

Safety Data Sheet

FORBO EZ-ON 100
Revision Number 1

Revision Date 12-Apr-2019
Supersedes Date: 12-Apr-2019

1. Identification

1.1. Product Identifier

Product Name FORBO EZ-ON 100

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Adhesives.
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Responsible Party

Forbo Flooring Systems
Humbolt Industrial Park
8 Maplewood Drive
Hazelton PA 18202 USA
Phone: USA +1 (800) 842-7839
Canada +1 (800) 268-8108

1.4. Emergency telephone number

Telephone: 1-800-842-7839

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1

2.2. Label Elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Causes serious eye damage
May cause an allergic skin reaction



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Appearance viscous	Physical State Liquid	Odor Characteristic
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Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

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 or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Precautionary Statements - Storage

Not applicable

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown acute toxicity

77 % of the mixture consists of ingredient(s) of unknown toxicity

2.3. Other Information

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Mixture

3.2 Mixtures

Chemical name	CAS No.	Weight-%
N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine	1760-24-3	3 - 7
Silane, ethenyltrimethoxy-	2768-02-7	1 - 5
Titanium dioxide	13463-67-7	0.1 - 1

**The exact percentage (concentration) of composition has been withheld as a trade secret.*

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice

Remove contaminated clothing and shoes. If medical advice is needed, have product container or label at hand.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Hold eyelids apart and consult an physician.

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. May cause sensitization by

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skin contact. In the case of skin irritation or allergic reactions see a physician.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Ingestion If swallowed, rinse mouth with water (only if the person is conscious). If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Self-protection of the first aider Use personal protective equipment as required.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms Causes serious eye damage. Repeated or prolonged skin contact with the unexposed coating may cause skin irritation and/or dermatitis and sensitization in susceptible persons.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. May cause sensitization by skin contact. Treat symptomatically.

4.4. Reference to Other Sections

Reference to other sections Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
Section 11: TOXICOLOGY INFORMATION

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Extinguishing powder. Water spray or fog. Alcohol resistant foam.

Unsuitable extinguishing media

Strong water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

Thermal decomposition can lead to release of toxic/corrosive gases and vapors. Carbon monoxide. Carbon dioxide (CO₂). Halogenated hydrocarbons. Nitrogen oxides (NO_x). May cause sensitization by skin contact.

Hazardous Combustion Products

Carbon monoxide. Carbon dioxide (CO₂).

Explosion Data

Sensitivity to mechanical impact

None.

Sensitivity to static discharge

None.

5.3. Advice for firefighters

Special protective actions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

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6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protection equipment. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing. Do not touch or walk through spilled material.

6.2. Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not allow to enter into soil/subsoil. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

6.4. Reference to other sections

Reference to other sections Section 7: HANDLING AND STORAGE
Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
Section 13: DISPOSAL CONSIDERATIONS

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. After contact with skin, wash immediately with plenty of water and soap. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep/store only in original container. Keep away from food, drink and animal feeding stuffs. Protect from sunlight. Store in a well-ventilated place. Keep from freezing. Protect from moisture. Keep at temperatures between 65 and 95 °C.

Incompatible materials Water.

7.3. Specific end use(s)

Specific Use(s)
Adhesives.

Other information No information available.

7.4. References to Other Sections

Reference to other sections Section 13: DISPOSAL CONSIDERATIONS
Section 10: STABILITY AND REACTIVITY

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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8.1. Control parameters

Exposure Guidelines

This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

Chemical name	ACGIH TLV	NIOSH IDLH	OSHA PEL	Mexico
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	IDLH: 5000 mg/m ³ TWA: 2.4 mg/m ³ CIB 63 fine TWA: 0.3 mg/m ³ CIB 63 ultrafine, including engineered nanoscale	TWA: 15 mg/m ³ total dust	TWA: 10 mg/m ³ STEL: 20 mg/m ³

Chemical name	Argentina	Brazil	Chile	Venezuela
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	-	-	TWA: 10 mg/m ³

Chemical name	ACGIH TLV	NIOSH IDLH	OSHA PEL	Mexico
Methyl alcohol 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³	TWA: 200 ppm TWA: 260 mg/m ³	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 310 mg/m ³

Chemical name	Argentina	Brazil	Chile	Venezuela
Methyl alcohol 67-56-1	TWA: 200 ppm Skin STEL: 250 ppm	TWA: 156 ppm TWA: 200 mg/m ³ Skin	TWA: 175 ppm TWA: 229 mg/m ³ Skin	Skin STEL: 250 ppm TWA: 200 ppm

8.2. Exposure controls

OTHER INFORMATION

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Personal protective equipment [PPE]

Eyeface protection

Tight sealing safety goggles.

Skin and body protection

Wear suitable chemical resistant gloves. The selection of suitable gloves does not only depend on the material, but also on further marks of quality and various manufacturers.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General hygiene considerations

Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area and clothing is recommended.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State

Liquid

Appearance

viscous

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Color	light brown
Odor	Characteristic
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No data available	
Boiling point / boiling range	No data available	
Flash Point	156 °C / 313 °F	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability or explosive limits	No information available	
Lower flammability or explosive limits	No information available	
Vapor Pressure	No information available	
Vapor Density	No information available	
Relative Density	No information available	
Water Solubility	No information available	
Solubility in Other Solvents		
Partition coefficient	No information available	
Autoignition Temperature	No information available	
Decomposition Temperature	No information available	
Kinematic Viscosity	No information available	
 Dynamic Viscosity	 No information available	
 Explosive properties	 No information available	
Oxidizing properties	No information available	
 9.2. Other information		
Softening Point	No information available	
Molecular Weight	No information available	
Solvent content (%)	No information available	
Solid content (%)	No information available	
Density	1.02 g/cm ³	
VOC (volatile organic compound)		No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Product cures with moisture.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Protect from moisture. Product cures with moisture.

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10.5. Incompatible materials

Water.

10.6. Hazardous decomposition products

None known based on information supplied.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Product Information	No data available
Inhalation	Based on available data, the classification criteria are not met.
Eye contact	Corrosive to eyes. Avoid contact with eyes.
Skin contact	May cause sensitization by skin contact.
Ingestion	Based on available data, the classification criteria are not met.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine 1760-24-3	= 2295 mg/kg (Rat)	>2000 mg/Kg (Rat)	LC50 4H (Aerosol) 1.5 - 2.44 mg/L air
Silane, ethenyltrimethoxy- 2768-02-7	LD 50 = 7120 -7236 mg/kg (Rat) OECD 401	= 3360 µL/kg (Rabbit)	LC50 (4hr) 16.8 mg/l (rat) OECD TG 403
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Symptoms	No information available.
Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	Causes severe eye damage.
Irritation	No information available.
Corrosivity	No information available.
Sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	No information available.
Reproductive toxicity	No information available.
Developmental Toxicity	No information available.
Teratogenicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	No information available.
Target Organ Effects	Eyes, retina, Skin.
Aspiration hazard	Not applicable.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen. As Titanium dioxide (13463-67-7) is inextricably bound in the polymer matrix, it is not expected to be available as an airborne hazard (dust, mist, or spray) under normal condition of uses.

Chemical name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7	-	Group 2B	-	X

*IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans*

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OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine 1760-24-3		LC50 (96H) =597 mg/L Fish (Danio rerio)Semi-static		EC50 (48h) =81mg/L Daphnia magna Static
Silane, ethenyltrimethoxy- 2768-02-7	EC 50 (72h) > 957 mg/l (Desmodesmus subspicatus) EU Method C.3	LC50 (96h) = 191 mg/l (Oncorhynchus mykiss)		EC50(48hr) 168.7mg/l (Daphnia magna)

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal of Wastes

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations

Contaminated packaging

Dispose of in accordance with federal, state and local regulations

Section 14: TRANSPORT INFORMATION

DOT

Not regulated

IATA

Not regulated

IMDG

Not regulated

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Section 15: REGULATORY INFORMATION

Global Inventories

TSCA	Listed
DSL	Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL - Canadian Domestic Substances List

Listed - The components of this product are either listed or exempt from listing on inventory.

Not Listed - One or more components of this product are not listed on inventory.

United States of America

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Europe

Restrictions of Use of Hazardous Substances (RoHS) Directive 2011/65/EU

This product does not contain Lead (7439-92-1), Cadmium (7440-43-9), Mercury (7439-97-6), Hexavalent chromium (7440-47-3), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ethers (PBDE) above the regulated limit mentioned in this regulation

SVHC: Substances of Very High Concern for Authorization:

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

No information available

Key Literature References and Sources for Data

No information available

Prepared By Product Safety & Regulatory Affairs

Revision Date 12-Apr-2019

Revision note Not applicable.

Training Advice No information available

Further information No information available

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Disclaimer

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End of Safety Data Sheet