MATRIX BIOLAGE

SAFETY DATA SHEET

1. Identification

Product identifier BIOLAGE BOND THERAPHY BOND FIX PRE-TREATMENT

Other means of identification

SDS number 00-12-0001348

Recommended use Personal care product used for cosmetic effect.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

US Address: L'Oreal USA Products, Inc

> 133 Terminal Avenue Clark, NJ 07066

USA

Canadian Address: L'Oreal Canada

4895 rue Hickmore

Ville St-Laurent, H4T 1K5

Canada

Emergency Phone #: 1-800-535-5053 (International: 352-323-3500)

In Canada - 1-613-996-6666 (Canutec (*666 Cellular))

For further Information: 1-732-499-2741

412-390-3326 Poison Control #:

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Serious eye damage/eye irritation

> Specific target organ toxicity, repeated Category 2

Category 1

exposure

OSHA defined hazards Not classified.

Label elements





Signal word Danger

Hazard statement Causes serious eye damage. May cause damage to organs through prolonged or repeated

exposure.

Precautionary statement

Prevention Do not breathe mist/vapors. Wear eye protection/face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and Response

easy to do. Continue rinsing. Immediately call a poison center/doctor.

Storage Store away from incompatible materials.

Dispose of contents/container in accordance with local/regional/national/international regulations. **Disposal**

Hazard(s) not otherwise

classified (HNOC)

None known.

Material name: BIOLAGE BOND THERAPHY BOND FIX PRE-TREATMENT

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3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|-------------------------|--------------------------|------------|------|
| GLYCERIN | | 56-81-5 | 5 |
| BEHENTRIMONIUM CHLORIDE | | 68607-24-9 | 3.56 |
| CITRIC ACID | | 77-92-9 | 1.6 |

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Symptoms may be delayed.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important

symptoms/effects, acute and delayed

Indication of immediate medical attention and special

medical attention and special treatment needed

General information

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Prolonged exposure may cause

chronic effects.

Provide general supportive measures and treat symptomatically. Keep victim under observation.

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from D

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Move containers from fire area if you can do so without risk.

Fire fighting equipment/instructions

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions 7. Handling and storage

Precautions for safe handling

Do not breathe mist/vapors. Do not get this material in contact with eyes. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe

SDS US

good industrial hygiene practices.

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Store in tightly closed container. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

| US. OSHA Table Z-1 Limits for Air Contar Components | ninants (29 CFR 1910.1000) Type | Value | Form |
|---|------------------------------------|----------|----------------------|
| GLYCERIN (CAS 56-81-5) | PEL | 5 mg/m3 | Respirable fraction. |
| | | 15 mg/m3 | Total dust. |
| US. OSHA Table Z-3 (29 CFR 1910.1000) Components | Туре | Value | Form |
| GLYCERIN (CAS 56-81-5) | TWA | 5 mg/m3 | Respirable fraction. |
| | | 15 mg/m3 | Total dust. |
| | | 50 mppcf | Total dust. |

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

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

15 mppcf

Respirable fraction.

Individual protection measures, such as personal protective equipment

Eye/face protection Applicable for industrial settings only. Chemical respirator with organic vapor cartridge and full

facepiece.

Skin protection

Hand protection Applicable for industrial settings only. Wear appropriate chemical resistant gloves.

Other Applicable for industrial settings only. Wear appropriate chemical resistant clothing. Use of an

impervious apron is recommended.

Respiratory protection Applicable for industrial settings only. Chemical respirator with organic vapor cartridge and full

facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene Always observe good personal hygiene measures, such as washing after handling the material considerations and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state
Color
Not available.

Odor
Characteristic.

Odor threshold
Not available.

PH
3.5 - 4.5

Melting point/freezing point
Not available.

Initial boiling point and boiling

range

> 212 °F (> 100 °C)

Flash point > 199.4 °F (> 93.0 °C) Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

Not available.

(%)

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Explosive limit - lower (%) Not available. Not available. Explosive limit - upper (%) Not available. Vapor pressure Vapor density Not available.

Relative density Solubility(ies)

Solubility (water) Not available. Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature Not available. Not available. **Decomposition temperature Viscosity** Not available.

Other information

 $>= 0.97 \text{ g/cm}^3$ Density Not explosive. **Explosive properties** Oxidizing properties Not oxidizing.

10. Stability and reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport. Reactivity

Chemical stability Material is stable under normal conditions.

Not available.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid Conditions to avoid

temperatures exceeding the flash point. Contact with incompatible materials.

Strong oxidizing agents. Incompatible materials

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contact No adverse effects due to skin contact are expected.

Eye contact Causes serious eye damage.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred

vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Not known. Acute toxicity

Product Test Results Species

BIOLAGE BOND THERAPHY BOND FIX PRE-TREATMENT

Acute Dermal

ATEmix 70470 mg/kg

Oral

ATEmix 43800 mg/kg

Components **Species Test Results**

BEHENTRIMONIUM CHLORIDE (CAS 68607-24-9)

Acute

Oral

LD50 Rat 3190 mg/kg OECD 401

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Components Species Test Results

CITRIC ACID (CAS 77-92-9)

<u>Acute</u>

Dermal

LD50 Rat > 2000 mg/kg bw OECD 402

Oral

LD50 Mouse 5400 mg/kg bw OECD 401

GLYCERIN (CAS 56-81-5)

<u>Acute</u>

Dermal

LD50 Rabbit > 18700 mg/kg bw

Inhalation

LC50 Rat > 570 mg/L air, 1 h

Oral

LD50 Rat 27200 mg/kg bw

Skin corrosion/irritation No adverse effects due to skin contact are expected.

Irritation Corrosion - Skin

CITRIC ACID OECD 404

Result: Slightly Irritating Species: Rabbit

BEHENTRIMONIUM CHLORIDE 0ECD 405

Result: Irritating Species: Rabbit

GLYCERIN Result: Not Irritating

Species: Rabbit

Serious eye damage/eye

irritation

Causes serious eye damage.

Irritation Corrosion - Eye

BEHENTRIMONIUM CHLORIDE OECD 404

Result: Corrosive Species: Rabbit

CITRIC ACID OECD 405

Result: Irritating Species: Rabbit

GLYCERIN Result: Not Irritating Species: Rabbit

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Skin sensitization

GLYCERIN 167 mg/m3 air OECD 413, Inhalation

Result: NOAEL Species: Rat Test Duration: 90 d

BEHENTRIMONIUM CHLORIDE OECD 406

Result: Not Sensitizing Species: Guinea pig

CITRIC ACID OECD 406

Result: Not Sensiziting Species: Guinea pig

GLYCERIN Result: Not Sensitizing

Species: Guinea pig

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Mutagenicity

CITRIC ACID Result: In vitro and in vivo tests did not show mutagenic

effects.

GLYCERIN Result: In vitro and in vivo tests did not show mutagenic

effects.

BEHENTRIMONIUM CHLORIDE Result: In vitro tests did not show mutagenic effects

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Developmental effects

CITRIC ACID > 295 mg/kg bw/d, No effects on development

Result: NOAEL Species: Rat

GLYCERIN 1310 mg/kg bw/d, No effects on development

Result: NOAEL Species: Rat

Reproductivity

GLYCERIN 2000 mg/kg bw/d, No effects on fertility

Result: NOAEL Species: Rat

CITRIC ACID 2500 mg/kg bw/d, No effects on fertility

Result: NOAEL Species: Rat

BEHENTRIMONIUM CHLORIDE 75 mg/kg bw/d OECD 421

Result: NOAEL Species: Rat

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity - May cause damage to organs through prolonged or repeated exposure.

repeated exposure

BEHENTRIMONIUM CHLORIDE 10 mg/kg bw/d OECD 407, Oral

Result: NOAEL Species: Rat Test Duration: 28 d 4000 mg/kg bw/d, Or

CITRIC ACID 4000 mg/kg bw/d, Oral Result: NOAEL

Species: Rat Test Duration: 10 d 8000 mg/kg bw/d, Oral

GLYCERIN 8000 mg/kg bw/d, 0
Result: NOAEL
Species: Rat

Test Duration: 2 yr

Aspiration hazard Not an aspiration hazard.

Chronic effects May cause damage to organs through prolonged or repeated exposure.

Further information The reference to any animal testing for individual constituents mentioned in this document is

based on public, third-party data.

12. Ecological information

EcotoxicityThe product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components Species Test Results

BEHENTRIMONIUM CHLORIDE (CAS 68607-24-9)

Aquatic

Acute

Algae EC50 Desmodesmus subspicatus 3.48 mg/l, 72 h OECD 201 Crustacea EC50 Daphnia magna 1.39 mg/l, 48 h OECD 202 Danio rerio Fish LC50 0.5 - 1 mg/l, 96 h OECD 203 Other EC50 Activated sludge of a predominantly 43 mg/l, 3 h OECD 209

domestic sewage

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| Components | | Species | Test Results |
|--------------------|---------|-------------------------|-------------------------------|
| Chronic | | | |
| Crustacea | NOEC | Daphnia magna | 0.128 mg/l, 21 d OECD 211 |
| Fish | NOEC | Danio rerio | 0.24 mg/l, 9 d OECD 212 |
| CITRIC ACID (CAS 7 | 7-92-9) | | |
| Aquatic | | | |
| Algae | EC50 | Microcystis aeruginosa | 80 mg/l, 7 d |
| Crustacea | LC50 | Daphnia magna | 1535 mg/l, 24 h |
| Fish | LC50 | Leuciscus idus | 440 - 760 mg/l, 96 h OECD 203 |
| Other | EC50 | Pseudomonas putida | 4235 mg/l, 18 h OECD 209 |
| GLYCERIN (CAS 56-8 | 81-5) | | |
| Aquatic | | | |
| Acute | | | |
| Algae | EC0 | Scenedesmus quadricauda | > 10000 mg/l, 192 h |
| Crustacea | EC50 | Daphnia magna | 1955 mg/l, 48 h |
| Fish | LC50 | Oncorhynchus mykiss | 54000 mg/l, 96 h |
| Other | NOEC | Pseudomonas putida | > 10000 mg/l, 16 h |
| | | | |

Persistence and degradability

CITRIC ACID

Biodegradability

Percent degradation (Aerobic biodegradation)

BEHENTRIMONIUM CHLORIDE 80 % OECD 301

Result: Readily Biodegradable

Test Duration: 28 d 97 % OECD 301 B Test Duration: 28 d

GLYCERIN OECD 301

Result: Readily Biodegradable

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

CITRIC ACID -1.64
GLYCERIN -1.76

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Waste from residues / unused

products

Dispose in accordance with all applicable regulations.

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

DOT

FINISHED GOODS

Not regulated as dangerous goods.

BULK

Not regulated as dangerous goods.

IATA

FINISHED GOODS

Not regulated as dangerous goods.

BULK

Not regulated as dangerous goods.

IMDG

FINISHED GOODS

Not regulated as dangerous goods.

BULK

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

No (Exempt)

Not regulated.

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

Not regulated.

Safe Drinking Water Act

(SDWA)

Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

GLYCERIN (CAS 56-81-5) Other Flavoring Substances with OSHA PEL's

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

Issue date 12-12-2022

Version # 01

NFPA ratings Health: 3

Flammability: 1 Instability: 0

The information provided in this Safety Data Sheet is correct to the best of our knowledge, Disclaimer

> 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.

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