



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 Response Center 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

This Safety Data Sheet is available in American Spanish upon request.
 Los Datos de Seguridad pueden obtenerse en Espanol si lo requiere.

Product Name:	SmartBond Heavy Duty Construction Adhesive Foam	Revision Date:	2/12/2019
Product UPC Number:	070798000384	Supercedes Date:	9/24/2018
Product Use/Class:	Foam Sealant/Adhesive	SDS No:	00010128004
Manufactured For	DAP Products Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non - emergency matters)	Preparer:	Regulatory and Environmental Affairs
	SDS Coordinator: MSDS@dap.com		
	Emergency Telephone: 1-800-535-5053, 1-352-323-3500, 1-800-222-1222		

2. Hazards Identification

GHS Classification

Acute Tox. 4 Inhalation, Carc. 2, Comp. Gas, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1

Symbol(s) of Product**Signal Word**

Danger

Possible Hazards

7% of the mixture consists of ingredients of unknown acute toxicity

GHS HAZARD STATEMENTS

Compressed Gas	H280	Contains gas under pressure; may explode if heated.
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.
Carcinogenicity, category 2	H351	Suspected of causing cancer.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P261	Avoid breathing 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).
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.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P501	Dispose of contents/container to ...

GHS SDS PRECAUTIONARY STATEMENTS

P363	Wash contaminated clothing before reuse.
------	--

3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
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	1-5	GHS07-GHS08	H315-317-319-332-334-335-351-373
Dimethyl ether	115-10-6	1-5	GHS02	H220
Isobutane	75-28-5	1-5	GHS02-GHS07	H220-332-336
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-ethanediy)lbismorpholine	6425-39-4	0.5-1.5	GHS06-GHS07	H301-319
Propane	74-98-6	0.5-1.5	GHS02-GHS07	H220-332-336

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

4. First-aid Measures

FIRST AID - INHALATION: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

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

6. 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

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH-TLV STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>
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 (MDI)	0.005 ppm TWA Methylene bisphenyl isocyanate (MDI)	N.E.	N.E.	0.02 ppm Ceiling, 0.2 mg/m ³ Ceiling
Dimethyl ether	N.E.	N.E.	N.E.	N.E.

Isobutane	N.E.	1000 ppm STEL explosion hazard	N.E.	N.E.
n-Butane	N.E.	Butane, isomers 1000 ppm STEL explosion hazard	N.E.	N.E.
Ethylene glycol	25 ppm TWA vapor fraction	Butane, isomers 50 ppm STEL vapor fraction, 10 mg/m3 STEL inhalable particulate matter, aerosol only	N.E.	N.E.
4,4'-(Oxydi-2,1-ethanediyl)bismorpholine	N.E.	N.E.	N.E.	N.E.
Propane	See Appendix F: Minimal Oxygen Content, explosion hazard	N.E.	1000 ppm TWA, 1800 mg/m3 TWA	N.E.

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

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: No Information

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>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
9016-87-9	Polymeric diphenylmethane diisocyanate	49000 mg/kg Rat	>9400 mg/kg Rabbit	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.
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

106-97-8	n-Butane	Not an exposure route	Not an exposure route	658 mg/L Rat
107-21-1	Ethylene glycol	4700 mg/kg Rat	9530 mg/kg Rabbit	N.I.
6425-39-4	4,4'-(Oxydi-2,1-ethanediyl)bismorpholine	300 - 2000 mg/kg Rat	N.I.	N.I.
74-98-6	Propane	Not an exposure route	Not an exposure route	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: 2/12/2019 **Supersedes Date:** 9/24/2018

Reason for revision: Substance and/or Product Properties Changed in Section(s):
 01 - Product Information
 02 - Hazards Identification
 05 - Flammability Information
 08 - Exposure Controls/Personal Protection
 09 - Physical & Chemical Information
 11 - Toxicological Information
 15 - Regulatory Information
 16 - Other Information
 Substance Chemical Name Changed
 Revision Statement(s) Changed

Datasheet produced by: Regulatory Department

HMIS Ratings:

Health:	Flammability:	Reactivity:	Personal Protection:
2*	4	2	X

VOC Less Water Less Exempt Solvent, g/L: 148.0

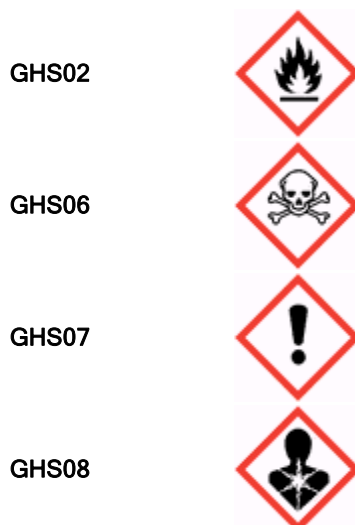
VOC Material, g/L: 148

VOC as Defined by California Consumer Product Regulation, Wt/Wt%: 9.0

VOC Actual, Wt/Wt%: 15.0

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

H220	Extremely flammable gas.
H301	Toxic if swallowed.
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.

