



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation of Hazardous Chemical Agents (HCA)

Revision date 12-Feb-2025

Revision Number 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product Name DEN BRAVEN HIGH TACK

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Adhesives and/or sealants.

Restrictions on use No information available

Supplier's details

Supplier

Bostik South Africa
1 Beverley Close
Montague Gardens
Cape Town
South Africa
7441
Tel: +27 21 555 7400

Non-Emergency Telephone Number+27 21 555 7400

E-mail address psra.za@bostik.com

Emergency telephone number

Emergency Telephone Tel: +27 21 555 7400

Restrictions on emergency number 8am - 5pm (Monday - Friday)

SECTION 2: Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonised System (GHS)

GHS Label elements, including precautionary statements

Hazard statements

Not a hazardous substance or mixture according to the Globally Harmonised System (GHS).

Other hazards which do not result in classification

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

SECTION 3: Composition/information on ingredients

SAFETY DATA SHEET

DEN BRAVEN HIGH TACK

Revision date 12-Feb-2025

Substance

Not applicable

Mixture

| Chemical name | CAS No. | Weight-% |
|--|-----------|----------|
| Trimethoxyvinylsilane | 2768-02-7 | 1 - <3 |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine | 1760-24-3 | 0.1 - <1 |
| N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine | 3069-29-2 | 0.1 - <1 |

SECTION 4: First aid measures

Description of necessary first aid measures

| | |
|-----------------------|--|
| General advice | Show this safety data sheet to the doctor in attendance. If medical advice is needed, have product container or label at hand. |
| Inhalation | Remove to fresh air. If symptoms persist, call a doctor. |
| Skin contact | Wash with soap and water. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Ingestion | Small amounts of toxic methanol are released by hydrolysis. Call a doctor immediately. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. |

Most important symptoms and effects, both acute and delayed

| | |
|----------------------------|---------------------------|
| Symptoms | None known. |
| Effects of Exposure | No information available. |

Indication of immediate medical attention and special treatment needed, if necessary

| | |
|------------------------|--|
| Note to doctors | Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released, when the product is exposed to moisture or water. Treat symptomatically. |
|------------------------|--|

SECTION 5: Firefighting measures

| | |
|---|---|
| Suitable Extinguishing Media | Water spray, carbon dioxide (CO ₂), dry chemical, alcohol-resistant foam. |
| Unsuitable extinguishing media | Full water jet. |
| Specific hazards arising from the chemical | Thermal decomposition can lead to release of irritating gases and vapours. |
| Hazardous combustion products | Carbon oxides. Carbon monoxide. Carbon dioxide (CO ₂). Nitrogen oxides (NO _x). Silicon dioxide. |
| Special protective actions for fire-fighters | Wear self contained breathing apparatus for fire fighting if necessary. |

SECTION 6: Accidental release measures

SAFETY DATA SHEET

DEN BRAVEN HIGH TACK

Revision date 12-Feb-2025

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

Environmental precautions

Environmental precautions Prevent product from entering drains. Do not allow to enter into soil/subsoil. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for cleaning up Pick up and transfer to properly labelled containers.

Methods for containment Do not scatter spilled material with high pressure water streams.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Protect from moisture. Keep away from food, drink and animal feedingstuffs.

Recommended storage temperature Keep at temperatures between 10 and 35 °C.

Incompatible materials None known based on information supplied.

SECTION 8: Exposure controls/personal protection

Working area parameters, subject to mandatory control (MAC or TSEL)

Occupational exposure limits Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. This product contains substances which in their raw state are powder form, however in 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 | Occupational exposure limits | Restricted exposure limits |
|---------------------------|------------------------------|--------------------------------------|
| Methyl alcohol 67-56-1 | | TWA: 400 ppm STEL: 500 ppm Sk* |

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls Showers

SAFETY DATA SHEET

DEN BRAVEN HIGH TACK

Revision date 12-Feb-2025

Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | |
|------------------------|------------------------------------|
| Appearance | Paste |
| Physical state | Solid |
| Colour | See section 1 for more information |
| Odour | Characteristic |
| Odour threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---|----------------------------|-----------------------------|
| pH | No data available | Not applicable |
| pH (as aqueous solution) | No data available | No information available |
| Melting point / freezing point | No data available | No information available |
| Initial boiling point and boiling range | No data available | No information available |
| Flash point | > 60 °C / 140 °F | |
| Evaporation rate | No data available | No information available |
| Flammability | No data available | No information available |
| Upper/lower flammability or explosive limits | | |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapour pressure | No data available | No information available |
| Relative vapour density | No data available | No information available |
| Relative density | No data available | No information available |
| Solubility(ies) | | |
| Water solubility | Reacts with water moisture | Product cures with moisture |
| Solubility in other solvents | No data available | No information available |
| Partition coefficient | No data available | No information available |
| Autoignition temperature | No data available | No information available |
| Decomposition temperature | No data available | No information available |
| Kinematic viscosity | 21 mm ² /s | |
| Dynamic viscosity | No data available | No information available |

Other information

| | |
|-----------------------------|--------------------------|
| Explosive properties | No information available |
| Oxidising properties | No information available |
| Liquid Density | 1.54 |

SECTION 10: Stability and reactivity

Reactivity Product cures with moisture.

SAFETY DATA SHEET

DEN BRAVEN HIGH TACK

Revision date 12-Feb-2025

| | |
|------------------------------------|--|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to avoid | Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. Product cures with moisture. |
| Incompatible materials | None known based on information supplied. |
| Hazardous decomposition products | Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. |

SECTION 11: Toxicological information

Information on the likely routes of exposure

Product Information

| | |
|--------------|---|
| Inhalation | Specific test data for the substance or mixture is not available. |
| Eye contact | Specific test data for the substance or mixture is not available. |
| Skin contact | Based on available data, the classification criteria are not met. May cause sensitisation in susceptible persons. |
| Ingestion | Specific test data for the substance or mixture is not available. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

| | |
|-------------------------------|-------------|
| ATEmix (oral) | >5000 mg/kg |
| ATEmix (dermal) | >5000 mg/kg |
| ATEmix (inhalation-gas) | >20000 ppm |
| ATEmix (inhalation-vapour) | 456.60 mg/l |
| ATEmix (inhalation-dust/mist) | >5 mg/l |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|--|---|
| Trimethoxyvinylsilane | LD50 = 7120 -7236 mg/kg (Rattus) OECD 401 | = 3540 mg/kg (Oryctolagus cuniculus) | LC50 (4hr) 16.8 mg/l (Rattus) OECD TG 403 |
| N-(3-(trimethoxysilyl)propyl)ethylene diamine | =2295 mg/kg (Rattus) | >2000 mg/Kg (Rattus) | LC50 4H (Aerosol)1.5 - 2.44 mg/L air |
| N-[3-(Dimethoxymethylsilyl)propyl]-ethylene diamine | =200 - 2000 mg/Kg (Rattus) (OECD 401) | >5000 mg/Kg (Oryctolagus cuniculus) (OECD 402) | > 5.2 mg/L (Rattus) 4 h (OECD 403) |

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

| | |
|---------------------------|---------------------------|
| Skin corrosion/irritation | No information available. |
|---------------------------|---------------------------|

| Trimethoxyvinylsilane (2768-02-7) | | | | | |
|-----------------------------------|---------|----------------|----------------|---------------|--------------|
| Method | Species | Exposure route | Effective dose | Exposure time | Results |
| | Rabbit | Dermal | 0.5 mL | 24 hours | Non-irritant |

SAFETY DATA SHEET

DEN BRAVEN HIGH TACK

Revision date 12-Feb-2025

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | | | | | |
|--|---------|----------------|----------------|---------------|--------------------|
| Method | Species | Exposure route | Effective dose | Exposure time | Results |
| OECD Test No. 404: Acute Dermal Irritation/Corrosion | Rabbit | | | | Mild skin irritant |

Serious eye damage/eye irritation No information available.

| Trimethoxyvinylsilane (2768-02-7) | | | | | |
|---|---------|----------------|----------------|---------------|--------------|
| Method | Species | Exposure route | Effective dose | Exposure time | Results |
| OECD Test No. 405: Acute Eye Irritation/Corrosion | Rabbit | eye | | 24 hours | Non-irritant |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | | | | | |
|--|---------|----------------|----------------|---------------|------------|
| Method | Species | Exposure route | Effective dose | Exposure time | Results |
| OECD Test No. 405: Acute Eye Irritation/Corrosion | Rabbit | eye | | | Eye Damage |

Respiratory or skin sensitisation OECD Test No. 406: Skin Sensitisation. No sensitisation responses were observed. No classification is proposed, based on conclusive negative data. May cause sensitisation in susceptible persons.

| Method | Species | Exposure route | Results |
|--|------------|----------------|---|
| OECD Test No. 406: Skin Sensitisation | Guinea pig | Dermal | No sensitisation responses were observed |

Germ cell mutagenicity No information available.

| Trimethoxyvinylsilane (2768-02-7) | | |
|---|----------|---------------|
| Method | Species | Results |
| OECD Test No. 471: Bacterial Reverse Mutation Test | in vitro | Not mutagenic |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | | |
|--|--------------------------|----------|
| Method | Species | Results |
| OECD Test No. 471: Bacterial Reverse Mutation Test | Mammalian cells in vitro | Negative |
| OECD Test No. 476: In Vitro Mammalian Cell Gene Mutation Tests using the Hprt and xprt genes | Mammalian cells in vitro | Negative |

Carcinogenicity No information available.

Reproductive toxicity No information available.

| Trimethoxyvinylsilane (2768-02-7) | | |
|---|---------|------------------|
| Method | Species | Results |
| OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test | Rat | Not Classifiable |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | | | | | |
|--|--|--|--|--|--|
|--|--|--|--|--|--|

SAFETY DATA SHEET

DEN BRAVEN HIGH TACK

Revision date 12-Feb-2025

| Method | Species | Results |
|--|-------------|------------------|
| OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test | Rat Oral | NOAEL >500 mg/Kg |

STOT - single exposure No information available.

STOT - repeated exposure No information available.

| Trimethoxyvinylsilane (2768-02-7) | | | | | |
|--|---------|-------------------|----------------|---------------|-------------|
| Method | Species | Exposure route | Effective dose | Exposure time | Results |
| OECD Test No. 413: Sub-chronic Inhalation Toxicity: 90-day Study | Rat | Inhalation vapour | | 90 days | 0.058 NOAEL |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | | | | | |
|--|---------|--------------------------------|----------------|---------------|------------------|
| Method | Species | Exposure route | Effective dose | Exposure time | Results |
| OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test | Rat | Sub-acute oral toxicity gavage | | 28 days | NOAEL >500 mg/kg |

Aspiration hazard No information available.

SECTION 12: Ecological information

Ecotoxicity

| Chemical name | Algae/aquatic plants | Fish | Crustacea |
|---|---|---|---|
| Trimethoxyvinylsilane | 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) |
| N-(3-(trimethoxysilyl)propyl)ethylene diamine | - | LC50 (96H) =597 mg/L (Danio rerio)Semi-static | EC50 (48h) =81mg/L Daphnia magna Static |

Persistence and degradability No information available.

Trimethoxyvinylsilane (2768-02-7)

| Method | Exposure time | Value | Results |
|---|---------------|-------|--------------------------------|
| OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F) | 28 days | BOD | 51 % Not readily biodegradable |

Bioaccumulative potential

Component Information

| Chemical name | Partition coefficient |
|--|-----------------------|
| Trimethoxyvinylsilane | 1.1 |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine | -0.3 |

Mobility in soil No information available.

Other adverse effects No information available.

SAFETY DATA SHEET

DEN BRAVEN HIGH TACK

Revision date 12-Feb-2025

SECTION 13: Disposal considerations

Disposal methods

Waste from residues/unused products Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

Contaminated packaging Handle contaminated packages in the same way as the product itself.

SECTION 14: Transport information

IMDG Not regulated

IATA Not regulated

ADR Not regulated

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

South Africa - Occupational Injuries and Diseases - Chemical Agents Not applicable

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

Europe

Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:

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)

Directive 2011/65/EU (EU RoHS 2), as amended by the Delegated Directive (EU) 2015/863 (EU RoHS 3)

This product does not contain Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-Ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) above the regulated limit mentioned in this regulation

SECTION 16: Other information

Prepared By Product Safety & Regulatory Affairs
Revision date 12-Feb-2025
Revision Note No information available.

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

Legend SECTION 8: Exposure controls/personal protection

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | Sk* | Skin designation |

Key literature references and sources for data used to compile the SDS

SAFETY DATA SHEET

DEN BRAVEN HIGH TACK

Revision date 12-Feb-2025

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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