

SAFETY DATA SHEET

Flex

Section 1: Product and Company Identification

Trade Name: TSW

Product Name: Flex

Manufacturer:

Tri-State Waterstoppers, LLC
99 Depot Street,
Youngwood, PA 15697, United States
Phone 724-635-3389

24 Hour Emergency Contact Number:

724-880-9698

Section 2: Hazards Identification

GHS Classifications

Health:

Acute Toxicity (Inhalation), Category 4
Skin Irritation, Category 2
Eye Irritation, Category 2
Respiratory Sensitization, Category 1
Skin Sensitization, Category 1
Target organ toxicity single exposure, Category 3
Target organ toxicity repeated exposure, Category 2
Reproductive Toxicity, Category 1B

GHS Label



Health hazard



Exclamation mark

Signal Word: Danger.

Hazard Statements

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.

H360: May damage fertility or the unborn child.

H373: May cause damage to respiratory system through prolonged or repeated exposure.

Precautionary Statements

Prevention:

P260: Do not breathe mist, vapors or spray.

P264: Wash hands thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves, protective clothing, eye protection and face protection.

P285: In case of inadequate ventilation wear respiratory protection.

Response:

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P333+P313: If skin irritation or rash occurs: Get medical attention.

P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or physician.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical attention.

P308+P313: IF exposed or concerned: Get medical advice.

Section 3: Composition/Information on Ingredients

Component	% (weight)	Product Identifier
MDI Prepolymer	20-40	CAS No. 59675-67-1
Diphenylmethane 4,4'-diisocyanate	20-40	CAS No. 101-68-8
Polymeric diphenylmethane diisocyanate	20-40	CAS No. 9016-87-9
1,3-dioxolan-2-one, 4-methyl-	≤ 10	CAS No. 108-32-7
Dibutyltin dilaurate	< 1	CAS No. 77-58-7

Section 4: First Aid Measures

Eye Contact: Immediately flush eyes with plenty of water. Remove contact lenses, if present. Seek medical attention if irritation persists.

Skin Contact: Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Seek medical attention if irritation or rash occurs.

Ingestion: If person is conscious, wash out mouth with water. Do not induce vomiting unless instructed to do so by a poison center or physician.

Inhalation: Move person to fresh air. Seek medical attention if symptoms of respiratory distress occur. Symptoms may be delayed for several hours.

Section 5: Firefighting Measures

Extinguishing Media: Water fog, foam, dry chemical or carbon dioxide.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides, isocyanates and trace amounts of hydrogen cyanide.

Explosion Hazards: Water contamination produces carbon dioxide gas. This may cause pressurization or explosion of containers.

Fire Fighting Procedures: Standard.

Fire Fighting Equipment: Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing.

Section 6: Accidental Release Measures

Personal Protection: Wear protective equipment listed in Section 8.

Spill Procedures: Isolate the hazard and deny entry to unnecessary and unprotected personnel. Do not walk through or otherwise scatter spilled material. Small spills: Absorb with dry chemical absorbent, earth, sand or any other inert material. Allow to stand uncovered 48 hours before closing container. Large spills: Create a dike or trench to contain product. Follow same procedure as for a small spill.

Environmental Precautions and Cleanup Methods: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Clean spill area with a decontamination solution. Suggested formulation: Sodium carbonate (5-10%), liquid detergent (1-2%), water (88-94%). Alternate formulation: Concentrated ammonia (3-8%), liquid detergent (1-2%), water (90-96%). Ensure adequate ventilation to prevent overexposure of ammonia.

Section 7: Handling and Storage

Handling: Do not get in eyes, on skin or on clothing. Wash hands before eating, drinking or smoking. Do not breathe vapors or mists. Use only with adequate ventilation. Keep container closed when not in use. Do not reseal if contaminated. Keep away from heat and flame.

Storage: Store in tightly closed containers in cool, dry and well-ventilated area away from heat or sources of ignition. Keep out of direct sunlight.

Storage Temperature: 4.4°C – 32.2°C (40°F - 90°F).

Section 8: Exposure Controls/Personal Protection

Exposure limits:

Component	CAS No.	OSHA/PEL	ACGIH/TLV
Diphenylmethane 4,4'-diisocyanate	101-68-8	0.02 ppm (Ceiling) 0.20 mg/m ³ (Ceiling)	0.005 ppm 0.051 mg/m ³

Dibutyltin dilaurate	77-58-7	0.1 mg/m ³	0.1 mg/m ³ 0.2 mg/m ³ (STEL)
----------------------	---------	-----------------------	---

Engineering Controls: Local exhaust ventilation used in combination with general ventilation as necessary to control air contaminants.

Eye/Face Protection: Wear a face shield and chemical safety glasses or goggles.

Skin Protection: Wear impervious gloves. Cover exposed skin.

Respiratory Protection: For airborne exposure above the exposure limit(s), wear a NIOSH approved air-purifying respirator equipped with organic vapor cartridges. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator.

Section 9: Physical and Chemical Properties

Appearance	Light yellow liquid.
Odor	Slightly musty.
Odor Threshold	No data.
Melting Point	No data.
Freezing Point	No data.
Boiling Point	No data.
Flash Point (Closed Cup)	> 300°C (572°F)
Evaporation Rate	No data.
Flammable Limits In Air	No data.
Vapor Pressure	< 0.0001 mmHg at 25°C (77°F)
Vapor Density (air = 1)	Heavier than air.
Solubility in water	Partial, reacts with water.
Autoignition Temperature	No data.
Decomposition Temperature	No data.
Specific Gravity (water = 1)	1.15 at 25°C (77°F)
Viscosity (centipoise)	500 at 25°C (77°F)

Section 10: Stability and Reactivity

Stability: Stable.

Hazardous Polymerization: Can be caused by elevated temperatures.

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, isocyanates and trace amounts of hydrogen cyanide.

Incompatibilities: This product will react with any materials containing active hydrogens such as water, alcohol, amines, bases and acids. The reaction with water is very slow under 50°C (122°F), but is accelerated at higher temperatures.

Section 11: Toxicological Information

Acute:

Component	Oral LD ₅₀ (rat)	Dermal LD ₅₀ (rabbit)	Inhalation LC ₅₀ (rat)
Diphenylmethane 4,4'-diisocyanate	> 10000 mg/kg	> 9400 mg/kg	0.49 mg/L/4h (respirable aerosol)
1,3-dioxolan-2-one, 4-methyl-	29100 mg/kg	23800 mg/kg	
Dibutyltin dilaurate	> 2000 mg/kg	> 2000 mg/kg	

Carcinogenicity:

IARC: Not regulated as a carcinogen.

NTP: Not regulated as a carcinogen.

OSHA: Not regulated as a carcinogen.

Section 12: Ecological Information

Ecotoxicological Information:

MDI: LC₅₀ (zebra fish) > 500 mg/L/96h. EC₅₀ (Daphnia magna) > 500 mg/L/24h.

Section 13: Disposal Considerations

Disposal Method: Dispose in accordance with local, state, provincial or national regulations.

Empty Container: Decontaminate and pass to an approved drum recycler or destroy.

RCRA/EPA Waste Information: If discarded in its purchased form, this material is not a RCRA hazardous waste.

General Comments: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured into drains, sewers or waterways.

Section 14: Transport Information

U.S. DOT: Not regulated when shipped below regulated quantity (RQ).

ICAO/IATA: Not regulated.

IMO/IMDG: Not regulated.

Section 15: Regulatory Information

United States

SARA Title III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories: Acute, Chronic, Reactive.

313 Reportable Components:

Component	CAS No.
Diphenylmethane 4,4'-diisocyanate (Category Diisocyanate Compounds)	101-68-8
Polymeric diphenylmethane diisocyanate (Category Diisocyanate Compounds)	9016-87-9

CERCLA (Comprehensive Environmental Response and Liability Act)

Component	RQ (lbs)
Diphenylmethane 4,4'-diisocyanate	5000

TSCA (Toxic Substances Control Act): All components are on TSCA inventory.

RCRA Status: If discarded in its purchased form, this material is not a RCRA hazardous waste.

National Response Center: Any spill or release to the environment above the RQ must be reported to the National Response Center (800-424-8802).

Section 16: Other Information

Date Issued: October 5, 2005

Revised: June 5, 2018, Rev #9

Changed from previous version: Section 4 First Aid Measures

Manufacturer Disclaimer: The information in this SDS was obtained from sources that we believe are reliable. The information is provided without warranty, implied or expressed, concerning accuracy. The manufacturer assumes no legal responsibility for use or reliance on this information. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. This SDS is not a specification data sheet. Some of the information and conclusions may be derived from sources other than test data on the material itself.

Abbreviations and Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
EC ₅₀	Median effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC ₅₀	Lethal concentration to 50% of exposed laboratory animals
LD ₅₀	Lethal dose to 50% of exposed laboratory animals
TWA	Time-weighted average
TLV	Threshold limit value
NIOSH	US National Institute of Occupational Safety and Health
NE	Not established
NTP	US National Toxicology Program
OEL	Occupational exposure limit
OSHA	US Occupational Safety Health Administration
PEL	Permissible exposure limit
RQ	Reportable quantity
STEL	Short term exposure limit
U.S. DOT	United States Department of Transportation