

# BRAND D SPF Adhesive Part A

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/09/2017

Revision date: 05/09/2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product form : Mixture  
Product name(s) : BRAND D SPF Adhesive Part A,

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Low pressure PVC roof adhesive, Side-A Component, for PROFESSIONAL USE ONLY

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer:

Distributors:

#### 1.4 Emergency telephone number

Emergency number : CHEMTREC 1-800-434-9300 (Acct.# ), CANUTEC 1-613-996-6666

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (GHS-US)

Acute Tox. 4 (Inhalation:dust,mist) H332  
Skin Irrit. 2 H315  
Resp. Sens. 1 H334  
Skin Sens. 1 H317  
STOT SE 3 H335  
STOT RE 2 H373

Full text of H statements : see section 16

#### 2.2 Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US)



GHS07



GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H332 - Harmful if inhaled  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H335 - May cause respiratory irritation

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## Precautionary statements (GHS-US)

- H373 - May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation)
- : P260 - Do not breathe dust, fume, gas, mist, spray, vapors  
P264 - Wash hands thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P272 - Contaminated work clothing must not be allowed out of the workplace  
P280 - Wear nitrile gloves  
P284 - [In case of inadequate ventilation] wear respiratory protection  
P302+P352 - If on skin: Wash with plenty of water  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P312 - Call a poison center if you feel unwell  
P314 - Get medical advice/attention if you feel unwell  
P321 - Specific treatment (see a doctor 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  
P342+P311 - If experiencing respiratory symptoms: Call a poison center/doctor/  
P362+P364 - Take off contaminated clothing and wash it before reuse  
P363 - Wash contaminated clothing before reuse  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P405 - Store locked up  
P501 - Dispose of container in accordance with local, regional or national regulations

## 2.3 Other hazards

No additional information available

## 2.4 Unknown acute toxicity (GHS-US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

Not applicable

### 3.2 Mixture

Name	Product identifier	%	Classification (GHS-US)
4,4'-methylenediphenyl diisocyanate	(CAS No) 101-68-8	28 - 45	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 STOT RE 2, H373
Non-hazardous components	n/a	55-72	n/a

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Remove the victim into fresh air. Call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Get medical advice/attention. Specific treatment (see Wash immediately with lots of water on this label). If skin irritation or rash occurs: Wash immediately with lots of water.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes damage to organs (respiratory system) (inhalation). Respiratory system.
- Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Eye irritation.

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## 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Carbon dioxide.  
Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Explosion hazard : Pressurized container: may burst if heated.  
Reactivity : Contains gas under pressure; may explode if heated.

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.  
Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, spray, vapors.  
Hygiene measures : Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Store at temperatures not exceeding 95F (35C).  
Incompatible products : Strong bases. Strong acids.  
Incompatible materials : Sources of ignition.  
Storage temperature : <= 35 (7.2°C – 35°C) °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

4,4'-methylenediphenyl diisocyanate (101-68-8)		
USA ACGIH	ACGIH TWA (ppm)	0.01 ppm
USA ACGIH	ACGIH STEL (ppm)	0.005 ppm
USA ACGIH	Remark (ACGIH)	Resp sens

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## 4,4'-methylenediphenyl diisocyanate (101-68-8)

USA OSHA	OSHA PEL (Ceiling) (mg/m³)	0.2 mg/m³
USA OSHA	OSHA PEL (Ceiling) (ppm)	0.02 ppm

### 8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear nitrile gloves protective gloves.
Eye protection	: Chemical goggles or safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.
Other information	: Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: amber
Odor	: mild
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: >= 200 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: ≈ 0.59 mPa
Relative vapor density at 20 °C	: >= 3.6
Specific Gravity	: No data available
Density	: ≈ 1.23 g/ml
Solubility	: Insoluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

### 9.2. Other information

VOC content	: <5 g/l As calculated per SCAQMD rule 443.1
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Contains gas under pressure; may explode if heated.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Not established.

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## 10.4. Conditions to avoid

Heat. No flames, no sparks. Eliminate all sources of ignition.

## 10.5. Incompatible materials

Strong acids. Strong bases.

## 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Inhalation:dust/mist: Harmful if inhaled.

#### SPF Adhesive Part A

ATE US (dust, mist)	3.333 mg/l/4h
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#### 4,4'-methylenediphenyl diisocyanate (101-68-8)

LD50 oral rat	> 7616 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	> 9400 mg/kg body weight (Rabbit; Read-across; Equivalent or similar to OECD 402)
ATE US (gases)	4500.000 ppm V/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

#### 4,4'-methylenediphenyl diisocyanate (101-68-8)

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation).  
May cause damage to organs through prolonged or repeated exposure

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if inhaled.

Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### 4,4'-methylenediphenyl diisocyanate (101-68-8)

LC50 fish 1	> 1000 mg/l (96 h; Danio rerio; Nominal concentration)
EC50 Daphnia 1	129.7 mg/l (24 h; Daphnia magna; Locomotor effect)
Threshold limit algae 1	> 1640 mg/l (72 h; Desmodesmus subspicatus; Growth rate)
Threshold limit algae 2	1000 mg/l (112 days; Aquatic plants)

### 12.2. Persistence and degradability

#### SPF Adhesive Part A

Persistence and degradability	Not established.
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4,4'-methylenediphenyl diisocyanate (101-68-8)	
Persistence and degradability	Not readily biodegradable in water. No (test) data on mobility of the substance available. Not established.

## 12.3. Bioaccumulative potential

SPF Adhesive Part A	
Bioaccumulative potential	Not established.

4,4'-methylenediphenyl diisocyanate (101-68-8)	
BCF fish 1	0 (8 weeks; Cyprinus carpio; Test duration: 8 weeks)
BCF fish 2	92 - 200 (4 weeks; Cyprinus carpio; GLP)
Log Pow	5.22 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

## 12.4. Mobility in soil

No additional information available

## 12.5. Other adverse effects

Effect on ozone layer	:
Effect on the global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.

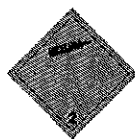
## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of container in accordance with local, regional or national regulations.
Ecology - waste materials	: Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT	
Transport document description	: UN3500 Chemical under pressure, n.o.s., 2.2
UN-No.(DOT)	: 3500
DOT NA no.	: UN3500
DOT Proper Shipping Name	: Chemical under pressure, n.o.s.
Technical Name	: (1,1,1,2 Tetrafluoroethane, Nitrogen)
Class (DOT)	: 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115
Hazard labels (DOT)	: 2.2 - Non-flammable gas



DOT Symbols	: G - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102)	: T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied compressed gases are authorized to be transported in portable tanks in accordance with the requirements of 173.313 of this subchapter
DOT Packaging Exceptions (49 CFR 173.xxx)	: None
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 335
DOT Packaging Bulk (49 CFR 173.xxx)	: 313;315
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 150 kg
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded

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## Additional information

Emergency Response Guide (ERG) Number : 126

Other information : No supplementary information available.

## ADR

Transport document description :

## Transport by sea

UN-No. (IMDG) : 3500

Proper Shipping Name (IMDG) : CHEMICAL UNDER PRESSURE, N.O.S.

Class (IMDG) : 2 - Gases

## Air transport

UN-No.(IATA) : 3500

Proper Shipping Name (IATA) : Chemical under pressure, n.o.s.

Class (IATA) : 2

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### SPF Adhesive Part A

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 4,4'-methylenediphenyl diisocyanate (101-68-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on United States SARA Section 313

CERCLA RQ 5000 lb

### 15.2. International regulations

#### CANADA

#### EU-Regulations

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

#### 15.2.2. National regulations

No additional information available

### 15.3. US State regulations

#### SPF Adhesive Part A

U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

#### 4,4'-methylenediphenyl diisocyanate (101-68-8)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	No	No	No	

#### 4,4'-methylenediphenyl diisocyanate (101-68-8)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

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4,4'-methylenediphenyl diisocyanate (101-68-8)

U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

Revision date : 05/09/2017

Other information : None.

Full text of H-phrases::

H315	Causes skin irritation
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard

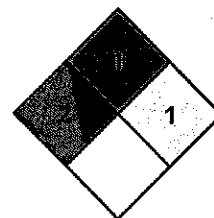
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



## HMIS III Rating

SDS US (GHS HazCom 2012) - Custom

This SDS contains all the information required by ANSI Z400.1 standard (United States), by regulation 29 CFR Part 1910-1200 of the Hazard Communication Standard of OSHA and is in accordance with DORS/88-66 of WHMIS (Canada).

The best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



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Revision date: 05/10/2017

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product form : Mixture  
Product name : Brand D Part B

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use of the substance/mixture : Low pressure Polyurethane Foam Adhesive, Side B Component, for PROFESSIONAL USE ONLY

**1.3. Details of the supplier of the safety data sheet**

Manufacturer:

Distributors:

**1.4. Emergency telephone number**

Emergency number : CHEMTREC 1-800-434-9300 (Acct.# 1. CANUTEC 1-613-996-6666

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

Classification (GHS-US)

Skin Sens. 1 H317

Full text of H statements : see section 16

**2.2. Label elements**

GHS-US labeling

Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US)

: Warning

Hazard statements (GHS-US)

: H317 - May cause an allergic skin reaction

Precautionary statements (GHS-US)

: P261 - Avoid breathing dust, fume, gas, mist, spray, vapors  
P272 - Contaminated work clothing must not be allowed out of the workplace  
P280 - Wear nitrile gloves  
P302+P352 - If on skin: Wash with plenty of water  
P321 - Specific treatment (see a doctor on this label)  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention  
P363 - Wash contaminated clothing before reuse  
P501 - Dispose of container in accordance with local, regional or national regulations

# Brand D Adhesive Part B

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### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
dibutyltin dilaurate	(CAS No) 77-58-7	< 0.24	Skin Corr. 1C, H314 Skin Sens. 1, H317 Muta. 2, H341 STOT SE 1, H370 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Non-hazardous components	n/a	99.76-100	n/a

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. If skin irritation or rash occurs: Wash immediately with lots of water. Remove clothing while washing. Get medical advice/attention. Specific treatment (see Wash skin with plenty of water on this label). Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: May cause an allergic skin reaction.
Symptoms/injuries after skin contact	: May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: No data available.
Symptoms/injuries after ingestion	: Harmful if swallowed.
Symptoms/injuries upon intravenous administration	: No effects known.
Chronic symptoms	: No effects known.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray.
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Explosion hazard	: Contains gas under pressure; may explode if heated.
Reactivity	: On burning: release of irritant gases/vapours (carbon monoxide - carbon dioxide).

### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

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**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

General measures : Evacuate area.

**6.1.1. For non-emergency personnel**

Emergency procedures : Evacuate unnecessary personnel.

**6.1.2. For emergency responders**

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

**6.2. Environmental precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Prevent soil and water pollution.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

**6.4. Reference to other sections**

See Heading 8. Exposure controls and personal protection.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust, fume, gas, mist, spray, vapors.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

**7.2. Conditions for safe storage, including any incompatibilities**

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Do not expose to temperatures exceeding 50 °C/ 122 °F, Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : ≤ 35 °C

Heat-ignition : KEEP SUBSTANCE AWAY FROM:

**7.3. Specific end use(s)**

No additional information available

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

dibutyltin dilaurate (77-58-7)		
USA ACGIH	ACGIH TWA (mg/m³)	0.1 mg/m³ (Tin organic compounds, as Sn; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (mg/m³)	0.2 mg/m³ (Tin organic compounds, as Sn; USA; Short time value; TLV - Adopted Value)

**8.2. Exposure controls**

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear nitrile gloves protective gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Other information : Do not eat, drink or smoke during use.

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**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Appearance	: Liquid.
Color	: Off-white
Odor	: slight
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: $\geq 93.3^{\circ}\text{C}$
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: $\approx 0.59\text{ mPa}$
Relative vapor density at 20 °C	: No data available
Specific Gravity	: $\approx 1.1$
Solubility	: Moderately soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

**9.2. Other information**

VOC content	: $< 5\text{ g/l}$ calculated per SCAQMD rule 443.1 when mixed with Part A
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**SECTION 10: Stability and reactivity****10.1. Reactivity**

On burning: release of irritant gases/vapours (carbon monoxide - carbon dioxide).

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

Not established.

**10.4. Conditions to avoid**

Extremely high or low temperatures.

**10.5. Incompatible materials**

Strong acids. Strong bases.

**10.6. Hazardous decomposition products**

fume. Carbon monoxide. Carbon dioxide.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

Acute toxicity	: Not classified
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dibutyltin dilaurate (77-58-7)	
LD50 oral rat	2071 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	$> 2000\text{ mg/kg}$ body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

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dibutyltin dilaurate (77-58-7)	
ATE US (oral)	2071.000 mg/kg body weight
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause an allergic skin reaction.
Symptoms/injuries after skin contact	: May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: No data available.
Symptoms/injuries after ingestion	: Harmful if swallowed.
Symptoms/injuries upon intravenous administration	: No effects known.
Chronic symptoms	: No effects known.
Other information	: Likely routes of exposure: inhalation.

## SECTION 12: Ecological information

## 12.1. Toxicity

dibutyltin dilaurate (77-58-7)	
Threshold limit algae 1	> 1 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Scenedesmus subspicatus; Static system; Fresh water; Experimental value)

## 12.2. Persistence and degradability

DUOTACK® SPF Adhesive Part B	
Persistence and degradability	Not established.

dibutyltin dilaurate (77-58-7)	
Persistence and degradability	Not readily biodegradable in water. No (test) data on mobility of the substance available. Not established.

## 12.3. Bioaccumulative potential

DUOTACK® SPF Adhesive Part B	
Bioaccumulative potential	Not established.

dibutyltin dilaurate (77-58-7)	
BCF fish 1	31 - 813 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 7 days; Carassius carassius; Flow-through system; Fresh water; Experimental value)
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ). Not established.

## 12.4. Mobility in soil

No additional information available

## 12.5. Other adverse effects

Effect on ozone layer	:
Effect on the global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.

## SECTION 13: Disposal considerations

## 13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of container in accordance with local, regional or national regulations.
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## Safety Data Sheet

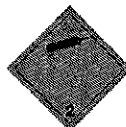
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Ecology - waste materials : Avoid release to the environment.

**SECTION 14: Transport information**

In accordance with DOT

Transport document description : UN3500 Chemical under pressure, n.o.s., 2.2  
UN-No.(DOT) : 3500  
DOT NA no. : UN3500  
DOT Proper Shipping Name : Chemical under pressure, n.o.s.  
Technical name : (1,1,1,2 Tetrafluoroethane, Nitrogen)  
Class (DOT) : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115  
Hazard labels (DOT) : 2.2 - Non-flammable gas



DOT Symbols : G - Identifies PSN requiring a technical name  
DOT Special Provisions (49 CFR 172.102) : T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied compressed gases are authorized to be transported in portable tanks in accordance with the requirements of 173.313 of this subchapter  
DOT Packaging Exceptions (49 CFR 173.xxx) : None  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 335  
DOT Packaging Bulk (49 CFR 173.xxx) : 313;315  
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg  
DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded

**Additional information**

Emergency Response Guide (ERG) Number : 126  
Other information : No supplementary information available.

**ADR**

Transport document description :

**Transport by sea**

UN-No. (IMDG) : 3500  
Proper Shipping Name (IMDG) : CHEMICAL UNDER PRESSURE, N.O.S.  
Class (IMDG) : 2 - Gases

**Air transport**

UN-No.(IATA) : 3500  
Proper Shipping Name (IATA) : Chemical under pressure, n.o.s.  
Class (IATA) : 2

**SECTION 15: Regulatory information****15.1. US Federal regulations****DUOTACK® SPF Adhesive Part B**

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

**15.2. International regulations****CANADA**

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## EU-Regulations

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

## 15.3. US State regulations

DUOTACK® SPF Adhesive Part B	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

## dibutyltin dilaurate (77-58-7)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	No	No	No	

## SECTION 16: Other information

Revision date : 05/10/2017

Other information : None.

Full text of H-phrases::

H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H341	Suspected of causing genetic defects
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard

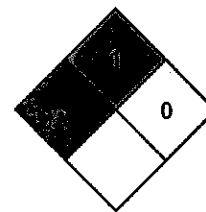
: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



## HMIS III Rating

SDS US (GHS HazCom 2012) - Custom

This SDS contains all the information required by ANSI Z400.1 standard (United States), by regulation 29 CFR Part 1910-1200 of the Hazard Communication Standard of OSHA and is in accordance with DORS/88-66 of WHMIS (Canada).

The best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.