

Section 1 Chemical Product and Company Identification

Product Identifier	Tough Film
General Use	Film for use in the printing industry
Company:	Infinity Foils, Inc. – A UEI Group Company
Address:	9090 Nieman Road Overland Park, KS 66214
Phone	+1 800 221 9059 or +1 913 541 0503
Emergency Contact Number	CHEMTEL – Available 24 hours/day, 7 days/week Domestic North America: +1 800 255 3924 International: +1 813 248 0585

Section 2 Hazards Identification

During normal operation and usage, this solid material article does not present inhalation, ingestion, or chemical hazards.

Section 3 Hazardous Ingredients / Identity Information

The following potentially hazardous ingredient(s) are used to formulate this product. As supplied, the ingredient(s) are bound in the polymer matrix. Because they are bound in the matrix, they are not expected to create any unusual hazards when handled and processed according to good manufacturing and industrial hygiene practices and the guidelines provided in this SDS.

Chemical Name	CAS No.	%
Silica, amorphous, diatomaceous earth	68855-54-9	1 – 5

Section 4 First Aid Measures

Inhalation	If breathing has stopped, perform artificial respiration and obtain medical aid immediately. If persistent irritation, severe coughing, or breathing is difficult, provide fresh air and seek medical attention as soon as possible.
Ingestion	If the product is swallowed, seek immediate medical attention or advice. Do not induce vomiting.
Eye Contact	Eye injuries from solid particles should receive immediate medical attention. Seek medical attention.
Skin Contact	Cuts or abrasions should be treated promptly with thorough cleansing of the affected area. Wash the skin using soap or mild detergent and water. Get medical attention if irritation or dermatitis develops and persists.

Section 5 Firefighting Measures

Flammable/Combustible Properties	Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.
Extinguishing Media	Water, carbon dioxide, dry chemical, foam or sand
Protective Equipment	Wear self-contained respiratory protective device. Do not inhale explosion or combustion gases.
Hazardous Decomposition Products	Carbon Dioxide, hydrogen cyanide, 4,4'-Diphenylmethane Diisocyanate (MDI) Aldehydes, Carbon monoxide, Nitriles, Nitrogen oxides (NOx), Hydrocarbons, other potentially toxic fumes

Section 6 Accidental Release Measures

Personal Precautions	Product in solid form may be picked up by hand or other means to be placed into a container.
Environmental Precautions	Should waste disposal be deemed necessary, follow Federal, State, or Local regulations.
Methods for Cleaning Up	No special measures required.

Section 7 Handling and Storage

Handling Precautions	Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Containers should be kept tightly closed to prevent contamination.
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Section 8 Component Exposure Limits

Exposure Limits	Tough Film in its supplied form is generally not hazardous. However, when the product is heated there is potential for the release of MDI vapors. If heated above decomposition temperatures, there is potential for release of MDI in addition to decomposition products (see section 10). The following exposure limits do not apply to the product in its supplied form; however, when the product is heated (i.e, during processing or thermal decomposition conditions), there is a potential for the release of 4,4'-diphenylmethane diisocyanate (MDI) vapors.
Personal Respiratory Protection	Use an approved respirator, with the proper assigned protection factor, whenever airborne concentrations of hazardous components exceed listed exposure limits.
Personal Hand Protection	Use appropriate gloves for periods of longer exposure or to protect against physical hazards.
Eye Protection	Safety glasses with side-shields
Skin Protection	No special skin protection requirements during normal handling and use.

Section 9 Physical and Chemical Properties

Appearance/Odor	Solid plastic film/odorless	Odor Threshold	No data
pH	Not applicable	Boiling Point	No data
Melting Point	302–392° F (150–200° C)	Solubility (H₂O)	Insoluble in water
Specific Gravity	1.0–1.3	Density	No data
Octanol/H₂O Coefficient	No data	Evaporation Rate	Not volatile
Molecular Weight	No data	Decomposition Temperature	No data
Auto Ignition	No data	Lower Flammability Limit	No data
Flash Point	>410° F (210° C)	Upper Flammability Limit	No data
Vapor Density	No data	Vapor Pressure	No data
VOC	No data	Flammability Class	No data
Viscosity	No data		

Section 10 Chemical Stability and Reactivity

Stability	Stable under normal handling conditions
Materials to Avoid	No data available
Hazardous Decomposition/By-Products	By Fire and Thermal Decomposition: Carbon Dioxide; hydrogen cyanide; 4,4'-Diphenylmethane Diisocyanate (MDI); Aldehydes, Carbon monoxide, Nitriles, Nitrogen oxides (NOx), Hydrocarbons, other potentially toxic fumes
Hazardous Polymerization	Will not occur

Section 11 Toxicological Information

Possible effects by routes of exposure	Inhalation, Skin Contact, Eye Contact
Health Effects and Symptoms	Contact with heated material can cause thermal burns., Vapors released from thermal decomposition may cause eye irritation with symptoms of burning and tearing, as well as respiratory tract irritation
Acute Inhalation	The following effects reflect the potential health hazards associated with overexposure to MDI. Diisocyanate vapors or mist at concentrations above the TLV or PEL can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction).
Chronic Inhalation	As a result of previous repeated overexposures or a single large dose, certain individuals may develop sensitization to diisocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure to diisocyanates at levels well below the TLV or PEL.
Skin Contact	No data available
Sensitization	No sensitizing effects known
Toxicity Data for Silica, Amorphous, Diatomaceous Earth	Acute Oral Toxicity LD50: > 2000 mg/kg (rat, male/female) (OECD Test Guideline 401)
Skin Irritation	Human skin, Non-irritating
Eye Irritation	Human, Slightly irritating
Sensitization	Skin sensitization (local lymph node assay [LLNA]): negative (Mouse, OECD Test Guideline 429)
Repeated Dose Toxicity	13 weeks, (feeding study) oral: NOAEL: 3,737.9 mg/kg, (rat, male/female, daily)
Carcinogenicity	No carcinogenic substances as defined by IARC, NTP and/or OSHA

Section 12 Ecological Information

Ecological Data	No data available for this product.
Ecological Data for Silica, Amorphous, Diatomaceous Earth	Biodegradation The methods for determining the biological degradability are not applicable to inorganic substances.

Section 13 Disposal Considerations

Disposal Instructions Dispose in accordance with federal, state, provincial, and local regulations.

Section 14 Transportation Information

The material is not regulated under DOT provisions.

Section 15 Regulatory Information

U.S. TSCA Inventory Status	All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
Canada DSL Inventory Status	All ingredients of this product are listed or are excluded from listing on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.
CERCLA/SARA Section 302	Not listed
SARA (311, 312) Hazard Class	Not listed
CERCLA/SARA Section 313	Not listed
WHMIS Hazard Classification	Not listed

	Right To Know Components	CAS-No
Pennsylvania	Polyurethane polyester elastomer	CAS# is a trade secret
	Silica, amorphous, diatomaceous earth	6885-54-9
	Proprietary, non-hazardous ingredients	-
New Jersey	Polyurethane polyester elastomer	CAS# is a trade secret
	Silica, amorphous, diatomaceous earth	6885-54-9
	Proprietary, non-hazardous ingredients	-
Massachusetts	Polyurethane polyester elastomer	CAS# is a trade secret
	Silica, amorphous, diatomaceous earth	6885-54-9
	Proprietary, non-hazardous ingredients	-
California Prop 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. Based on information provided by our suppliers, this product is considered "DRC Conflict Free" as defined by the SEC Conflict Minerals Final Rule (Release No. 34-67716; File No. S7-40-10; Date: 2012-08-22).	

Section 16 Other Information

Infinity Foils, Inc. provides the information contained herein in good faith. It is believed to be correct. However it is not all-inclusive and should be used only as a guide. Individuals receiving this information must exercise their independent judgement in determining its appropriateness for a particular purpose. Infinity Foils, Inc. shall not be held liable for any damage resulting from handling or from contact with this product. All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources.

Abbreviations **PEL** Permissible Exposure Limit
TLV Threshold Limit Value

End Notes 1. SARA - Signed into law in 1986, the Superfund Amendments and Reauthorization Act (SARA) is an extension of CERCLA, and is intended to encourage and support local and state emergency planning efforts. SARA provides citizens and local governments with information about potential chemical hazards, and calls for facilities that store hazardous materials to provide officials and citizens with data on the type and amount on hand at specific locations. This field states whether a material is listed or not listed in section 372.65 of SARA. EHS - This states if a material is listed or not listed in Appendix B to part 355, the SARA Extremely Hazardous Substances (EHS) section. RQ is the reportable quantity. TPQ is the Threshold Planning Quantity.

Section 16

Other Information, cont.

2. RCRA - The Resource Conservation and Recovery Act enacted in 1976 and subsequently amended, controls solid-waste disposal and encourages recycling. This states whether a material is listed or not listed under this regulation. If listed the Hazardous Waste Number and waste characterization assigned by RCRA is also provided. 3. CERCLA - Enacted in 1980 and amended thereafter, the Comprehensive Environmental Response, Compensation, and Liability Act provides for identification and cleanup of hazardous materials released on land, into the air, waterways, and groundwater. It covers areas affected by newly released materials and older leaking or abandoned dump sites. This states whether a material is listed or not listed in CERCLA Table 302.4. If listed the section(s) that it is listed under and the Reportable Quantity (RQ) are also provided. 4. TSCA - The Toxic Substances Control Act controls the exposure to and use of raw industrial chemicals not subject to other laws. This states whether the chemical is listed or not listed under this regulation.

Revision 20 April 2020
Supersedes 10 November 2015