

Safety Data Sheet

Issue Date: 20-Jan-2010

Revision Date: 16-Sep-2015

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Secure Bond II Primer & Bonding Agent

Other means of identification

SDS # 8704

UN/ID No UN1123

Recommended use of the chemical and restrictions on use

Recommended Use Primer.

Details of the supplier of the safety data sheet

Supplier Address

International Epoxies & Sealers
30241 Commerce Drive
San Antonio, FL 33576

Emergency Telephone Number

Company Phone Number 1-800-451-7206
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Clear, amber liquid

Physical State Liquid

Odor Mild, fruity

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Flammable Liquids	Category 3

Hazards Not Otherwise Classified (HNOC)

May be harmful if swallowed
May be harmful in contact with skin

Signal Word

Danger

Hazard Statements

Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
Suspected of causing cancer
May cause damage to organs through prolonged or repeated exposure
Flammable liquid and vapor

**Precautionary Statements - Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
IN CASE OF FIRE: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
t-Butyl Acetate	540-88-5	70-80
4,4' Diphenylmethane Diisocyanate	101-68-8	10-20
Methylenediphenyl diisocyanate	26447-40-5	<5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice	If exposed or concerned: Get medical advice/attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call Poison Control or doctor/physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects

Symptoms	May be harmful if swallowed. May be harmful in contact with skin. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Carbon dioxide (CO₂). Foam. Water spray (fog).

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Flammable Liquid. Vapors may spread long distances and ignite. Vapors or mist may be a fire and explosion hazard when exposed to high temperature or ignition. Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO₂ formed). Use cold-water spray to cool fire-exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and hot diisocyanate can be vigorous. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flashback. Vapors or fumes may form explosive mixture with air.

Hazardous Combustion Products During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Personal Precautions** Remove all sources of ignition, including flames, heat and sparks. Use appropriate personal protective equipment during clean up. Ventilate area to remove vapors or dust.
- Environmental Precautions** See Section 12 for additional Ecological Information. Do not allow spilled material or wash water to enter sewers, surface waters or groundwater systems.

Methods and material for containment and cleaning up

- Methods for Containment** Dike or dam spilled material and control further spillage, if possible.
- Methods for Clean-Up** Cover spill with inert material (e.g. dry sand or earth) and collect for proper disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

- Advice on Safe Handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Wash face, hands and any exposed skin thoroughly after handling. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Wear protective gloves/protective clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities

- Storage Conditions** Store locked up. Store in a well-ventilated place. Keep cool. Store between 15°C (60°F) and 30°C (85°F).
- Incompatible Materials** Water. Amines. Strong bases. Alcohols. Copper alloys.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
t-Butyl Acetate 540-88-5	TWA: 200 ppm	TWA: 200 ppm TWA: 950 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 950 mg/m ³	IDLH: 1500 ppm TWA: 200 ppm TWA: 950 mg/m ³
4,4' Diphenylmethane Diisocyanate 101-68-8	TWA: 0.005 ppm	(vacated) Ceiling: 0.02 ppm regulated under Methylene bisphenyl isocyanate (vacated) Ceiling: 0.2 mg/m ³ regulated under Methylene bisphenyl isocyanate Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	IDLH: 75 mg/m ³ Ceiling: 0.020 ppm 10 min Ceiling: 0.2 mg/m ³ 10 min TWA: 0.005 ppm TWA: 0.05 mg/m ³

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methylenediphenyl diisocyanate 26447-40-5	-	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	-

Appropriate engineering controls

Engineering Controls Showers. Eyewash stations. Ventilation systems.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Chemical splash goggles.
- Skin and Body Protection** Wear rubber, nitrile, or neoprene gloves. Wear suitable protective clothing.
- Respiratory Protection** Refer to 29 CFR 1910.134 for respiratory protection requirements.
- General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Mild, fruity
Appearance	Clear, amber liquid	Odor Threshold	Not determined
Color	Amber		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not established	
Melting Point/Freezing Point	Not established	
Boiling Point/Boiling Range	Not established	
Flash Point	20 °C / 68 °F	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	Not determined	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	160 cps	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Molecular weight	142	
Bulk Density	7.1 kg/m ³	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Contact with moisture, other materials that react with isocyanates, or excessive temperatures may cause polymerization.

Conditions to Avoid

Heat, flames and sparks. Incompatible Materials.

Incompatible Materials

Water. Amines. Strong bases. Alcohols. Copper alloys.

Hazardous Decomposition Products

By Fire and High Heat: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke., Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye Contact Causes serious eye irritation.

Skin Contact May be harmful in contact with skin. Causes skin irritation.

Inhalation Harmful if inhaled.

Ingestion May be harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
t-Butyl Acetate 540-88-5	= 4100 mg/kg (Rat)	> 2 g/kg (Rabbit)	> 2230 mg/m ³ (Rat) 4 h
4,4' Diphenylmethane Diisocyanate 101-68-8	= 31600 mg/kg (Rat) = 9200 mg/kg (Rat)	-	= 369 mg/m ³ (Rat) 4 h
Methylenediphenyl diisocyanate isomers (Polymeric MDI) 9016-87-9	= 49 g/kg (Rat)	> 9400 mg/kg (Rabbit)	= 490 mg/m ³ (Rat) 4 h
Triethyl orthoformate 122-51-0	= 7060 mg/kg (Rat)	= 20 mL/kg (Rabbit)	-
Methylenediphenyl diisocyanate 26447-40-5	> 7400 mg/kg (Rat)	> 6200 mg/kg (Rabbit)	= 0.369 mg/L (Rat) 4 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Carcinogenicity Suspected of causing cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
4,4' Diphenylmethane Diisocyanate 101-68-8		Group 3		
Methylenediphenyl diisocyanate isomers (Polymeric MDI) 9016-87-9		Group 3		

Chemical Name	ACGIH	IARC	NTP	OSHA
Methylenediphenyl diisocyanate 26447-40-5		Group 3		

Legend

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
t-Butyl Acetate 540-88-5		296 - 362: 96 h Pimephales promelas mg/L LC50 flow-through		
Triethyl orthoformate 122-51-0		592: 48 h Leuciscus idus mg/L LC50		
Methylenediphenyl diisocyanate 26447-40-5	3230: 96 h Skeletonema costatum mg/L EC50			1000: 24 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
t-Butyl Acetate 540-88-5	1.38
Triethyl orthoformate 122-51-0	1.2
Methylenediphenyl diisocyanate 26447-40-5	4.5

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

- Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN1123	DOT - Limited Quantity
Proper Shipping Name	Butyl acetates	Proper Shipping Name: Consumer Commodity
Hazard Class	3	Hazard Class or Division: ORM-D
Packing Group	III	

IATA

UN/ID No	UN1123
Proper Shipping Name	Butyl acetates
Hazard Class	3
Packing Group	III

IMDG

UN/ID No	UN1123
Proper Shipping Name	Butyl acetates
Hazard Class	3
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
t-Butyl Acetate	Present	X		Present		Present	X	Present	X	X
4,4' Diphenylmethane Diisocyanate	Present	X		Present		Present	X	Present	X	X
Methylenediphenyl diisocyanate	Present	X		Present		Present	X	Present	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
t-Butyl Acetate 540-88-5	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
4,4' Diphenylmethane Diisocyanate 101-68-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
4,4' Diphenylmethane Diisocyanate - 101-68-8	101-68-8	17	1.0
Methylenediphenyl diisocyanate isomers (Polymeric MDI) - 9016-87-9	9016-87-9	2	1.0
Methylenediphenyl diisocyanate - 26447-40-5	26447-40-5	1	1.0

CWA (Clean Water Act)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
t-Butyl Acetate				X

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
t-Butyl Acetate 540-88-5	X	X	X
4,4' Diphenylmethane Diisocyanate 101-68-8	X	X	X
Methylenediphenyl diisocyanate isomers (Polymeric MDI) 9016-87-9	X		
Triethyl orthoformate 122-51-0	X	X	X
Methylenediphenyl diisocyanate 26447-40-5	X	X	

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	2	3	1	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2*	3	1	Not determined

Chronic Hazard Star Legend * = *Chronic Health Hazard*

Issue Date: 20-Jan-2010
Revision Date: 16-Sep-2015
Revision Note: New format

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet