

Material Safety Data Sheet

Product: *Bioni Roof*

Date of Publication: January 1st 2010

Page: 1/7

MSDS-No.: BR-US-2010-2-2

1. Product and Company Identification

Product Name:

Bioni Roof

Manufacturer:

Bioni CS GmbH
Lessingstr. 21
D-46149 Oberhausen
Germany
Telephone: +49 208 6217553
Fax: +49 208 6217555

Distributor:

Bioni USA and Americas LLC
2236 72nd Avenue East
Sarasota, FL 34243
USA
Telephone: (941) 926-5881
Fax: (941) 296-7423

Emergency Telephone Numbers:

Giftnotruf Berlin (24 hours / support in German and English)
Telephone: +49 030 30686790

2. Composition / Information on Ingredients

Chemical Nature of the preparation:

Acrylic copolymer emulsion with Nanotechnology

Hazardous Components:

Ingredient	CAS Number	Weight %	Occupational Exposure Limits		
			OSHA PEL	NIOSH REL	ACGIH TLV
Silver	7440-22-4	< 1%	0.01 mg/m ³	0.01 mg/m ³	0.1 mg/m ³
Titanium Dioxide	13463-67-7	< 20%	15 mg/m ³ **		10 mg/m ³ *

*: as Dust **: Total Dust

OSHA: Occupational Safety and Health Administration (US Dept. of Labour)

NIOSH: National Institute for Occupational Safety and Health

ACGIH: American Conference of Governmental Industrial Hygienists

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

TLV: Threshold Limit Value

3. Hazards Identification

Routes of Exposure

INHALATION of vapor or spray mist.

EYE and Skin contact with the products, vapor or spray mist.

Effects of Exposure

EYES: Irritation

SKIN: Prolonged or repeated exposure may cause skin irritation.

INHALATION: Inhalation of vapors may cause respiratory tract irritation.

INGESTION: Although ingestion is not considered a significant route of exposure, this material may cause gastrointestinal irritation if ingested.

Material Safety Data Sheet

Product: *Bioni Roof*

Date of Publication: January 1st 2010

Page: 2/7

MSDS-No.: BR-US-2010-2-2

4. First Aid Measures

General Information

In all cases of doubt, or when symptoms persist, seek medical advice and show this Safety Data Sheet.

Inhalation

If affected, remove from exposure and seek medical advice.

Skin

Wash skin with soap and plenty of water. Get medical attention if symptoms occur.

Eyes

Flush eyes with large amounts of water for 15 minutes. Get medical attention.

Ingestion

If swallowed, seek medical advice immediately. Do not induce vomiting.

5. Fire Fighting Measures

Flash Point

No Data

Suitable extinguishing media

Use Water fog (or if unavailable fine water spray), alcohol foam, dry agent (carbon dioxide, dry chemical powder).

Protection of Firefighters

Wear positive-pressure self-contained breathing apparatus and protective fire fighting clothing.

6. Accidental Release Measures

Personal Precautions

Wear adequate personal protective equipment (see section 8).

Environmental Precautions

Do not allow to enter drains or watercourses.

If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

Methods of Cleaning Up

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).

7. Handling and Storage

Handling

Keep area ventilated. Avoid contact with eyes, skin and clothing. For personal protection see Section 8.

Material Safety Data Sheet

Product: *Bioni Roof*

Date of Publication: January 1st 2010

Page: 3/7

MSDS-No.: BR-US-2010-2-2

7. Handling and Storage (cont'd)

Storage

Keep container tightly closed when not in use. Store in cool, frost-free, dry and well-ventilated place away from sources of heat and combustible materials. Keep out of reach of children.

Hygiene Practices

Wash thoroughly after handling. Avoid contact with eyes and skin.

8. Exposure Controls / Personal Protection

Occupational Exposure Limits

This product may contain materials classified as nuisance particulates which may be present at hazardous levels only during sanding or abrading of the dried coating film. The applicable limits for nuisance dusts are:

Ingredient	CAS Number	Weight %	Occupational Exposure Limits		
			OSHA PEL 8-hour TWA	NIOSH REL 10-hour TWA	ACGIH TLV 8-hour TWA
Silver	7440-22-4	< 1%	0.01 mg/m ³	0.01 mg/m ³	0.1 mg/m ³
Titanium Dioxide	13463-67-7	< 20%	15 mg/m ³		10 mg/m ³

Engineering controls and hygienic practices

Ensure adequate ventilation and avoid breathing vapor and spray mist. Avoid contact with skin and eyes.

Remove contaminated clothing.

When using do not eat, drink and smoke.

Wash hands after using.

Handle in accordance with good industrial hygiene and safety practice.

Personal protective Equipment:

Respiratory System

Not required in case of sufficient ventilation. When sanding or abrading the dried paint film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying coatings, or the abrasive.

Hand Protection

Use chemical resistant gloves.

Eye Protection

If there is a risk of eye contact wear safety spectacles with unperforated sideshields.

Skin and Body Protection

Use protective clothing.

Material Safety Data Sheet

Product: *Bioni Roof*

Date of Publication: January 1st 2010

Page: 4/7

MSDS-No.: BR-US-2010-2-2

9. Physical and Chemical Properties

Form:	liquid
Colour:	white
Odour:	almost odourless
Flash Point:	no data
Specific Gravity at 20°C:	1.20 g/cm ³
Water Solubility:	Miscible with water
pH:	8.5 - 9.5
VOC content:	< 25 g/l

10. Stability and Reactivity

Chemical Stability

Stable under normal conditions of use.

Conditions to Avoid

Heat, flames, incompatible materials and freezing temperatures below 0°C (32 °F).

Materials to avoid

Stable under recommended storage and handling conditions (see section 7).

Hazardous Decomposition Products

None known under normal conditions of storage and use.

11. Toxicological Information

Silver is not listed as a human carcinogen by IARC, NTP, OSHA or ACGIH. Inhalation of high amounts of metallic silver vapours may cause lung damage with pulmonary oedema. Repeated long-term exposure to silver dust may cause a grey-blue discoloration of the eyes, nose, throat and skin (argyria/argyrosis).

Rats exposed to *Titanium Dioxide* dust at 250 mg/m³ developed lung cancer. Such exposure levels are not attainable in the workplace. If the product is handled in accordance with this Safety Data Sheet and the product label no adverse health effects are expected. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Skin Contact

Contact with skin may result in irritation.

Eye Contact

May be an eye irritant.

Inhalation

No adverse effects expected.

Ingestion

No adverse effects expected.

Toxicological Data

No LD50 data available for the product.

Material Safety Data Sheet

Product: *Bioni Roof*

Date of Publication: January 1st 2010

Page: 5/7

MSDS-No.: BR-US-2010-2-2

12. Ecological Information

Do not allow to enter drains or watercourses.

Silver may be hazardous to the environment; special attention should be given to aquatic organisms.

13. Disposal Considerations

Product

Recommendation:

Do not allow to enter drains or watercourses.

Handle disposal of waste material in manner which complies to local, state, province and federal laws and regulations.

Packaging

Recommendation:

Dispose according to local regulations.

14. Transport Information

DOT Hazard Classification: No

IMO/IMDG (Sea) and IATA/ICAO (Air): NON-DANGEROUS GOOD

15. Regulatory Information

TSCA (Toxic Substances Control Act) Certification

TSCA Inventory:

All chemicals in this products are listed, or are exempt from listing, on the TSCA INVENTORY.

SARA (Superfund Amendments and Reauthorization Act of 1986)

TITLE III Section 302

Extremely Hazardous Substances (EHSs) / 40 CFR Part 355:

There are no components present in this product at a level which could require reporting under the statute.

CERCLA (Comprehensive Environmental Response Compensation and Liability Act of 1980)

Hazardous Substances / 40 CFR Part 302.4:

Following Chemicals in this product are listed: Silver

Releases in quantities equal or greater than Reportable Quantity (RQ):

There are no components present in this product at a level which could require reporting under the statute.

Material Safety Data Sheet

Product: *Bioni Roof*

Date of Publication: January 1st 2010

Page: 6/7

MSDS-No.: BR-US-2010-2-2

15. Regulatory Information (cont'd)

EPCRA (Emergency Planning and Community Right-to-Know Act) Section 313 *Toxic Chemical Release / 40 CFR Part 372:*

Following Chemicals in this product are listed: Silver (CAS 7740-22-4)
The concentration of Silver in this product is lower than the "De Minimis Concentration" of 1%.

There are no components present in this product at a level which could require reporting under the statute.

EPCRA (Emergency Planning and Community Right-to-Know Act) Section 311/312 *Hazardous Chemical Storage Reporting Requirements / 40 CFR Part 370:*

Hazard Category Compensation For Reporting Under Sections 311 and 312 (for this product):

Fire Hazard:	No
Sudden Release of Pressure:	No
Reactive:	No
Immediate (Acute) Health Hazards:	No
Delayed (Chronic) Health Hazard:	No

OSHA (Occupational Safety and Health Standard)

Toxic and Hazardous Substances/ 29 CFR Part 1910 Subpart Z:

Following Chemicals in this product are listed:

Silver (CAS 7740-22-4): 0.01 mg/m³

Titanium Dioxide (CAS 13463-67-7): (15 mg/m³) Total Dust

CLEAN WATER ACT

Silver (CAS 7740-22-4) is listed as a PRIORITY POLLUTANT and as TOXIC POLLUTANT under the Clean Water Act (CWA).

CLEAN AIR ACT - CAA Section 112(r)

Toxic and Flammable Substances / 40 CFR 68.130

There are no components present in this product listed.

STATE-RIGHT-TO-KNOW:

California Proposition 65

This product contains no "CHEMICALS KNOWN TO THE STATE TO CAUSE CANCER OR REPRODUCTIVE TOXICITY".

Massachusetts Right to Know Substance List (MSL) (105 CMR Section 670.000)

There are no components present in this product at a level which could require reporting under the statute.

Pennsylvania Right to Know Hazardous Substance List

Following Chemicals in this product are listed: Silver (CAS 7740-22-4)
Silver is part of the ENVIRONMENTAL Hazard list.

Material Safety Data Sheet

Product: *Bioni Roof*

Date of Publication: January 1st 2010

Page: 7/7

MSDS-No.: BR-US-2010-2-2

15. Regulatory Information (cont'd)

**California SCAQMD (South Coast Air Quality Management District)
Rule 443.1: VOC's (Volatilitic Organic Compounds)**

This product contains < 1% by weight VOC.

CANADA

DSL (Domestic Substances List)

All chemicals in this products are listed on the DSL.

WHMIS (Workplace Hazardous Materials Information System)

Ingredient Disclosure List

Following Chemicals in this product are listed: Silver (CAS 7740-22-4)
Disclosure at 1,0% according to the ingredient disclosure list. The
concentration of Silver in this product is lower than the 1%.

There are no components present in this product at a level which could
require reporting under the statute.

NPRI (National Pollutant Release Inventory)

Following Chemicals in this product are listed: Silver (CAS 7740-22-4)

16. Other Information

The information in this MSDS was obtained from sources which we believe
are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY,
EXPRESSED OR IMPLIED, REGARDING ITS CORRECTNESS.

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