SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: SILIKOPHEN® P 80/X
Chemical name:
Phenyl-methyl-polysiloxane-resin-solution

Other means of identification
None.

Recommended restrictions

Recommended use: Industrial use
Restrictions on use: None known.

Manufacturer/Importer/Distributor Information

Company Name	:	Evonik Corporation Nutrition & Care 7801 Whitepine Road Richmond, VA 23237 USA
Telephone	:	+1 804 727 0700
Fax	:	+1 804 727 0845
E-mail	:	product-regulatory-services@evonik.com

Emergency telephone number:

24-Hour Health Emergency	:	+1 800 424 9300 (CHEMTREC - US & CANADA) 800 681 9531 (CHEMTREC MEXICO) +1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids	Category 3

Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 2
Toxic to reproduction	Category 2
Specific Target Organ Toxicity - Repeated Exposure	Category 2

Environmental Hazards

Acute hazards to the aquatic environment	Category 3

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:

Flammable liquid and vapor.
Causes skin irritation.
Causes serious eye damage.
Suspected of causing cancer.
Suspected of damaging fertility. Suspected of damaging the unborn child.
May cause damage to organs through prolonged or repeated exposure.
Harmful to aquatic life.
Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.
Sparks may ignite liquid and vapor.
May cause flash fire or explosion.

Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection. Use personal protective equipment as required.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. IF exposed or concerned: Get medical advice/attention. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: Store in a well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazard(s) not otherwise classified (HNOC): Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

3. Composition/information on ingredients

Chemical name:
Phenyl-methyl-polysiloxane-resin-solution

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
xylene, mixture of isomers		1330-20-7	10 - <20%
isobutanol		78-83-1	3 - <5%
ethylbenzene		100-41-4	1 - <5%
propylidynetrimethanol		77-99-6	0.1 - <1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General information: Remove soiled or soaked clothing immediately

Inhalation: fresh air supply, consult a doctor if feeling unwell.

Skin Contact: In case of contact with skin wash off with soap and water. If skin irritation persists, call a physician.

Eye contact: In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice

Ingestion: Thoroughly clean the mouth with water In case of discomfort: Supply with medical care.

Personal Protection for First-aid Responders: No data available.

Most important symptoms and effects, both acute and delayed

Symptoms: Risk of serious damage to eyes. Skin irritation

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: foam, carbon dioxide, dry powder, water spray.

Unsuitable extinguishing media:	High volume water jet.
Special hazards arising from the substance or mixture:	In the event of fire the following can be released: - Carbon monoxide, carbon dioxide, silicon dioxide - Formaldehyde Under certain conditions of combustion traces of other toxic substances cannot be excluded

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	Keep away from sources of ignition. Take action to prevent static discharges. Vapours may form explosive mixtures with air. Cool endangered containers by water spray
Special protective equipment for fire-fighters:	Do not inhale explosion and/or combustion gases. Self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Keep away sources of ignition. Ensure adequate ventilation.
Accidental release measures:	No data available.
Methods and material for containment and cleaning up:	Take up with absorbent material (eg sand, kieselguhr, universal binder) Dispose of absorbed material in accordance with the regulations.
Environmental Precautions:	Do not allow to enter drains or waterways Prevent product from getting into subsoil/soil.

7. Handling and storage

Handling

Technical measures:	No data available.
Local/Total ventilation:	No data available.
Safe handling advice:	Avoid contact with eyes. Do not inhale gases/vapours/aerosols.Provide good ventilation of working area (local exhaust ventilation if necessary). Use respiratory protection during spraying.
Contact avoidance measures:	No data available.

Storage

Safe storage conditions:	Keep container tightly closed in a cool, well-ventilated place.Keep away from heat.Do not store together with oxidizing agents.
Safe packaging materials:	No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
xylene, mixture of isomers	STEL	150 ppm	655 mg/m3	NIOSH (2016)
	REL	100 ppm	435 mg/m3	NIOSH (2016)
	PEL	100 ppm	435 mg/m3	OSHA Z1 (03 2016)
	AN ESL		180 µg/m3	TX ESL (06 2018)
	ST ESL		510 ppb	TX ESL (06 2018)
	ST ESL		2,200 µg/m3	TX ESL (06 2018)
	AN ESL		41 ppb	TX ESL (06 2018)
	TWA	20 ppm		ACGIH (01 2022)
isobutanol	TWA	50 ppm		ACGIH (03 2016)
	REL	50 ppm	150 mg/m3	NIOSH (2010)
	PEL	100 ppm	300 mg/m3	OSHA Z1 (03 2016)
ethylbenzene	TWA	20 ppm		ACGIH (03 2016)
	REL	100 ppm	435 mg/m3	NIOSH (2010)
	STEL	125 ppm	545 mg/m3	NIOSH (2010)
	PEL	100 ppm	435 mg/m3	OSHA Z1 (03 2016)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

Chemical name	Parameters / Sampling Time	Exposure Limit Values	Source
xylene, mixture of isomers	Methylhippuric acids Sampling time: End of shift.	1.5 g/g (Creatinine in urine)	ACGIH BEI (03 2016)
methanol	methanol Sampling time: End of shift.	15 mg/l (Urine)	ACGIH BEI (03 2016)
xylene, mixture of isomers	Methylhippuric acids Sampling time: End of shift.	1.5 g/g (Creatinine in urine)	ACGIH BEI (03 2016)
ethylbenzene	Sum of mandelic acid and phenylglyoxylic acid Sampling time: End of shift.	0.15 g/g (Creatinine in urine)	ACGIH BEI (03 2016)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

Eye/face protection: Tightly fitting safety goggles

Skin Protection

Hand Protection: Material: Fluorinated rubber
Break-through time: 480 min

Skin and Body Protection: protective clothing

Respiratory Protection: in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2

Hygiene measures:	Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Remove soiled or soaked clothing immediately.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	of xylene
Odor Threshold:	not measured
Freezing point:	not measured
Boiling Point:	not measured
Flammability:	not measured

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	86 °F/30 °C Method: DIN EN ISO 2719
Auto-ignition temperature:	not measured
Decomposition Temperature:	not measured
pH:	Not applicable, substance/mixture is non-soluble (in water)

Viscosity

Dynamic viscosity:	Approximate 3,000 mPa.s at 77 °F/25 °C Method: DIN 53019
Kinematic viscosity:	Approximate 2679 mm2/s at 77 °F/25 °C , Method: calculated
Flow Time:	No data available.

Solubility(ies)

Solubility in Water:	Insoluble
Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	not measured
Relative density:	not measured
Density:	1.12 g/cm3 at 77 °F/25 °C Method: DIN 51757
Bulk density:	No data available.
Relative vapor density:	not measured

Other information

Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Self-ignition:	not measured
Metal Corrosion:	Not corrosive to metals
Evaporation Rate:	not measured

10. Stability and reactivity

Reactivity:	see section "Possibility of hazardous reactions".
Chemical Stability:	The product is stable under normal conditions.
Possibility of hazardous reactions:	Hydrolysis may result in formation of methanol depending on the specific conditions of use.
Conditions to avoid:	Open flames, sparks or input of much heat
Incompatible Materials:	Oxidizing agents.
Hazardous Decomposition Products:	Minor amounts of formaldehyde may develop in the presence of air and at temperatures > 150°C. experiments indicate that small amounts of benzene are evolved when heated to approx. 180°C and above.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	Information on effects are given below.
Skin Contact:	Information on effects are given below.
Eye contact:	Information on effects are given below.
Ingestion:	Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral
Product: LD 50, ATEmix, 2,204 mg/kg

Dermal
Product: LD 50, ATEmix, > 5,000 mg/kg

Inhalation
Product: LC 50, ATEmix, 4 h, > 40 mg/l, Vapour

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Serious Eye Damage/Eye Irritation
Product: No data available.

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity
Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

ethylbenzene	Overall evaluation: 2B. Possibly carcinogenic to humans.

ACGIH: US.ACGIH Threshold Limit Values:

ethylbenzene	Hazard Designation: Group A3. Confirmed animal carcinogen with unknown relevance to humans. Hazard Designation: Ototoxicant

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended:
No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity
No data available.

In vitro

Product:	No data available.
Components:	
xylene, mixture of isomers	Chromosomal aberration: , negative sister chromatid exchange assay: , negative
ethylbenzene	gene mutation test, OECD 476: , negative Chromosomal aberration, OECD 473: , negative
propylidynetrimethanol	Ames test, OECD 471: , negative Chromosomal aberration, OECD 473: , negative gene mutation test, OECD 476: , negative

In vivo

Product:	No data available.
Components:	
xylene, mixture of isomers	dominant lethal test, OECD 478, Dermal, Mouse, Male, negative dominant lethal test, OECD 478, Intraperitoneal, Mouse, Male, negative
ethylbenzene	Micronucleus test, OECD 474, Oral, Mouse, Male, negative unscheduled DNA synthesis assay, OECD 486, Inhalation - vapor, Mouse, Female, Male, negative

Reproductive toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: Not classified

Information on health hazards

Other hazards
Product: No data available.

12. Ecological information

Ecotoxicity:
Acute hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product:

Toxicity to microorganisms
Product: No data available.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to microorganisms
Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)
Product: No data available.

Partition Coefficient n-octanol / water (log Kow)
Product: , not measured

Mobility in soil:

Product: No data available.

Results of PBT and vPvB assessment:

Product: No data available.

Other adverse effects:

Other hazards

Product: Do not allow to enter soil, waterways or waste water canal. Based on expert judgement and on experimental data within an analogue approach, the maximum estimated aqueous concentration of typical impurities of siloxane polymers, migrating into water is below their established no-effect threshold value for aquatic organisms.

13. Disposal considerations

Disposal methods: In accordance with local authority regulations, take to special waste incineration plant

Contaminated Packaging: If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

14. Transport information

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 1866
Proper shipping name	:	Resin solution
Class	:	3
Packing group	:	III
Labels	:	3
ERG Code	:	127
Marine pollutant	:	no

International Regulations

IATA-DGR

UN/ID No.	:	UN 1866
Proper shipping name	:	Resin solution
Class	:	3
Packing group	:	III
Labels	:	3
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number or ID number	:	UN 1866
Proper shipping name	:	RESIN SOLUTION
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no
Remarks	:	Stowage category A

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity
BENZENE, DIMETHYL
1-PROPANOL, 2-METHYL-
ETHYLBENZENE
ETHYLENE GLYCOL
METHANOL
1-BUTANOL
BENZENE, METHYL-
BENZENE,1-METHYLETHYL-

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), Skin Corrosion or Irritation, Serious eye damage or eye irritation, Carcinogenicity, Reproductive toxicity, Specific target organ toxicity (single or repeated exposure), Hazards Not Otherwise Classified (HNOC)

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities.

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

Chemical Identity	% by weight
XYLENE (MIXED ISOMERS)	1.0%
ETHYLBENZENE	0.1%

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

Chemical Identity
XYLENE (MIXED)
ETHYLBENZENE

TOLUENE

US State Regulations

US. California Proposition 65

WARNING: This product can expose you to chemicals including, ethylbenzene**,** cumene which is [are] known to the State of California to cause cancer.

For more information go to www.P65Warnings.ca.gov.

Inventory Status:

US TSCA Inventory:	Included on Inventory.
Canada DSL Inventory List:	Included on Inventory.

16.Other information, including date of preparation or last revision

HMIS Hazard ID

Health	*	3
Flammability		3
Physical Hazards		0
PERSONAL PROTECTION		X

Consult supervisor for special handling instructions for these substances.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

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Abbreviations and acronyms:

ACGIH:	US. ACGIH Threshold Limit Values, as amended
ACGIH BEI:	US. ACGIH. BEIs. Biological Exposure Indices, as amended
NIOSH/GUIDE:	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
OSHA_TRANS:	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
TX ESL:	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
ACGIH / TWA:	Time Weighted Average (TWA):
NIOSH/GUIDE / REL:	Recommended exposure limit (REL):
NIOSH/GUIDE / STEL:	Short Term Exposure Limit (STEL):
OSHA_TRANS / PEL:	Permissible exposure limit:
TX ESL / ST ESL:	Short-Term ESL:
TX ESL / AN ESL:	Annual ESL:

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical

Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further Information: No data available.

Revision Information Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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