SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: SILIKOPON EC
Chemical name:
Silicone epoxide in organic solvent

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 PO Box 34628 Richmond, VA 23234 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

Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 2
Toxic to reproduction	Category 1B
Specific Target Organ Toxicity - Single Exposure	Category 3 (Narcotic effect.)
Specific Target Organ Toxicity - Repeated Exposure	Category 2

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:

Flammable liquid and vapor.
Causes serious eye damage.
Suspected of causing cancer.
May damage fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention: 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 equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER/doctor. In case of fire: Use… to extinguish.

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

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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:
Silicone epoxide in organic solvent

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
2-methoxy-1-methylethyl acetate		108-65-6	20 - <50%

isobutanol		78-83-1	1 - <3%
Butyl acetate		123-86-4	1 - <5%
xylene, mixture of isomers		1330-20-7	1 - <5%
ethylbenzene		100-41-4	0.1 - <1%
2-methoxypropyl acetate		70657-70-4	0.1 - <0.3%

* 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 necessary 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 immediately with soap and water In case of discomfort: Supply with medical care.

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. Depending on the dose inhalation and/or ingestion may cause: headache, inebriation, unconsciousness.

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 - Titanium oxide Under certain conditions of combustion traces of other toxic substances cannot be excluded

Special protective equipment and precautions for fire-fighters

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 combusition 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:	Prevent product from getting into subsoil/soil. Do not allow to enter drains or waterways

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	Good general (mechanical) ventilation should be sufficient to control airborne levels.
Safe handling advice:	Provide good ventilation of working area (local exhaust ventilation if necessary).Avoid contact with skin and eyes. Do not inhale gases/vapours/aerosols.
Contact avoidance measures:	No data available.

Storage

Safe storage conditions:	Keep container tightly closed in a cool, well-ventilated place.Keep away from heat.
Safe packaging materials:	No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
isobutanol	TWA	50 ppm		US. ACGIH Threshold Limit Values, as amended (03 2016)
	REL	50 ppm	150 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	PEL	100 ppm	300 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (03 2016)
Butyl acetate	TWA	50 ppm		US. ACGIH Threshold Limit Values, as amended (03 2016)
	STEL	150 ppm		US. ACGIH Threshold Limit Values, as amended (03 2016)
	REL	150 ppm	710 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)

	STEL	200 ppm	950 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	PEL	150 ppm	710 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (03 2016)
xylene, mixture of isomers	TWA	100 ppm		US. ACGIH Threshold Limit Values, as amended (03 2016)
	STEL	150 ppm		US. ACGIH Threshold Limit Values, as amended (03 2016)
	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2016)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2016)
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (03 2016)
	AN ESL		180 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)
	ST ESL		510 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)
	ST ESL		2,200 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)
	AN ESL		41 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)
ethylbenzene	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended (03 2016)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	STEL	125 ppm	545 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (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)
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 Good general (mechanical) ventilation should be sufficient to control airborne levels.

Individual protection measures, such as personal protective equipment

Eye/face protection: Tightly fitting safety goggles

Skin Protection

Hand Protection:	Material: Butyl 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:	Pale yellow
Odor:	Characteristic
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:	91 °F/33 °C (DIN EN 22719)
Self Ignition Temperature:	not measured
Decomposition Temperature:	not measured
pH:	Not applicable
Viscosity	
Dynamic viscosity:	660 - 1,500 mPa.s (77 °F/25 °C, DIN 53015)
Kinematic viscosity:	600 - 1364 mm2/s (77 °F/25 °C, 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:	1.07 - 1.10 g/cm3 (77 °F/25 °C) (DIN 51757)
Bulk density:	No data available.
Relative vapor density:	not measured

Other information

Explosive properties:	not measured

Oxidizing properties:	not oxidizing
Minimum ignition temperature:	not measured
Metal Corrosion:	Does not corrode metal.
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:	Not known.
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 toxicological effects

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: No data available.

Dermal
Product: No data available.

Inhalation
Product: No data available.
Not classified for acute toxicity based on available data.

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.

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

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), 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

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:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 1,000 mg/l (OECD 201)
isobutanol	EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 632 mg/l (OECD 201) Literature EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 1,799 mg/l (OECD 201)
Butyl acetate	EC 50 (Desmodesmus subspicatus (green algae), 72 h): 647 mg/l
xylene, mixture of isomers	EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 4.36 mg/l (OECD 201) growth rate EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 2.2 mg/l (OECD 201) Biomass
ethylbenzene	EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 5.4 mg/l (US-EPA-method) EC 50 (Skeletonema costatum (marine diatom), 72 h): 4.9 mg/l (US-EPA-method) saltwater

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 Aquatic Plants

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	NOEC (Algae (Pseudokirchneriella subcapitata), 96 h): 1,000 mg/l (OECD 201)
isobutanol	NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): 53 mg/l (OECD 201) Literature
Butyl acetate	NOEC (Desmodesmus subspicatus (green algae), 72 h): 200 mg/l
xylene, mixture of isomers	NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): 1.3 mg/l (OECD 201) growth rate NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): 0.44 mg/l (OECD 201) Biomass

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: Log Kow: 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.

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 1910.1001-1050), as amended
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity
1-PROPANOL, 2-METHYL-
BUTYL ACETATE
BENZENE, DIMETHYL
ETHYLBENZENE
METHANOL
1-BUTANOL
BENZENE, METHYL-

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), 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
BUTYL ACETATE
XYLENE (MIXED)
ETHYLBENZENE
TOLUENE

US State Regulations

US. California Proposition 65

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

This product can expose you to chemicals including, methanol**,** Toluene which is [are] known to the State of California to cause birth defects or other reproductive harm.

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

Inventory Status:

US TSCA Inventory:	Included on Inventory.	
Canada NDSL Inventory:	Included on Inventory.	Evonik has submitted a non-Final NSN (New Substance Notification) for this substance.

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

HMIS Hazard ID

Health	*	3
Flammability		3
Physical Hazards		0
PERSONAL PROTECTION		B

B - Safety Glasses & Gloves

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

Issue Date: 03/13/2019

Version #: 2.0

Further Information: No data available.

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

Disclaimer:

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