

Material Safety Data Sheet
 May be used to comply with
 OSHA's Hazard Communication Standard,
 29 CFR 1910.1200. This Standard must be
 consulted for specific requirements.

U.S. Department of Labor
 Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

TRADE NAME: <i>ST Finish Line Polyurea</i>	Product Number: 2010
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N.F.P.A. & H.M.I.S Rating

HAZARD INDEX		HAZARD CLASS	
4 = Severe		Flammability	
3 = Serious		1	
2 = Moderate	Health		Reactivity
1 = Slight	1*		1
0 = Minimal		Special Note	
		*Chronic Health Hazard	

Section I - Product Identification

Manufacturer's Name: Surfacing Technology	Emergency Telephone Number* CHEMTREC DOMESTIC NORTH AMERICA 800-424-9300 CHEMTREC INTERNATIONAL 703-527-3887
Address: 14455 Boston Street Brighton CO 80602	Telephone Number for Information: 888-654-7866
	Date Prepared / Updated 11/2007

*Emergency telephone number: Use only in the event of an emergency involving a spill, leak, fire, explosion, or accident involving chemicals. 24 hours a day. Collect calls are accepted.

Section II - Hazard Ingredients/Identity Information

Hazardous Components	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Isophorone diisocyanate CAS# 4098-71-9	NA	.045 ppm 8hrs/TWA	NA	NA
Urethane Bisoxazolidine *	NA	NA	NA	NA
Xylene	1330-20-7	NA	NA	NA

* Specific identity was withheld as a trade secret by manufacturer.

EMERGENCY OVERVIEW

WARNING! Danger. Colorless to slightly yellow liquid. Slightly pungent.
 High inhalation hazard-allergic sensitizer. Severe skin and eye irritant.
 Irritation to gastrointestinal tract.

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Section III - Physical /Chemical Characteristics

Boiling Point NA	BULK DENSITY 8.73 #/GAL	Specific Gravity (H2O = 1) 1.07	VOC Content 30.29%
Vapor Pressure (mm Hg.) 4.4 @ 100°F	Freezing / Melting Point NA		Viscosity 400-600 cps (20 C/68°F)
Vapor Density (AIR = 1) NA	Evaporation Rate (Butyl Acetate = 1) NA		
Solubility in Water Reacts slowly with water to liberate CO2 gas			
Appearance, Odor and Color Low Viscosity Liquid. Slightly pungent odor. Colorless to slightly yellow.			

Section IV - Fire and Explosion Hazard Data

Flash Point Not Determined	Flammable Limits	LEL 1 vol%	UEL NA
Extinguishing Media Dry Chemical, foam, or CO2. Water spray for large fire.			
Special Fire Fighting Procedures Full emergency equipment with a self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, IPDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion.			
Unusual Fire and Explosion Hazards Vapor heavier than air and may travel considerable distance to a source of ignition and flashback.			

Section V - Reactivity Data

Stability Stable when properly handled and stored.	Conditions to Avoid Heat and open flame.
Incompatibility (Materials to avoid) Contamination with water	
Hazardous Decomposition of Byproducts Can form carbon monoxide or carbon dioxide	
Hazardous Polymerization May occur; Contact with moisture, other materials which react to isocyanates, or temperatures above 400° F (204° C), may cause polymerization.	Conditions to Avoid NA
Decomposition Products By high heat and fire: carbon monoxide, oxides of nitrogen, traces of HCN, MDI vapors or aerosols.	

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Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Ingestion? Yes
Health Hazards (Acute and Chronic)			
Inhalation: Inhalation would be expected to cause irritation of the nose, mouth, throat and lungs. Inhalation may cause asthma like symptoms, including coughing, wheezing, tightness of the chest, shortness of breath and headache.			
Skin Contact: Severe skin irritant, allergic sensitizer. This material may be absorbed through the skin.			
Ingestion: Not a likely route of exposure. Ingestion may cause gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy, or diarrhea.			
Eye Contact: May result in severe irritation and possible damage to the cornea and impairment of vision. The effects of high vapor concentration may vary from slight irritation (with tearing and a burning sensation to keratitis (inflammation of the cornea) and impairment of vision.			
Chronic Health Effects: Prolonged or repeated exposure to vapors may cause lung damage. Repeated overexposure to isocyanate and high one time accidental exposures have been associated with gradual decrease in lung function. Repeated inhalation may also cause allergic sensitization of the respiratory tract, resulting in coughing, wheezing, shortness of breath, chest tightness, and other asthma-like symptoms that may well be life-threatening. Repeated skin contact may cause irritation and allergic dermatitis.			
Carcinogenicity: See below	NTP? No	IARC Monographs? No	OSHA Regulated? No
Toxicity data for: Isophorone Diisocyanate Acute Toxicity Oral LD50: 5490 mg/kg (Rat) Inhalation LC50: 40 mg/m3 (Rat) Target Organ Effects: Damages the lung			
Signs and Symptoms of Exposure Skin on eye irritation			
Warning: This product contains detectable amounts of a chemical known to the State of California cause cancer/birth defects or other reproductive harm.			
Medical Conditions Generally aggravated by exposure: History or presence of allergic disease. Exposure may aggravate one or more of the following: Asthma or asthmatic bronchitic medical history.			
Emergency and First Aid Procedures			
Inhalation: Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed. Obtain medical attention. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Consult physician should this occur.			
Skin Contact: Remove contaminated clothing. Wash affected skin thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. For severe exposures, get under safety shower after removing clothing, then get medical attention. For lesser exposures, seek medical attention if irritation develops or persists after the area is washed.			
Ingestion: DO NOT induce vomiting. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal. Call a physician or Poison Control Center. DO NOT give anything orally to an unconscious person.			
Eye Contact: Flush with copious amount of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. Refer individual to physician or ophthalmologist for immediate follow-up.			
Note To Physician: Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Assess extent and severity of tissue injury by appropriate diagnostic studies and procedures. Bronchodillators may be indicated.			

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Section VII - Precautions for Safe Handling and Use

Storage Temperature (Min/Max):

Below 122° F (50° C)

Shelf Life:

6 months

Special Sensitivity:

If container is exposed to high heat, 160 F (71 C) it can be pressurized and possible rupture. IPDI reacts slowly with water to form CO2 gas. This gas can cause sealed containers to expand and possible rupture.

Steps to Be Taken in Case Material is Released or Spilled

Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment, including respiratory equipment during clean-up.

Major spill: If temporary control of isocyanate vapor is required, a blanket of protien foam (available at most fire departments) may be placed over the spill. Large quantities may be pumped into closed, but not sealed, container for disposal.

Minor spill: Absorb isocyanates with sawdust or other absorbent, shovel into suitable unsealed containers, transport to well ventilated areas. (outside) and treat with neutralizing solution: Mixture of water(80%) with nonionic surfactant Tergitol TMN (20%), or water (90%), concentrated ammonia (3-8%) and detergent (2%). Add about 10 parts of neutralizer per part of isocanate, with mixing. Allow to stand uncovered for 48 hours to let CO2 escape. Clean-up: Decontaminate floor with decontamination solution letting stand for at least 15 minutes.

Waste Disposal Method

Waste must be disposed of in accordance with the federal, state, and local environmental control regulations.

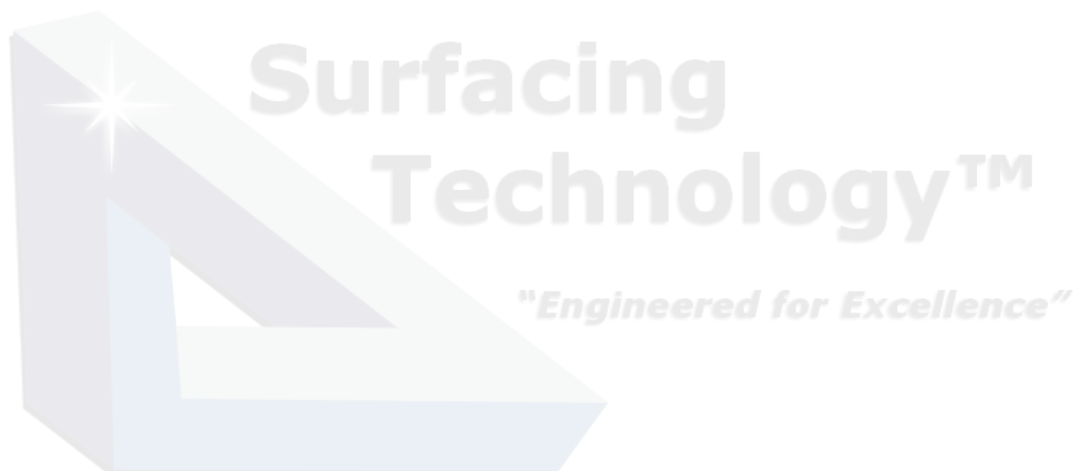
Incinerations is the preferred method.

Precautions to be taken in Handling and Storing

Keep away from all ignition sources (heat, flame, sparks, and strong oxidizers.) Store in safety containers. Use only in well ventilated areas.

Other Precautions

Empty containers must be handled with care due to the products residue. Decontaminate containers prior to disposal. Empty decontaminated containers should be crushed to prevent reuse. DO NOT HEAT OR CUT EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH. (See Fire Fighting Measures & Stability and Reactivity Sections) Gases may be highly toxic.



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Section VIII - Control Measures

Respiratory Protection

Airborne IPDI concentrations greater than the ACGIH TLV-TWA (TLV) or OSHA PEL-C (PEL) can occur in inadequately ventilated environments when IPDI is sprayed, aerosolized, or heated. In such cases, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected, the following conditions must be met: (1) (a) the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, or (1) (b) a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program, and (2) the airborne IPDI concentration must be no greater than 10 times the TLV or PEL. The recommended APR cartridge is an organic vapor/HEPA combination cartridge (OV/P100)

Ventilation

Provide sufficient mechanical ventilation to maintain exposure below TLV(s).

Monitoring

Airborne IPDI concentrations should be measured when the potential for overexposure exists e.g., when the product is sprayed, aerosolized or heated. Monitoring of airborne isocyanates in the breathing zone of individuals should become part of the overall employee exposure characterization program. Sampling and analytical methods have been developed by NIOSH, OSHA, and others.

Medical Surveillance

Medical supervision of all employees who handle or come in contact with isocyanates is recommended. These should include pre-employment and periodic medical examinations with pulmonary function tests (FEV₁, FVC as a minimum). History of adult asthma, respiratory allergies such as hay fever, eczema, history of prior isocyanate sensitization, or lack of smell (anosmia) are all possible reasons for medical exclusion from isocyanate areas. Once a person is accurately diagnosed as sensitized to an isocyanate, no further exposure can be permitted.

Protective Gloves

Use rubberized gloves according to OSHA regulation 29 CFR 1910.138.

Eye Protection

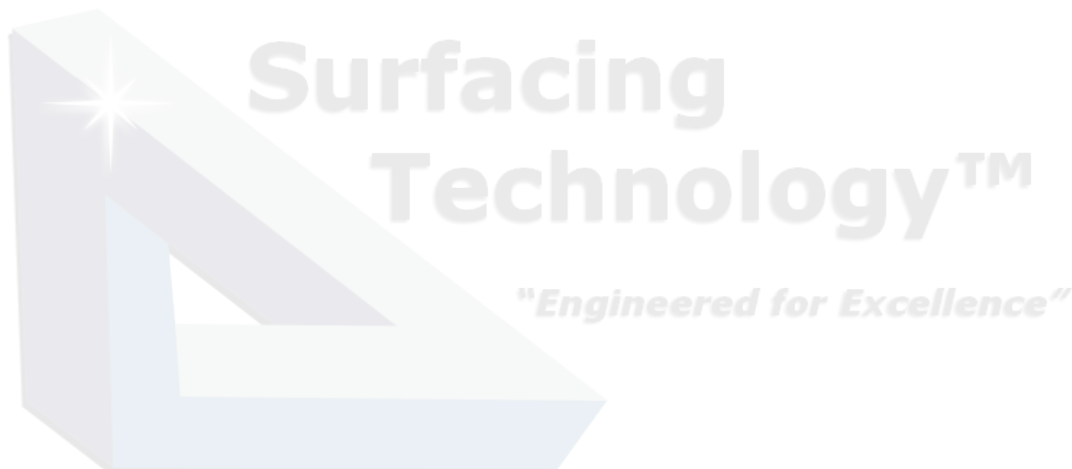
Wear safety goggles or face shield according to OSHA regulation 29 CFR 1910.133.

Other Protective Clothing or Equipment

Safety showers, eye wash stations and washing facilities should be available.

Work/Hygienic Practices

Wash thoroughly with soap and water before eating, smoking or using washroom. Remove and wash contaminated clothing before re-use. Keep body contact and splash to a minimum.



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Section IX - Special Precautions - DOT DATA

DOT Transportation Data (49 CFR 172.101)	
Shipping Name:	Resin Compound
Hazard Class:	Non-Hazardous
ID No:	NA
Packing Group:	NA
Label:	NA
Limited Quantity Exceptions:	NA
US Domestic Ground Shipments:	NA
Maritime Transport:	NA
Air Transport:	NA
Placards:	NA
National Motor Freight NMF-100-0	

Section X - Regulatory Information

OSHA Status:	This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200				
TSCA Status:	On TSCA Inventory				
SARA Title III:	Section 302 Extremely Hazardous Substance: None Section 311/312 Hazard Categories: Immediate Health Hazard. Delayed Health Hazard. Reactive Section 313 Toxic Chemicals: Isophorone Diisocyanate/CAS#4098-71-9 Reporting Threshold 1.0%				
RCRA Status:	Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product derived from the product should be classified as a hazardous waste.				
California Proposition 65:	The chemical(s) noted below are contained in this product and are know in the State of California to cause cancer, birth defects or other reproductive harm.				
	<table border="1"> <thead> <tr> <th>CAS No.</th> <th>Chemical Name</th> </tr> </thead> <tbody> <tr> <td>None Known</td> <td>None Known</td> </tr> </tbody> </table>	CAS No.	Chemical Name	None Known	None Known
CAS No.	Chemical Name				
None Known	None Known				

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT NAME	CAS NUMBER	STATE CODE
Isophorone Diisocyanate (IPDI)	4098-71-9	PA1, PA4, MA
Urethane Bioxazolidine	NJTSRN (31765300002)-11530	PA3, NJ4
Unknown Polymeric Cpds	Unknown	PA3, NJ4
2,2,3 Trimethylpentane	540-84-1	PA1, MA, NJ1, NJ3

Comments: This Material Safety Sheet and the information it contains are offered to you in good faith. We have reviewed any information contained in this datasheet, which we received from sources outside our company. We believe the information to be correct, but can not guarantee its accuracy or completeness. Health and safety precautions in this datasheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this datasheet shall be construed as a permission or recommendation for the use of this product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

ACGIH – American Conference of Governmental Hygienists	NTP – National Toxicology Program
CAS (#) Chemical Abstracts Service	OSHA – Occupational Safety and Health Administration
CERCLA – Comprehensive Environmental Response, Compensation and Liability Act	PEL – Permissible Exposure Limit
DOT – Department of Transportation	RCRA – Resource Conservation and Recovery Act
EPA – Environmental Protection Agency	STEL – Short Term Exposure Limit
HMIS – Hazardous Materials Information Systems	TLV – Threshold Value Limit
IARC – International Agency for Research on Cancer	TSCA – Toxic Substances Control Act
MPPCF – Million Parts Per Cubic Foot	TWA – Time Weighted Average
NFPA – National Fire Protection Agency	VOC – Volatile Organic Compounds
NIOSH – National Institute for Occupational Safety and Health	WHMIS – Workplace Hazardous Materials Information System

