SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: K-5™ Abrasion Resistant Spray Applied Elastomer
Component: "A"

Company: **Specialty Products, Inc. (SPI)**
2410 – 104th St Ct S, Ste D
Lakewood, WA 98499
Phone: 253.588.7101
Toll Free: 800.627.0773
Fax: 253.588.7196

EMERGENCY CONTACT: For Spills, Leaks, Fire or Exposure call **CHEMTREC**
Toll Free: 800.424.9300
International Calls: 703.527.3887
Fax: 913.321.1490

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS#	% W	ACGIH TLV
Dphenylmethane Diisocyanate	26447-40-5	40 – 70	Not Listed
Contains:			
Reaction product of polyol with			
4, 4' – Diphenylmethane Polyether Prepolymer	101-68-8		0.005 ppm
Polyether Prepolymer	584-84-9		
Diisocyanate (4,4' – MDI)			
MDI isomers/oligomers	Not Listed		Not Listed
Modified MDI	Not Listed	20 – 50	Not Listed
Propylene Carbonate	Not Listed	10 – 20	Not Listed

SECTION 3: HAZARDS IDENTIFICATION

OSHA/HCS Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency Overview: Danger!
IRRITATING TO EYES AND SKIN.
HARMFUL IF SWALLOWED.
CAUSES RESPIRATORY TRACT IRRITATION.

Section 3 Notes: **Read the entire MSDS for a more thorough evaluation of the hazards.**

SECTION 4: FIRST AID MEASURES

Eye Contact:	Get medical attention immediately. Immediately flush eyes with plenty of water for a minimum of 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Chemical burns must be treated promptly by a physician. Continue flushing for an additional 15 minutes if medical attention is not immediately available.
Skin Contact:	Remove contaminated clothing. Wash affected areas throroughly with soap and water. If irritation, redness, or a burning sensation develops and persists, obtain medical advice. Contaminated clothing should be thoroughly cleaned before reuse.
Ingestion:	DO NOT induce vomiting. Provided the patient is conscious, wash out mouth with water then give 1 or 2 glasses of water to drink. Refer person to medical personnel for immediate attention.
Inhalation:	Remove patient from exposure, keep warm and at rest. Obtain medical attention. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, qualified personnel should administer oxygen. Apply artificial respiration if breathing has ceased or shows signs of failing.
Notes to Physician:	Symptomatic treatment and supportive therapy as needed. Administer oxygen if necessary. Following severe exposure the patient should be kept under medical review for at least 48 hours as delayed pulmonary oedema may develop.
Supplemental Health Information	In case of accident or if you feel unwell, seek medical attention immediately.

SECTION 5: FIRE-FIGHTING MEASURES

Flash Point:	Above 230° F (110° C)
Flammable Limits/% Volume in Air	Lower: N/A Upper: N/A
Extinguishing Media:	Water. Carbpn dioxide, dry chemical or appropriate foam. If water is used, very large quantities are requied. Reaction between water and hot isocyanate may be vigorous. Contain runoff water with temporary barriers.
Not Suitable:	None known.
Special Exposure Hazards:	No Specific Hazard.
Special Protective Equipment for Firefighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode and full protective clothing (Bunker Gear).
Unusual Fire and Explosion Hazards:	Containers may burst under intense heat. Due to reaction with water, a hazardous build-up of pressure could result if contaminated containers are resealed.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures:	For major spills call **CHEMTREC** Toll Free 1.800.434.9300 or for International call 1.703.527.3887.
Personal Precautions:	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective

equipment.

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for Cleaning Up: If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contained material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

General: Ideal storage temperature is 60-90°F (16-32°C). Handling and storage should be in accordance with Local, State/Provincial or Federal regulations.

Handling: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult local authorities for acceptable exposure limits.

Preventive Measures: Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

Engineering Controls: Use local exhaust ventilation to maintain airborne concentrations below the TVL. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as the ACGIH current edition of 'Industrial Ventilation, a manual of Recommended Practice.'

Personal Protection

Eye Protection: Chemical safety goggles. If there is a potential for splashing, use a full-face shield.

Skin Protection: The following protective materials are recommended: GLOVES – neoprene, nitrile-butadiene rubber, butyl rubber. Thin disposable gloves should be avoided for repeated or long term use.

Respiratory Protection: When the product is sprayed or heated without adequate ventilation, an approved MSHA/NIOSH positive-pressure, supplied-air respirator may be required. Air purifying respirators equipped with

	organic vapor cartridges and a HEPA (P100) particulate filter may be used under certain conditions when a cartridge change-out schedule has been developed in accordance with the OSHA respiratory protection standard (29 CFR 1910.134).
Protective Clothing:	Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

General Appearance Information

Physical State:	Liquid
Color:	Clear Yellow
Odor:	Odorless

Important Health, Safety and Environmental Information

Boiling Point:	N/A
Specific Gravity:	1.1439 APPROX at 25°C
Melting Point:	Not available
Flash Point:	Above 230° F (110° C)
Solubility (in water):	Reacts with water
Vapor Density:	8.5 approx (air = 1).
Vapor Pressure (mm Hg)	Approx. 4 x 10
Evaporation Rate (n-Butyl Acetate = 1):	Not applicable
Volatile Organic Compounds (VOC):	0 grams/liter

SECTION 10: STABILITY AND REACTIVITY

Stability and Reactivity:	Stable at room temperature
Incompatibility *(Materials to Avoid):*	Will react with any material containting active hydrogens.
Hazardous Polymerization:	Polymerization may occur at elevated temperatures in the presence of alkalies, tertiary amines and metal compounds.
Conditions to avoid:	Avoid high temperatures. Avoid freezing. 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, but is accelerated at temperatures higher than 122°F
Hazardous Decomposition Products:	Highly unlikely under normal industrial use.
Teratogenicity and Fetotoxicity:	No birth defects were seen in two independent animal (rat) studies. Fetotoxicity was observed at doses that were extremely toxic (including lethal) to the mother. Fetotoxicity was not observed at doses that were not maternally toxic. The doses used in these studied were maximal, respirable concentrations well in excess of the defined occupational limits.

SECTION 11: TOXICOLOGICAL INFORMATION

Preparation of Decontamination Solution:	Prepare a decontamination solution of 0.2 – 0.5% liquid detergent and 3 – 8% concentrated ammonium hydroxide in water (5 – 10% sodium carbonate may be substituted for the ammonium hydroxide). Follow the precautions on the supplier's material safety data sheets when preparing and using solution.

Use of Decontamination Solution:	Allow deactivated material to stand for at least 30 minutes before shoveling into drums. Do not tighten the bungs. Mixing with wet earth is also effective, but slower.

Potential Chronic Health Effects

Target Organs:	None known.
Carcinogenicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Developmental Effects:	No known significant effects or critical hazards
Fertility Effects:	No known significant effects or critical hazards.

SECTION 12: ECOLOGICAL INFORMATION

Avoid uncontrolled releases of this material. Keep out of sewers, storm drains, surface waters and soil. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

Spills or Leak Procedures:	Clean up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including respiratory protection. Evacuate the area. Prevent further leakage, spillage or entry to drains. Contain and absorb large spillages onto an inert, nonflammable absorbent carrier (such as earth or sand). Shovel inot open-top drums or plastic bags for further decontamination, if necessary. Wash the spillage area clean with liquid decontaminant. Test atmosphere for MDI vapor. Neutralize small spillages with decontaminant. Remove and dispose of residues. Notify applicable government authorities if release is reportable. The CERCLA RQ for MDI is 5,000 lbs. For major spills call Chemtrec (800-424-9300).

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method:	The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

SECTION 14: TRANSPORTATION INFORMATION

EMERGENCY CONTACT:	For Spills, Leaks, Fire or Exposure call **CHEMTREC**
Toll Free:	800.424.9300
International Calls:	703.527.3887
DOT Classification	Not regulated in single containers less than 5,000 lbs. Single containers with more than 5,000 lbs are regulated as Other Reqgulated Substances, Liquid, N.O.S. (Methylene Diphenyl Diisocyanate) 9, UN3082, PGIII, RQ.
TDG Classification	Not Regulated
IMO Class	Not Regulated

IATA/ICAO Class: Not Regulated

SECTION 15: REGULATORY INFORMATION

United States

OSHA:

- This product is classified as a hazardous material under the criteria outlined in the OSHA Hazardous Communication Standard (HCS) (29 CFR 1910.1200)
- Physical: Not Regulated
- Health: Highly toxic. Respiratory Sensitizer, Skin Sensitizer, Irritant
- Target Organ: Respiratory tract. Skin.

TSCA (Toxic Substances Control Act: All ingredients are on the TSC Chemical Substances Inventory.

EPCRA Section 313 (40 CFR 372): This product contains the following chemical(s) subject to reporting requirements: approx 42% 4, 4' – MDI

CERCLA Comprehensive Environmental Response Comprehansion and Liability Act: 4, 4' – Methylene Diphenyl Diisocyanate (CAS 101-68-8) has a 5,000 lb. RQ.

This product does not contain nor is it manufactured with ozone depleting substances.

Canada

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and this MSDS contains all the information required by the CPR.

WHMIS: Class D-1A: Very toxic (acute effects).
Class D-2A: Very toxic
Class D-2B: Toxic

CEPA: This product contains substance(s) not on the Canadian Domestic Substances List (CEPA DSL). Environmental notification may be required.

Canada Inventory: All components are listed or exempted.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

SECTION 16: OTHER INFORMATION

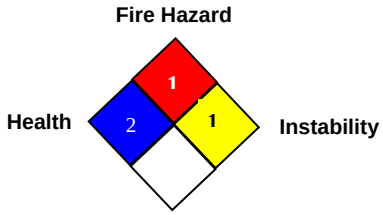
Label Requirements:

DANGER!
IRRITATING TO EYES AND SKIN.
HARMFUL IF SWALLOWED.
CAUSES RESPIRATORY TRACT IRRITATION.

HAZARDOUS MATERIAL INFORMATION SYSTEM (U.S.A.)

NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A.)

Health	**2**
Fire Hazard	**1**
Reactivity	**1**



For Your Protection:

The information and recommendations in this publication is to the best of our knowledge, reliable. The toxicity and risk characteristics of products made by SPI will necessarily differ from the toxicity and risk characteristics that occur when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors. The user is responsible to comply with all applicable federal, provincial or municipal laws and regulations. SPI MAKES NO WARRANTIES OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Preparation Information:

This MSDS supersedes ALL previous MSDS versions.