MATERIAL SAFETY DATA SHEET



One Stroke Inks 458 Roberts Ave Louisville, KY 40214 502-366-1070 **ŪSA**

After hours Emergency contact CHEMTREC 800-424-9300

1. Product and Company Identification

Product Name:

Nylon Catalyst

Chemical Family:

Alkyl sulphonic acid ester of phenol and polyisocyanate

2. Hazards Identification

Emergency Overview

DANGER! Color: Yellow Form: Liquid Odor: pungent, strong. Toxic gases/fumes may given off during burning or thermal decomposition. Closed container may forcibly rupture under extreme heat or when contents have been contaminated with water. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Causes respiratory tract irritation. May cause allergic respiratory reaction. Harmful if inhaled. Respiratory sensitizer. Causes skin irritation. May cause allergic skin reaction. Skin sensitizer. Causes eye irritation. May cause lung damage.

Potential Health Effects

Primary Routes of Entry:

Inhalation, Skin Contact, Eye Contact

Medical Conditions Aggravated by **Exposure:**

Asthma, Respiratory disorders, Skin Allergies, Eczema

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Product: BONDING AGENT TP LXS 51066

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). Persons with a

preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g., fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

For Component: Toluene Diisocyanate Mixed Isomers

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Expected to be highly toxic by inhalation. May cause allergic respiratory reaction with symptoms of coughing, wheezing, shortness of breath, bronchospasm, and reduced lung function.

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. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Sensitization can be permanent. Chronic overexposure to diisocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function) that may be permanent.

Skin

Acute Skin

Causes irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove.

May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Causes irritation with symptoms of reddening, itching, and swelling. Essentially non-toxic by skin absorption.

Chronic Skin

Prolonged contact can cause reddening, swelling, rash, and, in some cases, skin sensitization.

Eye

Acute Eye

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor may cause irritation with symptoms of burning and tearing. Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause corneal injury.

Chronic Eye

Prolonged vapor contact may cause conjuntivitis.

Ingestion

Acute Ingestion

May cause irritation; Symptoms may include abdominal pain, nausea, vomiting, and diarrhea. Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

Carcinogenicity:

NTP and IARC evaluated TDI as a mixture of the 2,4 and 2,6 isomers.

Toluene Diisocyanate Mixed	NTP - Hazard Designation: Anticipated carcinogen.
Isomers	IARC - Overall evaluation: 2B Possible carcinogen.
	IARC - Evidence of carcinogenicity in humans: Inadequate data.
	IARC - Evidence of carcinogenicity in animals: Sufficient data.

3. Composition/Information on Ingredients

Hazardous Components

The 2,4-TDI (CAS# 584-84-9) and the 2,6-TDI (CAS# 91-08-7) isomer mixture is known as Toluene Diisocyanate (CAS# 26471-62-5). For Regulatory and State Right to Know information on this product CAS# 26471-62-5 and its isomers 2,4-TDI and 2,6-TDI please refer to regulatory information section of this MSDS.

<u>Weight %</u>	<u>Components</u>	CAS-No.
0.1 - 1%	Toluene Diisocyanate Mixed Isomers	26471-62-5

4. First Aid Measures

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Use lukewarm water if possible. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Then remove contact lenses, if easily removable, and continue eye irrigation for not less than 15 minutes. Get medical attention.

Skin Contact

Immediately remove contaminated clothing and shoes. Wash off with soap and water. Use lukewarm water if possible. Wash contaminated clothing before reuse. For severe exposures, immediately get under safety shower and begin rinsing. Get medical attention if irritation develops.

Inhalation

Move to an area free from further exposure. Get medical attention immediately. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening.

Ingestion

Do not induce vomiting. Wash mouth out with water. Do not give anything by mouth to an unconscious person. Get medical attention.

Notes to physician

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound. Inhalation: Treatment is essentially symptomatic. An individual having

a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

dry chemical, carbon dioxide (CO2), foam, water spray for large fires.

Special Fire Fighting Procedures

Firefighters should wear NFPA compliant structural firefighting protective equipment, including selfcontained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous.

Unusual Fire/Explosion Hazards

Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO2 formed). Use cold-water spray to cool fire-exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and hot diisocyanate can be vigorous.

6. Accidental release measures

Spill and Leak Procedures

Evacuate non-emergency personnel. Isolate the area and prevent access. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate. Contain the spill to prevent spread into drains, sewers, water supplies, or soil. Major Spill or Leak (Standing liquid): To minimize vapor, cover the spillage with fire fighting foam (AFFF). Released material may be pumped into closed, but not sealed, metal container for disposal. Process can generate heat. Minor Spill or Leak (Wet surface): Cover spill area with suitable absorbent material (Kitty Litter, Oil-Dri®, etc). Saturate absorbent material with neutralization solution and mix. Wait 15 minutes. Collect material in open-head metal containers. Repeat applications of decontamination solution, with scrubbing, followed by absorbent until the surface is decontaminated. Check for residual surface contamination. Swype® test kits have been used for this purpose. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide (CO2) escape.

Additional Spill Procedures/Neutralization

Neutralization solutions:

(1) Colorimetric Laboratories Inc. (CLI) decontamination solution.

(2) A mixture of 75% water, 20% non-ionic surfactant (e.g. Poly-Tergent SL-62, Tergitol TMN-10) and 5% n-propanol.

(3) A mixture of 80% water, 20% non-ionic surfactant (e.g. Poly-Tergent SL-62, Tergitol TMN-10).
(4) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

7. Handling and Storage

Storage Temperature:	
minimum:	21 °C (69.8 °F)
maximum:	43 °C (109.4 °F)

Storage Period 6 Months

Handling/Storage Precautions

Do not breathe vapors, mists, or dusts. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if there is a potential for exposure or if material is heated, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or mist. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected.

8. Exposure Controls / Personal Protection

The sum of the 2,4 and 2,6 isomer concentration should not exceed the guideline limits.

Toluene Diisocyanate Mixed Isomers (26471-62-5)

- US. ACGIH Threshold Limit Values
 - Time Weighted Average (TWA): 0.005 ppm
- US. ACGIH Threshold Limit Values
- Short Term Exposure Limit (STEL): 0.02 ppm
- US. ACGIH Threshold Limit Values
 - Hazard Designation: Sensitiser.
- US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Industrial Hygiene/Ventilation Measures

Local exhaust should be used to maintain levels below the TLV and PEL whenever diisocyanate is handled, processed, or spray-applied. At normal room temperatures (70 F) TDI levels quickly exceed the TLV or PEL unless properly ventilated. Standard reference sources regarding industrial ventilation (e.g., ACGIH Industrial Ventilation Manual) should be consulted for guidance about adequate ventilation. To ensure that published exposure limits have not been exceeded, monitoring for airborne diisocyanate should become part of the overall employee exposure characterization program. thods can be made available, upon request.

Respiratory Protection

At normal room temperatures, airborne TDI can exceed the ACGIH TLV-TWA; therefore, in inadequately ventilated environments, 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 then (a)

the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, or(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. Further, if an APR is selected, the airborne diisocyanate concentration must be no greater than 10 times the TLV or PEL. An organic vapor (OV) cartridge is recommended for APR use.

Hand Protection

Gloves should be worn. Nitrile rubber showed excellent resistance. Butyl rubber, neoprene, and PVC are also effective.

Eye Protection

When directly handling liquid product, eye protection is required. Examples of eye protection include a chemical safety goggle, or chemical safety goggle in combination with a full face shield when there is a greater risk of splash.

Skin and body protection

Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact.

Medical Surveillance

All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Applicants who have a history of adult asthma should be restricted from work with isocyanates. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, no further exposure can be permitted.

Additional Protective Measures

Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product. Follow all label instructions.

9. Physical and chemical properties

Form:	Liquid
Color:	Yellow
Odor:	pungent, strong
Boiling Point/Range:	251.67 - 253.89 °C (485 - 489 °F)
Flash Point:	225 °C (437 °F) (closed cup)
Lower Explosion Limit:	0.9 %(V)
Upper Explosion Limit:	9.5 %(V)
Vapor Pressure:	6 hPa @ 20 °C (68 °F)
	12 hPa @ 50 °C (122 °F)
	13 hPa @ 55 °C (131 °F)
Density:	1.13 g/cm3
Solubility in Water:	Insoluble
Autoignition Temperature:	430 °C (806 °F)
Decomposition Temperature:	176.67 °C (350 °F)
Viscosity, Dynamic:	8,000 - 13,000 mPa.s

10. Stability and Reactivity

Hazardous Reactions

Contact with moisture, other materials that react with isocyanates, or temperatures above 350 F (177 C), may cause polymerization.

Materials to avoid

Water, Amines, Strong bases, Alcohols, copper alloys, Aluminum

Hazardous decomposition products

By Fire and High Heat: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke, Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds

11. Toxicological Information

Toxicity Note

Toxicity data is for TDI mixed isomers

Acute Oral Toxicity

LD50: 4,130 mg/kg (rat, female) LD50: 5,110 mg/kg (rat, male)

Acute Inhalation Toxicity

LC50: 0.48 mg/l, 1 hrs (Rat, Male/Female) LC50: 3.5 mg/l, 4 h (rat)

Acute dermal toxicity LD50: > 9,400 mg/kg (rabbit)

Skin Irritation

rabbit, Draize Test, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize Test, Exposure Time: 24 hrs, Severely irritating

Sensitization

dermal: sensitizer (guinea pig, Maximisation Test (GPMT)) inhalation: sensitizer (Guinea pig)

Repeated Dose Toxicity

90 Days, Inhalation: NOAEL: 30 mg/kg, (rat, Male/Female, daily) 30 Days, Inhalation: NOAEL: 1.5 mg/kg, (guinea pig,) 120 Days, Inhalation: NOAEL: < 1.5 ppm, (dog, male, daily)

Mutagenicity

Genetic Toxicity in Vitro: Ames: positive (Salmonella typhimurium, Metabolic Activation: with) Sister Chromatid Exchange: positive (human lymphocytes) Sister Chromatid Exchange: negative (Chinese hamster ovary (CHO) cells) Genetic Toxicity in Vivo: Micronucleus Assay: negative (rat,) Unscheduled DNA synthesis: negative (rat,)

Carcinogenicity

Rat, Male/Female, oral, 106 Weeks, daily positive

Toxicity to Reproduction/Fertility

Two generation study, inhalation, daily, (rat, Male/Female) NOAEL (parental): < 0.02 ppm (0.1 mg/m3), NOAEL (F1): 0.02 ppm (0.1 mg/m3), NOAEL (F2): 0.3 ppm (2 mg/,3) No effects on Reproductive parameters observed at doses tested.

Developmental Toxicity/Teratogenicity

rat, female, inhalation, Days 6 - 15, daily, NOAEL (teratogenicity): 0.5 ppm (3.6 mg/m3), NOAEL (maternal): 0.1 ppm (0.7mg/m3) Fetotoxicity seen only with maternal toxicity. No Teratogenic effects observed at doses tested.

Acute Oral Toxicity LD50: > 5,000 mg/kg (Rat)

Acute dermal toxicity LD50: > 1,000 mg/kg (Rat)

Skin Irritation rabbit, No skin irritation Human, Exposure Time: 24 hrs, No skin irritation

Eye Irritation rabbit, No eye irritation

Sensitization dermal: non-sensitizer (guinea pig)

Acute Oral Toxicity LD50: 4,130 -5,110 mg/kg (Rat, Male/Female)

Acute Inhalation Toxicity

LC50: 66 ppm (480 mg/m3), 1 hrs (Rat, Male/Female) LC50: 49 - 50.4 ppm (350-360 mg/m3), aerosol, 4 h (Rat, Male/Female) RD50: 2.12 ppm, vapor, 3 h (Rat, male)

Acute dermal toxicity LD50: > 9,400 mg/kg (rabbit, Male/Female)

Skin Irritation rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation rabbit, Draize, Severely irritating

Sensitization

dermal: sensitizer (Guinea pig, Maximization Test) inhalation: sensitizer (Guinea pig, Other method)

Repeated Dose Toxicity

21 Days, inhalation: LOAEL: 0.24 ppm (1.71 mg/m3), (Rat, Male/Female, 6 hrs/day 5 days/week)
78 d, inhalation: LOAEL: 0.1 ppm, (rat, Male/Female, 6 hrs/day 5 days/week)
90 d, Oral: NOAEL: 30 mg/kg, LOAEL: 60 mg/kg, (rat, Male/Female, 5 days/week)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: positive, negative (Salmonella typhimurium, Metabolic Activation: with/without) Positive and negative results were seen in various in vitro studies. Questionable validity of studies due to rapid hydrolysis in solvents. Genetic Toxicity in Vivo: Micronucleus Assay: negative (rat,) Unscheduled DNA synthesis: negative (rat,)

Carcinogenicity

rat, Male/Female, inhalation, 113 W, 6 hrs/day 5 days/week negative Rat, Male/Female, oral, 106 Weeks, daily Positive, study validity questioned due to dose exceeding maximum tolerated dose, irregularities in compound storage and analysis.

Toxicity to Reproduction/Fertility

Two generation study, inhalation, 6 hrs/day 7 days/week, (rat, Male/Female) NOAEL (parental): 0.08 ppm, NOAEL (F1): 0.02 ppm, NOAEL (F2): 0.3 ppm No effects on Reproductive parameters observed at doses tested.

Developmental Toxicity/Teratogenicity

rat, female, inhalation, gestation days 6 - 15, 6 hrs/day 7 days/week, NOAEL (teratogenicity): 0.1ppm, NOAEL (maternal): 0.1 ppm No Teratogenic effects observed at doses tested. Fetotoxicity seen only with maternal toxicity.

12. Ecological Information

Biodegradation

0 %, Exposure time: 28 Days

Bioaccumulation

Not expected to bio-accumulate.

Acute and Prolonged Toxicity to Fish

LC50: 164 mg/l (Fathead minnow (Pimephales promelas), 96 hrs) LC50: > 100 mg/l (Zebra fish (Brachydanio rerio), 96 hrs)

Acute Toxicity to Aquatic Invertebrates

EC50: 12.5 mg/l (Water flea (Daphnia magna), 48 hrs) EC50: > 508 mg/l (Water flea (Daphnia magna), 96 hrs)

Toxicity to Microorganisms

EC50: > 100 mg/l, (Activated sludge microorganisms, 3 hrs)

Additional Ecotoxicological Remarks

Ecotoxicity data is for TDI mixed isomers

Ecological Data for Alkylsulfonate, Phenyl Ester

Biodegradation 31 %, Exposure time: 28 Days

Acute and Prolonged Toxicity to Fish

LC0: 100 mg/l (Zebra fish (Brachydanio rerio), 96 hrs)

Acute Toxicity to Aquatic Invertebrates

EC50: 1,000 mg/l (Water flea (Daphnia magna), 48 hrs)

Toxicity to Aquatic Plants

EC50: > 10,000 mg/l, (Green algae (Scenedesmus subspicatus), 72 hrs) No effects seen at saturation concentration.

Toxicity to Microorganisms

Respiration inhibition, EC50: > 10,000 mg/l, (Activated sludge microorganisms)

Ecological Data for Toluene Diisocyanate Mixed Isomers

Biodegradation 0 %, Exposure time: 28 Days, Not readily biodegradable.

Bioaccumulation Carp, Exposure time: 56 d, < 1 BCF Not expected to bio-accumulate.

Acute and Prolonged Toxicity to Fish

LC50: > 100 mg/l (Zebra fish (Brachydanio rerio), 96 hrs) LC50: 133 mg/l (Rainbow (Donaldson)Trout (Oncorhynchus mykiss), 96 hrs)

Acute Toxicity to Aquatic Invertebrates

EC50: 12.5 mg/l (Water flea (Daphnia magna), 48 hrs) EC50: > 500 mg/l (Grass shrimp, 24 hrs)

Toxicity to Aquatic Plants

EC50: 3,230 - 4,300 mg/l, End Point: growth (other: algae, 96 h)

Toxicity to Microorganisms

EC50: > 100 mg/l, (Activated sludge microorganisms, 3 hrs)

13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state, provincial, and/or local environmental control laws. Incineration is the preferred method.

Empty Container Precautions

Empty containers retain product residue; observe all precautions for product. Do not heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal.

14. Transport information

Land transport (DOT) Proper Shipping Name: Hazard Class or Division: UN/NA Number: Packaging Group: Hazard Label(s):

Environmentally hazardous substances, liquid, n.o.s. 9 UN3082 III

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Class 9

<u>RSPA/DOT Regulated Components</u>:

Toluene Diisocyanate Mixed Isomers

Reportable Quantity:	12,500 lb
<u>Sea transport (IMDG)</u>	
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
	N.O.S.
Hazard Class or Division:	9
UN-No:	UN3082
Packaging Group:	III
Hazard Label(s):	Miscellaneous
<u>Air transport (ICAO/IATA)</u>	
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class or Division:	9
UN-No:	UN3082
Packaging Group:	III
Hazard Label(s):	Miscellaneous
15. Regulatory Information	

United States Federal Regulations

OSHA Hazcom Standard Rating: Hazardous

US. Toxic Substances Control Act: Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302): <u>Components</u> Toluene Diisocyanate Mixed Reportable quantity: 100 lbs

Isomers

SARA Section 311/312 Hazard Categories: Acute Health Hazard, Chronic Health Hazard, Reactivity Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A): <u>Components</u> None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required: <u>Components</u> Toluene Diisocyanate Mixed Isomers

State Right-To-Know Information

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.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

<u>Weight %</u> >=1% >=1%	<u>Components</u> Alkylsulfonate, Phenyl Ester Benzene, 1,3-diisocyanato-2-methyl-, polymer with 2,4-diisocyanato-1- methylbenzene	<u>CAS-No.</u> 70775-94-9 31370-61-3
•	ental Hazardous Substances List and/or	New Jersey RTK Special Hazardous
Substances Lists:	~	
<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
0.1 - 1%	Toluene Diisocyanate Mixed Isomers	26471-62-5
U 1	ct contains chemical(s) known to the Sta	8
<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
0.1 - 1%	Toluene Diisocyanate Mixed Isomers	26471-62-5

16. Other Information

NFPA 704M Rating

Health	
Flammability	
Reactivity	
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	3*
Flammability	1
Physical Hazard	1

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

* = Chronic Health Hazard

The handling of products containing reactive TDI polyisocyanate/prepolymer and/or monomeric TDI requires appropriate protective measures referred to in this MSDS. These products are therefore recommended only for use in industrial or trade (commercial) applications. They are not suitable for use in Do-It-Yourself applications.

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of One Stroke Inks. The information in this MSDS relates only to the specific material designated herein. One Stroke Inks assumes no legal responsibility for use of or reliance upon the information in this SDS.

 Name: BONDING AG			Article Number: 5	