



MATERIAL SAFETY DATA SHEET

1. PRODUCT and COMPANY IDENTIFICATION

Manufacturer

SELENA USA, INC.
400 Northampton Street
Easton, PA 18042

Non Emergency Information

Telephone: SELENA USA, INC. (877) 735-3627 or (610) 330-6950

Emergency Information

Transportation Emergency Telephone: CHEMTREC 1-800-424-9300 The products listed below are registered by the manufacturer, SELENA USA, INC.

International Transportation Emergency: CHEMTREC (703) 527-3887

Product Name: TYTAN Professional One-Component Expanding Polyurethane Straw Foam Sealant
TYTAN Professional One-Component Triple Expanding Polyurethane Straw Foam Sealant
TYTAN Professional One-Component – PRO Expanding Polyurethane Gun Foam Sealant
TYTAN Professional Extreme Climate – PRO Expanding Polyurethane Gun Foam Sealant
TYTAN Professional 65 High Yield – PRO Expanding Polyurethane Gun Foam Sealant
TYTAN Professional Window & Door Expanding Polyurethane Straw Foam Sealant
TYTAN Professional Window & Door – PRO Expanding Polyurethane Gun Foam Sealant

Chemical Name: Liquid urethane prepolymer mixture (Polyurethane sealing foam)

2. COMPOSITION (Information on Ingredients)

Component	CAS No	Weight %
Chemical Name (common names)		
Methylenediphenyl diisocyanate Isomers (Polymeric MDI)	9016-87-9	23 - 26
Polyether Poly Blend (Polyether Poly Blend)	confidential	34 - 37
Butane (Butane)	106-97-8	5 - 8
Propane (Propane)	74-98-6	4 - 6
Isobutane (Isobutane)	75-28-5	4 - 6
dimethyl ether (DME)	115-10-6	2 - 4
1,1,1,2 tetrafluoroethane (tetrafluoroethane)	811-97-2	3 - 7
4,4'diphenylmethanediisocyanate (MDI)	101-68-8	18 - 20
2,4'diphenylmethanediisocyanate (MDI)	5873-54-1	1 - 1.5
See Section 8 of this MSDS for Exposure Guidelines		

3. HAZARDS IDENTIFICATION

Physical Hazards

ATTENTION! Aerosol. Container is pressurized and storing temperature should not exceed 120°F (50 °C) in order to avoid pressure build-up and possible container rupture. The foam will adhere easily to skin and other surfaces. If accidental foam contact occurs, follow the appropriate first-aid procedure described in Section 4 of this MSDS.

Potential Health Effects

This product contains Polymeric Isocyanate (MDI). The primary adverse health effect(s) of this material are related to the isocyanate and, in a lesser degree, the gas components. Therefore, adequate ventilation should be provided to avoid exceeding the exposure limits of these components (See Section 8). It is not likely that the limits will be exceeded due to the low concentration of vapor produced during its normal use. However, if used indoors, mechanical ventilation or exhaust should be provided during use and until foam is in cured state.

Exposure Routes

Inhalation: Vapors may irritate mucous membranes with tightness in chest, coughing, wheeziness, or allergic asthma-like sensitivity. Extensive overexposure can lead to respiratory symptoms like bronchitis and pulmonary edema. These effects are usually reversible.



Overexposure to gases may cause light headedness, headaches, or lethargy. Persons with cardiac arrhythmia may be at increased risk in severe exposure.

Skin Contact: May cause localized irritation, reddening and/or swelling. Prolonged or repeated exposure may lead to sensitization blistering, and/or dermatitis.

Eye Contact: May irritate eyes. For its adhesive feature, the foam contact with eyes may cause physical damage due to adhesive properties.

Ingestion: May cause irritation of mucous membranes in oral cavity and in digestive system.

The medical conditions, if any that may deteriorate through the contact with product are not known.

4. FIRST AID MEASURES

Inhalation: If breathing difficulty is experienced, move to a fresh air place. If necessary, provide oxygen or artificial respiration by trained personnel and obtain medical attention.

Skin Contact: Remove the foam from skin using a cloth. Remove contaminated clothes immediately. Remove uncured foam from skin using delicate solvent like acetone or mineral spirits (avoid contact with eyes). Hardened foam may be removed by persistent washing with soap and large water quantity. If irritation develops, use a delicate cream. If symptoms persist, in case of redness seek medical attention.

Eye Contact: Bath eye immediately with a large amount of water for at least 15 minutes. See medical attention immediately.

Ingestion: DO NOT INDUCE VOMITING! Drink 1- 2 glasses of water or milk. Do not give anything orally to an unconscious person. Contact a physician immediately.

Caution: The long-term contact with the skin may cause non carcinogenic dermatitis.

5. FIRE FIGHTING MEASURES

Flash Point: -4F (-20C)

Flammable Limits:

Lower Explosive Limit 1.8%

Upper Explosive Limit 8.4%

High temperatures will raise the pressure in the container, which may cause container rupture.

Extinguishing media: CO2, dry chemical foam, normal foam, water spray, if a large quantity was used. (Note: water contamination is a source of carbon dioxide.)

Special Fire-fighting Procedures: Wear self-contained breathing apparatus (SCBA) to protect against inhalation of smoke and toxic decomposition by-products such as carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide. Hardened foam is an organic matter and will burn in the presence of sufficient heat, oxygen and ignition source.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ensure adequate ventilation and wear recommended protective clothing (face protection, protective clothes and gloves. Vapors can accumulate in low areas. Do not smoke and avoid ignition from sparking.

Environmental Precautions: Before disposing of containers, relieve container of any remaining foam and pressure. Dispose of plastic waste material (foam plastic) in accordance with all applicable guidelines and regulations.

Clean-up Methods: Uncured foam adheres easily to skin and surfaces. Remove from skin following first aid treatment (See Section 4). Remove from surfaces by scraping up excess material and removing residual residue with a cloth and solvent such as acetone or mineral spirits, paint thinner, etc. Hardened foam can only be removed physically or mechanically by scraping, buffing, etc.

7. HANDLING AND STORAGE

Handling: Warning Flammable Contents! Keep away from heat, open flame and all sources of ignition.

Storage: Store in a cool, dry place. Recommended storage temperature is between 40F to 78F (4.4C to 25.5C). Do not store above 104F (40C) will shorten shelf life. Protect containers from heat. Contents are under pressure, do not pierce the containers. Protect from freezing.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION		
<p>Read all product instructions before using. Personal protective equipment should include safety eye wear, chemical resistant gloves, and long sleeve work clothes. Adequate ventilation should be used to avoid exceeding recommended vapour level guidelines. If vapour levels are expected to exceed these guidelines, use NIOSH/MSHA approved, positive pressure supplied air respiratory apparatus (SCBA). Employ good personal hygiene, wash thoroughly after each use.</p>		
Exposure Guidelines	OSHA	ACGIH
Methylenediphenyl diisocyanate Isomers (Polymeric MDI)	0.02 ppm ceiling	0.005 ppm TWA
Polyether Poly Blend (Polyether Poly Blend)	None Established	None Established
Butane (Butane)	10,000 ppm	2,500 ppm TWA
Propane (Propane)	10,000 ppm	2,500 ppm TWA
Isobutane (Isobutane)	10,000 ppm	2,500 ppm TWA
dimethyl ether (DME)	None Established	None Established
1,1,1,2 tetrafluoroethane (tetrafluoroethane)	1,000 ppm	1,000 ppm TWA
4,4'diphenylmethanediisocyanate (MDI)	0.02 ppm ceiling	0.005 ppm TWA
2,4'diphenylmethanediisocyanate (MDI)	0.200 mg/m ³ ceiling	0.051 mg/m ³ TWA
<p>None of the components in this product are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.</p>		

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Viscous liquid which foams upon aromatic release from container.
Appearance:	Polyurethane foam which upon release from container is a froth like substance till it begins to cure.
Color:	Yellow
Odor:	Slight fluorocarbon odor before cured state. Odorless when cured.
Specific Gravity:	Approximately 1.2 (H ₂ O = 1)
Boiling Point:	None Established
Flash Point:	-4F (-2°C) based on propellant (propane/butane)
Self-Flammability:	over 750F (399°C)
Auto-Flammability:	over 750F (399°C)
pH:	slightly alkaline
Vapor Pressure:	In the pressurized container the vapor pressure exceeds 500 kPa. After foam release, the vapor pressure is very low (not declared)
Solubility in Water:	Not soluble. Reacts with water slowly during hardening, incommensurable quantities of CO ₂ .
Explosion data:	None Established

10. STABILITY AND REACTIVITY

This product is stable in normal storing conditions. Avoid storing temperatures exceeding 104°F (40°C) . Protect against mechanical shocks. Avoid heat and moisture. Strongly reacts with substances such as oxidizers, acids, base, amines, aluminium, copper, alcohols, metal compounds. Avoid contact with oxidizing agent, sparks, open flame, ignition sources.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Short term oral toxicity. LD ₅₀ = 5000 mg/kg (rat).
Skin contact:	LD ₅₀ = 5000 mg/kg (rat)
Inhalation:	LD ₅₀ = 0.49 mg/l (rat – 4 hours inhalation).
Irritating action:	Irritates eyes, contact with eyes may cause cornea damage.
Allergies:	Prolonged contact with skin may cause an allergic reaction. Prolonged toxicity close to acute and chronic vapor inspiration may result in irritation of airways, mucous membranes causing cough, breathing difficulties, and headache. Symptoms may appear with delay. Big product quantity may cause strangulation. Skin contact causes acute burn.
Additional toxicological Information:	Prepolymer included inside forms neutral polyurethane when contact with humidity occurs.

**12. ECOLOGICAL INFORMATION**

Biodegradation:	Not Established
Chemical degradation:	Not Established
Bioaccumulation:	Not Established
Agility:	Not Established
Toxicity influence on Organisms:	Not Established
Toxicity in water:	Not Established
Other toxicity:	Not Established

13. DISPOSAL CONSIDERATIONS

Before disposing of containers, relieve container of any remaining foam and pressure. Dispose of plastic waste material (foam plastic) in accordance with all applicable guidelines and regulations. Avoid discharge to natural waters.

14. TRANSPORTATION INFORMATIONShipping Information

	Containers Less than 1,000 cu. cm. (1 litre) i.e. 12, 20, 24, and 32 oz.
DOT (Ground):	Aerosol Expanding Foam, Consumer Commodity, ORM-D, limited quantity
Hazard Class:	Aerosols, Consumer Commodity ORM-D, Class 2.1, UN 1950, limited quantity
Air:	Aerosols, Class 2.1 UN 1950 (Flammable Gas Label)
Water:	Aerosols, Class 2.1 UN 1950 (Flammable Gas Label)
Exceptions:	N/A

15. REGULATORY INFORMATIONToxic Substances Control Act (TSCA) Designated Substances List (DSL):

All ingredients are listed on the TSCA inventory, as well as the Canadian Designated Substances List. This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

SARA Title III:

Contains the following components which are subject to the reporting requirements of SARA Title III.

Methylenediphenyl diisocyanate Isomers (Polymeric MDI)	(CAS # 9016-87-9)
4,4'diphenylmethanediisocyanate (MDI)	(CAS # 101-68-8)
2,4'diphenylmethanediisocyanate (MDI)	(CAS # 5873-54-1)

Proposition 65:

Based on information currently available, this product is not known to contain detectable amounts of any chemicals currently listed under California Proposition 65.

16. OTHER

NFPA: Fire 3; Health 2; Reactivity 1
HMIS: Flammability 3; Health 1; Reactivity 1
NFPA 30B Classification: Level 3 Aerosol

The information and recommendations contained herein are presented in good faith and believed to be correct as of the date hereof. The manufacturer makes no representations as to the completeness or accuracy thereof. Information supplied upon the condition that the persons receiving said information will make their own determination as to its suitability for their particular purpose prior to use. In no event will the manufacturer be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either expressed or implied, including the merchantability or fitness for a particular purpose are made herein with respect to this information or the product to which information refers.

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