TYTAN PROFESSIONAL FIRE BLOCK EXTREME

SAFETY DATA SHEET Date of Preparation: March 10, 2023

Section 1: IDENTIFICATION

Product Name:	**TYTAN PROFESSIONAL FIRE BLOCK EXTREME**
Synonyms:	Not available.
Product Use:	Foam Sealant.
Restrictions on Use:	Not available.
Manufacturer/Supplier:	Selena USA, Inc. 4055 International Plaza, Suite 640 Fort Worth, 76109
Emergency Phone:	ChemTrec: 1-800-424-9300
Date of Preparation of SDS:	March 10, 2023

Section 2: HAZARD(S) IDENTIFICATION

GHS INFORMATION

Classification:
Flammable Aerosols, Category 1
Acute Toxicity - Inhalation, Category 4
Skin Irritation, Category 2
Eye Irritation, Category 2A
Sensitization - Respiratory, Category 1
Sensitization - Skin, Category 1
Carcinogenicity, Category 2
Reproductive Toxicity, Effects on or via Lactation
Specific Target Organ Toxicity (Single Exposure), Category 3 - Respiratory Irritation
Specific Target Organ Toxicity (Repeated Exposure), Category 2

LABEL ELEMENTS

Hazard Pictogram(s):

Signal Word: Danger

Hazard Statements:
Extremely flammable aerosol.
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 harm to breast-fed children.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Do not breathe mist, vapours, or spray.
Avoid contact during pregnancy and while nursing.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves, protective clothing and eye protection.
Wear respiratory protection.

Response:
IF ON SKIN: Wash with plenty of water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical attention.
Call a POISON CENTER or doctor if you feel unwell.
If skin irritation or rash occurs: Get medical attention.
If eye irritation persists: Get medical attention.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
Take off contaminated clothing and wash it before reuse.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

Disposal:
Dispose of contents and container in accordance with applicable regional, national and local laws and regulations.

Hazards Not Otherwise Classified: Not applicable.

Ingredients with Unknown Toxicity: 23% of this product mixture consists of ingredient(s) of unknown acute toxicity.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

This material is considered hazardous by the Workplace Hazardous Material Information System (WHMIS) 2015.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	Common name / Synonyms	CAS No.	% wt./wt.

Isocyanic acid, polymethylenepolyphenylene ester	Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	30 - 60
Reaction products of phosphoryl trichloride and 2-methyloxirane	Tris(2-chlorisopropyl)-phosphate	1244733-77-4	7 - 13
Propane, 2-methyl-	Isobutane	75-28-5	7 -13
Propane	Propane	74-98-6	1-5
Ethane, 1,1-difluoro-	1,1-Difluoroethane	75-37-6	1-5
Benzene,1-isocyanato-2-[(4- 2,4'-isocyanatophenyl)methyl]-	Diphenylmethane diisocyanate	5873-54-1	1 - 5
Dimethyl ether	Dimethyl ether	115-10-6	1 -5
Alkanes, C14-17, chloro	Chlorinated paraffins, C14-17	85535-85-9	10 - 30

Actual concentration range(s) withheld as a trade secret.

Section 4: FIRST-AID MEASURES

Inhalation:

If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or doctor.

Acute and delayed symptoms and effects: Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. At room temperature, MDI vapors are minimal due to low volatility. However, certain operations may generate vapor or mist concentrations sufficient to cause respiratory irritation and other adverse effects. Such operations include those in which the material is heated, sprayed or otherwise mechanically dispersed. Allergy-prone people who have been sensitized to isocyanates or even have not been previously exposed to isocyanates may experience symptoms at concentrations as low as 0.0014 ppm. Asthma sufferers or people who easily get contact dermatitis should therefore not be exposed to isocyanates.

Eye Contact:

If in eyes: Rinse cautiously with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. PMDI may cause severe watering, formation of

	solid particles in the eye fluid, glaucoma, photophobia (sensitivity to light), blepharospasm (uncontrollable winking), conjunctivitis (inflammation of the mucous membranes of the eye lids with possible discharge), keratitis (inflammation of the cornea) and damage the cornea (opacity or clouding). Isocyanates may cause severe watering, formation of solid particles in the eye fluid, glaucoma, photophobia (sensitivity to light), blepharospasm (uncontrollable winking), conjunctivitis (inflammation of the mucous membranes of the eye lids with possible discharge), keratitis (inflammation of the cornea) and damage the cornea (opacity or clouding).
Skin Contact:	If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.
	Acute and delayed symptoms and effects: May cause an allergic skin reaction. Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching. Prolonged skin contact may cause redness, swelling, blistering and possible skin sensitization (dermatitis). MDI compounds have a mild tanning action on the skin.
Ingestion:	If swallowed: Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
	Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
General Advice:	In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).
Note to Physicians:	Symptoms may not appear immediately.

Section 5: FIRE-FIGHTING MEASURES

FLAMMABILITY AND EXPLOSION INFORMATION
Extremely flammable aerosol. Some may burn but none ignite readily. Containers may explode when heated. Ruptured containers may rocket.

If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Fire involving Tanks: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Do not direct water at source of leak or safety devices; icing may occur. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. Some of these materials, if spilled, may evaporate leaving a flammable residue.

Sensitivity to Mechanical Impact: This material is not sensitive to mechanical impact.

Sensitivity to Static Discharge:	This material is sensitive to static discharge.
MEANS OF EXTINCTION **Suitable Extinguishing Media:**	Small Fire: Dry chemical or CO2. Use extinguishing agent suitable for type of surrounding fire. Large Fire: Water spray, fog or regular foam. Move containers from fire area if you can do it without risk. Damaged containers should be handled only by specialists.
Unsuitable Extinguishing Media:	Not available.
Products of Combustion:	Oxides of carbon. Oxides of nitrogen. Hydrogen chloride. Chlorine. Hydrogen cyanide. Isocyanate vapours.
Protection of Firefighters:	Vapors may cause dizziness or asphyxiation without warning. Vapors from liquefied gas are initially heavier than air and spread along ground. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite. Fire may produce irritating, corrosive and/or toxic gases. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing will only provide limited protection.

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Keep out of low areas. Ventilate closed spaces before entering.
Personal Precautions:	Use personal protection recommended in Section 8.
Environmental Precautions:	Prevent entry into waterways, sewers, basements or confined areas.
Methods for Containment:	Stop leak if you can do it without risk. Do not direct water at spill or source of leak. Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. If possible, turn leaking containers so that gas escapes rather than liquid.
Methods for Clean-Up:	Allow substance to evaporate. Ventilate the area.
Other Information:	See Section 13 for disposal considerations.

Section 7: HANDLING AND STORAGE

Handling:
Do not swallow. Do not breathe mist, vapours, or spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid contact during pregnancy and while nursing. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. See Section 8 for information on Personal Protective Equipment.

Storage:
Limit quantity of material in storage. Restrict access to storage area. Post appropriate warning signs. Keep storage area separate from populated work areas. Consider leak detection and alarm systems, as required. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines
Component

Polymeric Methylene Diphenyl Diisocyanate (PMDI) [CAS No. 9016-87-9]

ACGIH: 0.005 ppm (TWA); (1985), For Methylene bisphenyl isocyanate (MDI)

OSHA: 0.02 ppm (C), 0.2 mg/m³ (C); For Methylene bisphenyl isocyanate (MDI)

4,4'-Diphenylmethane diisocyanate [CAS No. 101-68-8]

ACGIH: 0.005 ppm (TWA); (1985) ++

OSHA: 0.02 ppm (C), 0.2 mg/m³ (C);

Alkanes, C14-17, chloro [CAS No. 85535-85-9]

ACGIH: No TLV established.

OSHA: No PEL established.

Isobutane [CAS No. 75-28-5]

ACGIH: 1000 ppm (STEL); Explosion hazard (2012)

OSHA: No PEL established.

Dimethyl ether [CAS No. 115-10-6]

ACGIH: No TLV established.

OSHA: No PEL established.

Propane [CAS No. 74-98-6]

ACGIH: Simple asphyxiant; Explosion hazard

OSHA: 1000 ppm (TWA), 1800 mg/m³ (TWA)

1,1-Difluoroethane [CAS No. 75-37-6]

ACGIH: No TLV established.

OSHA: No PEL established

2,4'-Diphenylmethane diisocyanate [CAS No. 5873-54-1]

ACGIH: No TLV established.
OSHA: No PEL established

PEL: Permissible Exposure Limit
TLV: Threshold Limit Value
TWA: Time-Weighted Average
STEL: Short-Term Exposure Limit
C: Ceiling

Engineering Controls:	Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection:	Wear chemical safety goggles. Ensure that eyewash stations are close to the workstation location. Use equipment for eye protection that meets the standards referenced by CSA Standard CAN/CSA-Z94.3:20 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.
Hand Protection:	Wear protective gloves. Consult manufacturer specifications for further information.
Skin and Body Protection:	Wear protective clothing.
Respiratory Protection:	Wear respiratory protection. If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4-18, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.
General Hygiene Considerations:	Handle according to established industrial hygiene and safety practices. Consult a competent industrial hygienist

to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Rapidly curing foam dispensed by gaseous propellant from an aerosol container.
Colour:	Pale yellow.
Odour:	Characteristic.
Odour Threshold:	Not available.
Physical State:	Liquid.
Ph:	Not available.
Melting Point / Freezing Point:	Not available.
Initial Boiling Point:	Not available.
Boiling Range:	Not available.
Flash Point:	Not available.
Evaporation Rate:	Not available.
Flammability (solid, gas):	Not applicable.
Lower Flammability Limit:	Not available.
Upper Flammability Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.
Relative Density:	Not available.
Solubilities:	Insoluble in water.
Partition Coefficient: n-Octanol/Water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Percent Volatile, wt. %:	Not available.
VOC content, wt. %:	Not available.
Density:	Not available.

Coefficient of Water/Oil Distribution:	Not available.

Section 10: STABILITY AND REACTIVITY

Reactivity:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Chemical Stability:	Stable under normal storage conditions.
Possibility of Hazardous Reactions:	None known,
Conditions to Avoid:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Incompatible Materials:	Acids. Bases. Oxidizers. Alkali metals. Metals. Amines. Alcohols.
Hazardous Decomposition Products:	Isocyanate vapours. Carbon dioxide.

Section 11: TOXICOLOGICAL INFORMATION

EFFECTS OF ACUTE EXPOSURE

Product Toxicity

Oral:	Not available.
Dermal:	Not available.
Inhalation:	Not available.

Component Toxicity

Component	CAS No.	LD_{50} oral	LD_{50} dermal	LC_{50}
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	49000 mg/kg (rat)	> 9400 mg/kg (rabbit)	490 mg/m³ (rat); 4H
4,4'-Diphenylmethane diisocyanate	101-68-8	2200 mg/kg (mouse)	Not available.	178 mg/m³ (rat);
Dimethyl ether	115-10-6	Not available.	Not available.	308000 mg/m³ (rat);
Isobutane	75-28-5	Not available.	Not available.	570000 ppm (rat); 15M
1,1-Difluoroethane	75-37-6	Not available.	Not available.	977000 mg/m³ (rat); 2H
2,4'-Diphenylmethane diisocyanate	5873-54-1	Not available.	Not available.	Not available.
Alkanes, C14-17, chloro	85535-85-9	Not available.	Not available.	Not available.
Propane	74-98-6	Not available.	Not available.	Not available.

Likely Routes of Exposure:	Eye contact. Skin contact. Inhalation. Ingestion.
Target Organs:	Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Cardiovascular system. Central nervous system.

Symptoms (including delayed and immediate effects)

Inhalation: Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. At room temperature, MDI vapors are minimal due to low volatility. However, certain operations may generate vapor or mist concentrations sufficient to cause respiratory irritation and other adverse effects. Such operations include those in which the material is heated, sprayed or otherwise mechanically dispersed. Allergy-prone people who have been sensitized to isocyanates or even have not been previously exposed to isocyanates may experience symptoms at concentrations as low as 0.0014 ppm. Asthma sufferers or people who easily get contact dermatitis should therefore not be exposed to isocyanates.

Eye: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. PMDI may cause severe watering, formation of solid particles in the eye fluid, glaucoma, photophobia (sensitivity to light), blepharospasm (uncontrollable winking), conjunctivitis (inflammation of the mucous membranes of the eye lids with possible discharge), keratitis (inflammation of the cornea) and damage the cornea (opacity or clouding).

Skin: May cause an allergic skin reaction. Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching. Prolonged skin contact may cause redness, swelling, blistering and possible skin sensitization (dermatitis). MDI compounds have a mild tanning action on the skin.

Ingestion: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Skin Sensitization: Hazardous by OSHA/WHMIS criteria. May cause sensitisation through skin contact.

Respiratory Sensitization: Hazardous by OSHA/WHMIS criteria. May cause sensitisation through inhalation.

Medical Conditions Aggravated By Exposure: Not available.

EFFECTS OF CHRONIC EXPOSURE (from short and long-term exposure)

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Cardiovascular system. Central nervous system.

Chronic Effects: Hazardous by OSHA/WHMIS criteria. May cause chronic effects. Prolonged or repeated contact may dry skin and cause irritation.

Carcinogenicity: May cause cancer.

Component Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Prop 65
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	Not listed.	Group 3	Not listed.	Not listed.	Not listed.
4,4'-Diphenylmethane diisocyanate	Not listed.	Group 3	Not listed.	Not listed.	Not listed.

Mutagenicity: Based on available data, the classification criteria are not met.

Reproductive Effects: May cause harm to breast-fed children. Avoid contact during pregnancy and while nursing. Possible risk of impaired fertility.

Developmental Effects

Teratogenicity: Not available.

Embryotoxicity: Not available.

Toxicologically Synergistic Materials: Not available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

Persistence / Degradability: Not available.

Bioaccumulation / Accumulation: Not available.

Mobility in Environment: Not available.

Other Adverse Effects: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions: Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Section 14: TRANSPORT INFORMATION

IMDG

Proper Shipping Name: UN1950, AEROSOLS, 2.1

Class: 2.1

UN Number: UN1950

Packing Group: Not applicable.

Placard(s):

U.S. Department of Transportation (DOT)

Proper Shipping Name:	UN1950, AEROSOLS, 2.1
Class:	2.1
UN Number:	UN1950
Packing Group:	Not applicable.
Placard(s):	

Canada Transportation of Dangerous Goods (TDG)

Proper Shipping Name:	UN1950, AEROSOLS, 2.1
Class:	2.1
UN Number:	UN1950
Packing Group:	Not applicable.
Placard(s):	

Section 15: REGULATORY INFORMATION

Chemical Inventories

US (TSCA)
The components of this product are in compliance with the chemical notification requirements of TSCA.

Canada (DSL)
The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

Federal Regulations

United States
This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Canada
This SDS has been prepared to meet the Workplace Hazardous Material Information System (WHMIS) 2015.

SARA Title III

Component	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313	RCRA CODE	CAA 112(r) TQ (lbs.)
Polymeric Methylene Diphenyl Diisocyanate	Not listed.	Not listed.	Not listed.	313#	Not listed.	Not listed.
4,4'-Diphenylmethane diisocyanate	Not listed.	Not listed.	5000	313#	Not listed.	Not listed.
Dimethyl ether	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.	10000
Isobutane	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.	10000
1,1-Difluoroethane	Not listed.	Not listed.	Not listed.	Not listed	Not listed	10000

State Regulations

Massachusetts

US Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Component	CAS No.	RTK List
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	Listed.
4,4'-Diphenylmethane diisocyanate	101-68-8	Listed.
Dimethyl ether	115-10-6	Listed.
Propane	74-98-6	Listed.
Isobutane	75-28-5	Listed.
1,1-Difluoroethane	75-37-6	Listed.

New Jersey

US New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Component	CAS No.	RTK List
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	Listed.
4,4'-Diphenylmethane diisocyanate	101-68-8	Listed.
Propane	74-98-6	Listed.
1,1-Difluoroethane	75-37-6	Listed
Dimethyl ether	115-10-6	SHHS
Isobutane	75-28-5	SHHS

Note: SHHS = Special Health Hazard Substance

Pennsylvania

US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Component	CAS No.	RTK List
4,4'-Diphenylmethane diisocyanate	101-68-8	E
Dimethyl ether	115-10-6	Listed.
Propane	74-98-6	Listed.

Isobutane	75-28-5	Listed.
1,1-Difluoroethane	75-37-6	Listed

Note: E = Environmental Hazard

Section 16: OTHER INFORMATION

Disclaimer:
The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for their own particular use.

Date of Preparation of SDS:	March 10, 2023
Version:	1.0
GHS SDS Prepared by:	Product Stewardship Department, Selena USA Inc.