avoid risk of injury, do not cut, puncture, or weld on or near this container. Before disposing of containers, relieve container of any remaining product and pressure. Empty cylinders, once relieved of all pressure, can be disposed of as non-hazardous waste.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: NOTE: Review fire hazards before proceeding with clean up. Immediately eliminate sources of ignition. Keep people away from and upwind of spill/leak. Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Prevent product from entering drains. Soak up with inert absorbent material and dispose of as hazardous waste. Use personal protective equipment as necessary. Read all product instructions before using. Personal protective equipment should include impervious gloves, protective eye wear, and suitable work clothes. Scrape up dried material and place into containers. Uncured product is very sticky, so carefully remove the bulk of the foam by scraping it up and then immediately remove residue with a rag and solvent such as polyurethane cleaner, mineral spirits, acetone (nail polish remover), paint thinner, etc. Once the product has cured, it can only be removed physically by scraping, buffing, etc. Dispose as plastic waste (foam plastic) in accordance with all applicable guidelines and regulations.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No Information

DOT UN/NA Number: UN1950

DOT Proper Shipping Name: Aerosols, flammable

DOT Technical Name: N.A.

DOT Hazard Class: 2.1 Flammable gas

Hazard SubClass: N.A. Packing Group: N.A.

15. Regulatory Information

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

Revision Date: 10/10/2019 Supersedes Date: 2/14/2019

Reason for revision: Product Composition Changed Revision Statement(s) Changed

Regulatory Department

HMIS Ratings:

Datasheet produced by:

Health: Flammability: Reactivity: Personal Protection:

2* 4 3

VOC Less Water Less Exempt Solvent, g/L: 152.4

VOC Material, g/L: 152

VOC as Defined by California Consumer Product Regulation, Wt/Wt%: 15.1

VOC Actual, Wt/Wt%: 15.1

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H220	Extremely flammable gas.
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.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:



Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.