

Safety Data Sheet

Forbo C930 Conductive Adhesive
Revision Number 1

Revision Date 03-May-2019
Supersedes Date: 03-May-2019

1. Identification

1.1. Product Identifier

Product Name Forbo C930 Conductive Adhesive

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 NA
Humbolt Industrial Park
8 Maplewood Drive
Hazelton, PA 18202 USA
Phone: +1 (800) 842-7839

1.4. Emergency telephone number

Telephone: +1 (800) 842-7839

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

2.2. Label Elements

EMERGENCY OVERVIEW

Warning

Hazard statements
Causes skin irritation
Causes serious eye irritation



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Appearance viscous Liquid **Physical State** Liquid **Odor** Slight

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Not applicable
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Precautionary Statements - Storage

Not applicable

Precautionary Statements - Disposal

Not applicable

Hazards not otherwise classified (HNOC)

Not applicable

Unknown acute toxicity

3 % of the mixture consists of ingredient(s) of unknown toxicity

2.3. Other Information

No information available.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Mixture

3.2 Mixtures

Chemical name	CAS No.	Weight-%
Limestone	1317-65-3	15 - 40
Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates	68308-67-8	1 - 5
Quartz	14808-60-7	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

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. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

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Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Ingestion	Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician or poison control center immediately.
Self-protection of the first aider	Use personal protective equipment as required.

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

Symptoms Irritating to eyes. Irritating to skin.

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

Note to physicians 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

Water spray (fog). Carbon dioxide (CO₂). Foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide (CO₂). Hydrocarbons.

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.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Avoid contact with eyes and skin. Keep people away from and upwind of spill/leak. Do not touch damaged packages or spilled material.

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6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

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. Ensure adequate ventilation, especially in confined areas. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. 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 out of the reach of children. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep from freezing.

Incompatible materials No information available.

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

8.1. Control parameters

Exposure Guidelines . This product contains substances which in their raw state are powder form, however in

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this product they are in a non-respirable form. Inhalation of powder/dust particles is unlikely to occur from exposure to this product.

Chemical name	ACGIH TLV	NIOSH IDLH	OSHA PEL	Mexico
Limestone 1317-65-3	-	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ STEL: 20 mg/m ³
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust	TWA: 50 µg/m ³ TWA: 50 µg/m ³ excludes construction work, agricultural operations, and exposures that result from the processing of sorptive clays : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	TWA: 0.1 mg/m ³

Chemical name	Argentina	Brazil	Chile	Venezuela
Limestone 1317-65-3	TWA: 10 mg/m ³	-	TWA: 7 mg/m ³	-
Quartz 14808-60-7	TWA: 0.05 mg/m ³	-	TWA: 0.08 mg/m ³	TWA: 0.025 mg/m ³

8.2. Exposure controls

Engineering controls

Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas. Use explosion-proof ventilating equipment.

Personal protective equipment [PPE]

Eye/face 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 eyes, skin and clothing. Take off all contaminated clothing and wash it 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 Liquid
Color	No information available
Odor	Slight
Odor Threshold	No information available

Property

Values

Remarks • Method

pH	No information available	
Melting point / freezing point	No data available	
Boiling point / boiling range	100 °C / 212 °F	
Flash Point	> 100 °C / > 212 °F	
Evaporation Rate	1.0	

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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	Dispersible
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
<u>9.2. Other information</u>	
Softening Point	No information available
Molecular Weight	No information available
Solvent content (%)	No information available
Solid content (%)	No information available
Density	No information available
VOC (volatile organic compound)	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

None under normal use conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Keep from freezing.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide (CO₂). Hydrocarbons.

Section 11: TOXICOLOGY INFORMATION

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11.1. Information on toxicological effects

Product Information	No data available
Inhalation	Based on available data, the classification criteria are not met.
Eye contact	Severely irritating to eyes.
Skin contact	Irritating to skin.
Ingestion	Based on available data, the classification criteria are not met.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Limestone 1317-65-3	>5000 mg/kg (rat)	-	-
Quartz 14808-60-7	>2000 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	Irritating to skin.
Serious eye damage/eye irritation	Severe eye irritation.
Irritation	No information available.
Corrosivity	No information available.
Sensitization	No information available.
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	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen. As Quartz (14808-60-7) 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
Quartz 14808-60-7	A2	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

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

X - Present

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

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Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Limestone 1317-65-3	CE50 (72h) >200mg/L Algae (Desmondosmus subspicatus)	CL50 (96h)>10000mg/L Fish (Oncorhynchus mykiss)		CE50 (48h) >1000 mg/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

Note:

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments made in non-bulk packages (see regulatory definition)
The information shown here, may not always agree with the bill of lading shipping description for the material
49 CFR 171.4(c) "Exceptions. Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicle, rail car or aircraft."

DOT

UN/ID No	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
Special Provisions	8, 146, 173, 335, IB3, T4, TP1, TP29
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s.(Silver,Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates), 9, III, Marine Pollutant
Emergency Response Guide Number	171

IATA

UN Number	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9

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Packing Group	III
ERG Code	9L
Special Provisions	A97, A158, A197
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s.(Silver,Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates), 9, III

IMDG

UN Number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing Group	III
EmS-No.	F-A, S-F
Special Provisions	274, 335, 969
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Silver,Quaternary ammonium compounds, ethyldimethylsoya alkyl, Et sulfates), 9, III, Marine Pollutant

Section 15: REGULATORY INFORMATION

Global Inventories

TSCA	Listed
DSL	Not 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)

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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

Revision Date	03-May-2019
Revision note	Not applicable.
Training Advice	No information available
Further information	No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet