

MATERIAL SAFETY DATA SHEETDoc. No. 73830
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SPI-129*****SECTION 1- COMPANY AND PRODUCT IDENTIFICATION *****PREPARED BY:
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PHOENIX, AZ 85044EMERGENCY TELEPHONE:
(800) 424-9300 (CHEMTREC)
(602) 893-8898 (INFORMATION)MANUFACTURER: SHIN-ETSU CHEMICAL CO., LTD.
6-1, 2-CHOME, OHTEMACHI, CHIYODAKU, TOKYO, JAPAN
TELEPHONE FOR INFORMATION: 03-3246-5141 (JAPAN)
CONTACT: S. OKAZAKIPREPARED 06/24/97
REVIEWED 11/02/98PRODUCT NAME: SPI-129
CHEMICAL NAME: POLYIMIDE SILICONE SOLUTION**SECTION 2 COMPOSITION**

CHEMICAL FAMILY: POLYIMIDE SILOXANE COPOLYMER

FORMULA: MIXTURE

PRODUCT COMPOSITION

	APPROX. %	ACGIH TLV	OSHA PEL	UNITS	CASREG. NO.
XYLENE	<20	100	100	PPM	1330-20-7
2-METHOXY ETHYL ETHER	<60	NF	NF	NA	111-96-6

FORMULATION INFORMATION: THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) LISTED BELOW WHICH IS (ARE) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372: XYLENE, 2-METHOXY ETHYL ETHER.

SECTION 3 HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: FLAMMABLE LIQUID

POTENTIAL HEALTH EFFECTS:

INGESTION: MAY CAUSE HEADACHE, CYANOSIS, CENTRAL NERVOUS SYSTEM DEPRESSION, NAUSEA, AND VOMITING

INHALATION: MAY CAUSE DROWINESS, HEADACHE, CYANOSIS, CENTRAL NERVOUS SYSTEM DEPRESSION, NAUSEA AND VOMITING

SKIN CONTACT: MAY CAUSE IRRITATION

EYE CONTACT: MAY CAUSE INITIAL IRRITATION FOLLOWED BY CONJUNCTIVAL CONGESTION

LONG TERM EFFECTS OF OVEREXPOSURE: 2-METHOXY ETHYL ETHER: TERATOGENIC EFFECTS HAVE BEEN OBSERVED IN LABORATORY ANIMALS AT LEVELS ABOVE 100PPM INHALATION AND 125MG/KG INGESTION. THIS CHEMICAL IS A MEMBER OF THE GROUP OF COMPOUNDS KNOWN AS "GLYCOL DIETHERS" WHICH, IN STUDIES CONDUCTED ON LABORATORY ANIMALS, HAVE BEEN SHOWN TO CAUSE REVERSIBLE TESTICULAR AND SPERM DAMAGE. THERE MAY BE A PARTICULAR RISK FOR WOMEN OF CHILD BEARING AGE WITH REGARD TO THIS COMPOUND.

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SECTION 4 FIRST AID MEASURES

INHALATION: REMOVE TO FRESH AIR, KEEP WARM AND AT REST, IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION.

SKIN CONTACT: IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND LAUNDER BEFORE REUSE.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION.

INGESTION: IF SWALLOWED DO NOT INDUCE VOMITING; GIVE LARGE QUANTITIES OF WATER TO DRINK. NEVER GIVE ANYTHING TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION.

MEDICAL ADVICE: TREAT SYMPTOMS AS INDICATED. IF INGESTED, ABSORBENTS SUCH AS ACTIVATED CARBON MAY BE USED. GASTRIC LAVAGE MAY BE EFFECTIVE IF USED WITHIN 4 HOURS OF INGESTION.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT : 29 C (85 F)

FLAMMABLE LIMITS IN AIR (%): LOWER: 1.0, UPPER: 7.0

EXTINGUISHING MEDIA : ALL STANDARD FIREFIGHTING MEDIA

SPECIAL FIREFIGHTING PROCEDURES: WEAR RESPIRATORY PROTECTION IF IN A CONFINED AREA

SECTION 6 ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: PICK UP LARGE SPILLS INTO APPROPRIATE CONTAINERS. ABSORB REMAINDER ON INERT MATERIAL AND INCINERATE IN EPA APPROVED MANNER AS DEFINED BELOW. DO NOT FLUSH TO SANITARY SEWER SYSTEM OR ALLOW TO MIGRATE INTO THE GROUND WATER.

WASTE DISPOSAL: INCINERATE IN EPA APPROVED MANNER ACCORDING TO FEDERAL, STATE AND LOCAL REGULATIONS. THIS CHEMICAL BIODEGRADES SLOWLY IN THE ENVIRONMENT. CHEMICAL SPECIFIC ACCLIMATION OF ACTIVATED SLUDGE SYSTEMS HAS BEEN SHOWN TO PROVIDE LIMITED TREATMENT CAPABILITY IN WASTE WATER SYSTEMS.

SECTION 7 HANDLING AND STORAGE

AVOID BREATHING VAPORS
AVOID CONTACT WITH SKIN AND CLOTHES
USE ONLY IN A WELL VENTILATED AREA
STORE IN A COOL, DARK PLACE OUT OF CONTACT WITH AIR
STORE UNDER NITROGEN

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SECTION 7 HANDLING AND STORAGE (CONTINUED)

USE ONLY WITH ADEQUATE VENTILATION
EXHAUST VENTILATION
SHOWERS
EYEWASH STATIONS

INFORMATION ON EMPTIED CONTAINER

DO NOT REUSE THIS CONTAINER
THIS CONTAINER WILL BE VERY HAZARDOUS WHEN EMPTIED
KEEP AWAY FROM HEAT, SPARKS AND FLAME
DO NOT PUNCTURE OR CUT THIS CONTAINER, AND DO NOT WELD ON OR NEAR THIS CONTAINER

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES

ACGIH TLV-TWA: 100PPM (XYLENE)

OSHA PEL: 100PPM (XYLENE)

RESPIRATORY PROTECTION:

USE IN A WELL VENTILATED AREA.

USE APPROVED NIOSH RESPIRATORY PROTECTION IF VENTILATION PROVES INADEQUATE VENTILATION:

VENTILATION MAY BE REQUIRED TO ACHIEVE SUFFICIENTLY LOW EXPOSURE LEVELS
PROTECTIVE CLOTHES/ GLOVES: USE BUTYL RUBBER GLOVES AND GOGGLES. IF CONDITIONS

WARRANT, USE BUTYL RUBBER APRON AND BOOTS
EYE PROTECTION: GOGGLES

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	165 C
VAPOR PRESSURE(20 C):	<10mmHg
VAPOR DENSITY(AIR=1):	UNKNOWN
SPECIFIC GRAVITY(25 C):	0.924 [WATER=1]

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES CONTINUED

MELTING POINT:	NA
EVAPORATION RATE:	<1
SOLUBILITY IN WATER:	~30%
APPEARANCE - COLOR:	LIGHT AMBER
APPEARANCE - FORM:	LIQUID
ODOR:	AROMATIC
% VOLATILE BY VOLUME:	<80

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SECTION 10 STABILITY AND REACTIVITY

STABILITY: STABLE
CONDITIONS TO AVOID: HEAT, SPARKS, OTHER SOURCES OF IGNITION
INCOMPATIBILITY (MATERIALS TO AVOID): OXIDIZING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, SILICON
DIOXIDE, AMINES
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION 11 TOXICOLOGICAL INFORMATION

SKIN IRRITATION: SKIN RABBIT: NONE
EYE IRRITATION: EYE-RABBIT: NONE
ACUTE TOXICITY (LD50): LD50 (Oral Rat): 4760 MG/KG
FERRO TLV: 5 PPM
ACUTE TOXICITY (LC50): LC50 (Inhalation Rat): UNKNOWN
CHRONIC TOXICITY: NO INFORMATION IS AVAILABLE
CARCINOGENICITY:
NTP: NO, IARC: NO, OSHA REGULATED: NO
PRINCIPAL ROUTES OF EXPOSURE: INHALATION, SKIN ABSORPTION, INGESTION

A STUDY WITH LABORATORY ANIMALS INDICATES THAT CHRONIC ALCOHOL (ETHANOL) INGESTION
MAY INCREASE THE POTENTIAL FOR TERATOGENIC OR OTHER TOXIC EFFECTS FROM EXPOSURE TO
GLYCOL ETHERS AND DIETHERS.

SECTION 12 ECOLOGICAL INFORMATION

BIODEGRADATION: NO INFORMATION IS AVAILABLE
BIOACCUMULATION: NO INFORMATION IS AVAILABLE
AQUATICTOXICITY: NO INFORMATION IS AVAILABLE
OTHER INFORMATION: NONE

SECTION 13 DISPOSAL CONSIDERATIONS

CAN BE BURNED IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER
BUT EXERT EXTRA CARE IN IGNITING AS THIS PRODUCT IS VERY FLAMMABLE.
DO NOT DISPOSE OF THE EMPTIED CONTAINER UNLESS THE CONTENTS HAVE BEEN COMPLETELY
REMOVED AND THE CONTAINER HAS BEEN FLUSHED WITH A CLEAN NEUTRAL SOLVENT AND THEN
DRIED.
DO NOT DISPOSE OF THE EMPTIED CONTAINER UNLAWFULLY. OBSERVE ALL FEDERAL, STATE, AND
LOCAL LAWS.

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SECTION 14 TRANSPORTATION INFORMATION

DOT SHIPPING CLASS: XYLENE SOLUTION
DOT HAZARD CLASS: FLAMMABLE LIQUID
DOT LABEL(S): FLAMMABLE

UN/NA NUMBER: 1307
PLACARDS: FLAMMABLE
EXPORT: NA
EPA HAZARD WASTE: D001, IGNITIBLE
OSHA HAZARD CLASS: FLAMMABLE LIQUID
CPSC CLASSIFICATION: FLAMMABLE LIQUID
TRANSPORTATION CLASS: IMO 3.3
RID(OCTI) FLAMMABLE
ADR(ECE) FLAMMABLE LIQUID
RAR(IATA) FLAMMABLE
NFPA/HMIS CLASSIFICATION: FLAMMABILITY: 3, REACTIVITY: 0, HEALTH 2

SECTION 15 REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:

*** THIS PRODUCT SHOULD BE USED ONLY FOR R&D PURPOSES AS DEFINED IN TSCA SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III SECTION 313
SUPPLIER NOTIFICATION: THIS REGULATION REQUIRES SUBMISSION OF ANNUAL REPORTS OF TOXIC CHEMICAL(S) THAT APPEAR IN SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT OF 1986 AND 40 CFR 372. THIS INFORMATION MUST BE INCLUDED IN ALL MSDSs THAT ARE COPIED AND DISTRIBUTED FOR THE MATERIAL.
THE TOXIC CHEMICALS CONTAINED IN THIS PRODUCT ARE: NONE

CALIFORNIA PROPOSITION 65:

THIS REGULATION REQUIRES A WARNING FOR CALIFORNIA PROPOSITION 65 CHEMICAL(S) UNDER THE STATUTE.

FOR INDUSTRIAL USE ONLY: THIS MATERIAL SAFETY DATA SHEET IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION. THE DATA DESCRIBED IN THIS MSDS CONSIST OF DATA ON LITERATURE, OUR ACQUISITIONAL DATA AND ANALOGICAL INFERENCE BY DATA OF SIMILAR CHEMICAL SUBSTANCES OR PRODUCTS. SHIN-ETSU CHEMICAL CO. LTD. PROVIDES NO WARRANTIES, EITHER EXPRESSED OR IMPLIED, AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE DATA CONTAINED HEREIN.

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