

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: TEGO® Rad 2500

Other means of identification

CAS Number: 125455-52-9

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 : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency 800 681 9531 (CHEMTREC MEXICO)

+1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Skin sensitizer

Sub-category 1B

Label Elements

Hazard Symbol:



Signal Word:

Warning

Hazard Statement:

May cause an allergic skin reaction.

Precautionary Statements

- Prevention:** Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Wear protective gloves/eye protection/face protection.
- Response:** IF ON SKIN: Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
- 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): None.

3. Composition/information on ingredients
Substances

| Chemical Identity | Common name and synonyms | CAS number | Content in percent (%) [*] |
|--|--------------------------|-------------|-------------------------------------|
| Siloxanes and Silicones, di-Me, 3-[2-(hydroxy-3-[(1-oxo-2-propenyl)oxy]propoxy)propyl group-terminated | | 125455-52-9 | 98% |

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

Composition information of impurities and stabilizers

| Chemical Identity | Common name and synonyms | CAS number | Content in percent (%) [*] |
|------------------------------|--------------------------|------------|-------------------------------------|
| Decamethylcyclopentasiloxane | | 541-02-6 | <1.0% |

* 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 with soap and water. In case of discomfort: Supply with medical care.
- Eye contact:** In case of contact with eyes rinse thoroughly with water. In case of discomfort: Supply with medical care.

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: Up to now no symptoms are known.

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 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: No specific precautions.

Special protective equipment for fire-fighters: Do not inhale explosion and/or combustion gases. Use self-contained breathing apparatus and wear protective suit

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. 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 (e.g. Local and general ventilation): Installation of an appropriate extraction system is necessary: - on the coater head if aerosol formation (misting) of the liquid silicone is observed - at the end of the UV chamber to remove most of the nitrogen gas (free radical curing silicones only), ozone and potential volatiles from the

coating material. - when converting cured silicone at temperatures above 120°C - e.g. embossing and hotmelt coating - to remove potentially outgassing components. Short term: filter apparatus, combination filter A-P2

Safe handling advice:

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. If vapours / aerosols are generated during processing, local extraction at the processing machines is recommended. Do not inhale aerosols/ vapours/ gases as they are hazardous.

Contact avoidance measures:

No data available.

Storage

Safe storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Keep away from direct sunlight. Do not store together with oxidizing agents. Maximum storage temperature: 30 °C

Safe packaging materials:

No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Hazardous components without workplace control parameters

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls

Installation of an appropriate extraction system is necessary:
 - on the coater head if aerosol formation (misting) of the liquid silicone is observed - at the end of the UV chamber to remove most of the nitrogen gas (free radical curing silicones only), ozone and potential volatiles from the coating material. - when converting cured silicone at temperatures above 120°C - e.g. embossing and hotmelt coating - to remove potentially outgassing components. Short term: filter apparatus, combination filter A-P2

Individual protection measures, such as personal protective equipment

Eye/face protection:

Safety glasses

Skin Protection

Hand Protection:

Material: Nitrile 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:

When using do not eat, drink or smoke. Remove soiled or soaked clothing immediately. Wash hands before breaks and immediately after handling the product. Use skin protective preparation as preventive skin protection.

9. Physical and chemical properties
Information on basic physical and chemical properties
Appearance

| | |
|------------------------|--------------|
| Physical state: | liquid |
| Form: | liquid |
| Color: | coloured |
| Odor: | like acrylic |
| 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: | > 212 °F/> 100 °C (DIN EN 22719) |
| Self Ignition Temperature: | not measured |
| Decomposition Temperature: | not measured |
| pH: | Not applicable |

Viscosity

| | |
|-----------------------------|--|
| Dynamic viscosity: | Approximate 150 mPa.s (77 °F/25 °C, DIN 53019) |
| Kinematic viscosity: | Approximate 150 mm ² /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: | Approximate 1 g/cm ³ (77 °F/25 °C) |
| 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: | 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: | Risk of polymerisation. |
| Conditions to avoid: | Open flames, sparks or input of much heat direct sunlight |
| Incompatible Materials: | Oxidizing agents. |
| Hazardous Decomposition Products: | None with proper storage and handling. |

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: LD 50 (Rat): > 2,000 mg/kg

Dermal
Product: No data available.

Inhalation
Product: No data available.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: Not irritating Not irritating;

Serious Eye Damage/Eye Irritation
Product: Not irritating Not irritating

Respiratory or Skin Sensitization
Product: Magnussona i Kligmana., OECD 406 (Guinea Pig): Skin sensitizer

Carcinogenicity
Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogens present or none present in regulated quantities

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:

Decamethylcyclopentasiloxane
Ames test (OECD 471): negative
gene mutation test (OECD 476): negative
Chromosomal aberration (OECD 473): negative
DNA damage and/or repair: negative

In vivo

Product: No data available.

Components:

Decamethylcyclopentasiloxane
Micronucleus test (OECD 474) Inhalation (Rat, Female, Male): negative
unscheduled DNA synthesis assay (OECD 486) Inhalation (Rat, 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.

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.

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

Not regulated as a dangerous good

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

15. Regulatory information

US Federal Regulations

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

No substances are subject to TSCA 12(b) export notification requirements.

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)

No substances are subject to a Significant New Use Rule.

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):

Reportable Quantity not reasonably exceeded.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Not classified

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

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

None present or none present in regulated quantities.

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)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

Inventory Status:

| | | |
|----------------------------|--|--|
| Canada DSL Inventory List: | Not in compliance with the inventory. | |
| US TSCA Inventory: | On or in compliance with the inventory | |

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

HMIS Hazard ID

| | |
|----------------------------|---|
| Health | 1 |
| Flammability | 1 |
| Physical Hazards | 0 |
| PERSONAL PROTECTION | X |

Ask supervisor or safety specialist for handling instructions

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 #: 1.3

Further Information: No data available.

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

Disclaimer: This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.