

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: TEGO® Variplus 1201 TF

Chemical name:
Polyurethane polyol resin

Other means of identification

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 : +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

Physical Hazards

Flammable liquids Category 2

Health Hazards

Serious eye irritation Category 2A

Specific Target Organ Toxicity -
Single Exposure Category 3¹

Target Organs

1. Central nervous system.

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Highly flammable liquid and vapor.
 Causes serious eye irritation.
 May cause drowsiness or dizziness.

Precautionary Statements

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting/...] equipment. Use non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. 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. Call a POISON CENTER/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention. In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.

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

Disposal: Dispose of contents/ container to an approved waste disposal plant.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Chemical name:
 Polyurethane polyol resin

Mixtures

Chemical Identity	CAS number	Content in percent (%) [*]
Ethyl acetate	141-78-6	>=50 - <70%

^{*} 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:	Ensure supply of fresh air. In the event of symptoms seek medical advice.
Skin Contact:	In case of contact with skin wash off immediately with plenty of water In the event of symptoms seek medical advice.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water. If symptoms persist, seek medical advice.
Ingestion:	Thoroughly clean the mouth with water In the event of symptoms seek medical advice.
Personal Protection for First-aid Responders:	Do not inhale explosion and/or combustion gases, Self-contained breathing apparatus.

Most important symptoms/effects, acute and delayed

Symptoms:	Serious eye irritation 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.
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5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Foam, carbon dioxide or dry powder.
Unsuitable extinguishing media:	Full water jet

Specific hazards arising from the chemical:	In the event of fire the following can be released: - carbon dioxide, carbon monoxide - Nitrogen oxides (NOx)
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Special protective equipment and precautions for firefighters

Special fire fighting procedures:	Keep away from sources of ignition - no smoking. Take action to prevent static discharges. Cool endangered containers by water spray Vapours may form explosive mixtures with air
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.
Methods and material for containment and cleaning up:	Take up with absorbent material (eg sand, kieselguhr, acid binder, universal binder, sawdust). Dispose of absorbed material in accordance with the regulations.
Environmental Precautions:	Do not allow to enter drains or waterways Do not discharge into the subsoil/soil.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	No data available.
Safe handling advice:	Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Provide good ventilation of working area (local exhaust ventilation if necessary). Wear respiratory protection when spraying.
Contact avoidance measures:	No data available.
Hygiene measures:	Wash hands before breaks and immediately after handling the product. Remove soiled or soaked clothing immediately. Do not eat, drink or smoke when working.

Storage

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

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.
 Hazardous components without workplace control parameters

Appropriate Engineering Controls	No data available.
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Individual protection measures, such as personal protective equipment

Eye/face protection:	safety glasses
Skin Protection	
Hand Protection:	Material: gloves made of nitril (NBR) 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. Remove soiled or soaked clothing immediately. Do not eat, drink or smoke when working.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	colourless to yellowish
Odor:	Solvent-like
Odor Threshold:	not measured
pH:	Not applicable

Freezing point:	not measured
Boiling Point:	approx. 75 °C Solvent
Flash Point:	approx. 24.80 °F (DIN 53213)
Evaporation Rate:	not measured
Flammability (solid, gas):	no data available
Explosive limit - upper (%):	11.5 %(V) Solvent
Explosive limit - lower (%):	2.1 %(V) Solvent
Vapor pressure:	approx. 100 hPa (20 °C) Solvent
Vapor density (air=1):	not measured
Density:	approx. 1.04 g/cm ³ (20 °C)
Relative density:	No data available.
Solubility(ies)	
Solubility in Water:	partly soluble
Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Self Ignition Temperature:	not measured
Decomposition Temperature:	not measured
Kinematic viscosity:	No data available.
Dynamic viscosity:	approx. 2,000 mPa.s (20 °C, DIN 53015 (Höppler))
Other information	
Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Minimum ignition temperature:	approx. 460 °C (DIN 51794) Solvent
Metal Corrosion:	Not corrosive to metals

10. Stability and reactivity

Reactivity:	see section "Possibility of hazardous reactions"
Chemical Stability:	The product is stable under normal conditions.
Possibility of hazardous reactions:	No hazardous reactions with proper storage and handling.
Conditions to avoid:	Unknown
Incompatible Materials:	Unknown
Hazardous Decomposition Products:	None with proper storage and handling.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	Relevant route of exposure. Information on effects are given below.
Skin Contact:	Relevant route of exposure. Information on effects are given below.
Eye contact:	Relevant route of exposure. Information on effects are given below.
Ingestion:	If handled correctly, not a relevant route of exposure. Information on effects are given below.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral	
Product:	no data available
Dermal	
Product:	no data available
Inhalation	
Product:	no data available

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:

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):

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

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**Other effects:** No data available.**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Aquatic Invertebrates****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.**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:** No data available.**Components:**

Ethyl acetate No data available.

Other adverse effects: 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 : II
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 : II
Labels : 3
Packing instruction (cargo aircraft) : 364
Packing instruction (passenger aircraft) : 353

IMDG-Code

UN number : UN 1866
Proper shipping name : RESIN SOLUTION

Class : 3

Packing group : II
 Labels : 3
 EmS Code : F-E, S-E
 Marine pollutant : no
 Remarks : Stowage category B

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)

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Formaldehyde	Acute toxicity Skin irritation Skin sensitization Flammability Respiratory tract irritation. Respiratory sensitization Cancer Eye irritation

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Ethyl acetate	5000 lbs.
Ethanone, 1-phenyl-	5000 lbs.
Formaldehyde	100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure)

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Formaldehyde	100 lbs.	500 lbs.

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

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Formaldehyde	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

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

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Formaldehyde	15000 lbs

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

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65



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

US. New Jersey Worker and Community Right-to-Know Act

<u>Chemical Identity</u>
Ethyl acetate

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

<u>Chemical Identity</u>
Ethyl acetate

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

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
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HMIS Hazard ID

Health	2
Flammability	3
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

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Version #: 1.0

Further Information: none

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

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