



SAFETY DATA SHEET

Brodi Odour Control Biological

According to WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR)

1. Identification

Product identifier

Product name Brodi Odour Control Biological

Product number 554

Recommended use of the chemical and restrictions on use

Restriction on use Odor Control (For Industrial Use Only)

Details of the supplier of the safety data sheet

Manufacturer Brodi Specialty Products Ltd.
3175 14th Avenue Unit 1
Markham, ON L3R 0H1, Canada
Tel: (905) 475 6084
Fax: (905)475-6075

Emergency telephone number

National emergency telephone number CANUTEC 613-996-6666

2. Hazard identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Environmental hazards Not Classified

Label elements

Pictogram



Signal word Danger

Hazard statements H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary statements P264 Wash contaminated skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/ doctor.
P321 Specific treatment (see medical advice on this label).
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

Contains sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts



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Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

| | |
|---|--------|
| sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS number: 68439-57-6 | 10-30% |
| 2-methylpentane-2,4-diol CAS number: 107-41-5 | <1% |
| sulphuric acid 91% CAS number: 7664-93-9 | <1% |
| isopentyl acetate CAS number: 123-92-2 | <1% |
| phenoxybenzene CAS number: 101-84-8 | <1% |
| citral CAS number: 5392-40-5 | <1% |
| 3-methylbutan-1-ol CAS number: 123-51-3 | <1% |
| benzyl acetate CAS number: 140-11-4 | <1% |
| 4,7,7-trimethylbicyclo[4.1.0]hept-3-ene CAS number: 13466-78-9 | <1% |

4. First-aid measures

Description of first aid measures

| | |
|---------------------|---|
| General information | Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel. |
| Inhalation | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist. |
| Ingestion | Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel. |



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| | |
|---|---|
| Skin contact | Rinse with water. |
| Eye contact | Rinse immediately with plenty of water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention. |
| Protection of first aiders | First aid personnel should wear appropriate protective equipment during any rescue. |
| Most important symptoms and effects, both acute and delayed | |
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | No specific symptoms known. |
| Ingestion | May cause irritation. |
| Skin contact | Redness. Irritating to skin. |
| Eye contact | Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness. |
| Indication of any immediate medical attention and special treatment needed | |
| Notes for the doctor | Treat symptomatically. |
| Specific treatments | No special treatment required. |

5. Fire-fighting measures

Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |

Specific hazards arising from the hazardous product

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| Hazardous combustion products | Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours. |
|-------------------------------|--|

Advice for firefighters

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| Protective actions during firefighting | Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. If risk of water pollution occurs, notify appropriate authorities. |
| Special protective equipment for firefighters | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing that provides a basic level of protection during chemical incidents is defined by the Canada Occupational Health and Safety Regulations, by provincial guidelines on occupational health and safety or by NFPA standards if applicable. |

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| | |
|----------------------|---|
| Personal precautions | Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. |
|----------------------|---|

Methods and material for containment and cleaning up



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| | |
|-----------------------------|---|
| Methods for cleaning up | Wear protective clothing as described in Section 8 of this safety data sheet. Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13. |
| Reference to other sections | |
| Reference to other sections | For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13. |

7. Handling and storage

Precautions for safe handling

| | |
|-------------------|--|
| Usage precautions | Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. |
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| Advice on general occupational hygiene | Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. |
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Conditions for safe storage, including any incompatibilities

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| Storage precautions | Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. |
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|---------------|-------------------|
| Storage class | Chemical storage. |
|---------------|-------------------|

Specific end use(s)

| | |
|---------------------|---|
| Specific end use(s) | The identified uses for this product are detailed in Section 1. |
|---------------------|---|

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

2-methylpentane-2,4-diol

Ceiling exposure limit: ACGIH 25 ppm 121 mg/m³

sulphuric acid 91%

Long-term exposure limit (8-hour TWA): ACGIH 0.2 mg/m³ thoracic fraction
A2

isopentyl acetate

Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 266 mg/m³

Short-term exposure limit (15-minute): ACGIH 100 ppm 532 mg/m³

phenoxybenzene

Long-term exposure limit (8-hour TWA): ACGIH 1 ppm 7 mg/m³ vapor

Short-term exposure limit (15-minute): ACGIH 2 ppm 14 mg/m³ vapor

citral

Long-term exposure limit (8-hour TWA): ACGIH 5 ppm 32 mg/m³ inhalable fraction and vapor
A4, DSens, Sk



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3-methylbutan-1-ol

Long-term exposure limit (8-hour TWA): ACGIH 100 ppm 361 mg/m³

Short-term exposure limit (15-minute): ACGIH 125 ppm 452 mg/m³

benzyl acetate

Long-term exposure limit (8-hour TWA): ACGIH 10 ppm 61 mg/m³

A4

4,7,7-trimethylbicyclo[4.1.0]hept-3-ene

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 112 mg/m³

A4, DSens

ACGIH = American Conference of Governmental Industrial Hygienists.

A2 = Suspected Human Carcinogen.

A4 = Not Classifiable as a Human Carcinogen.

DSens = Dermal sensitizer.

Sk = Danger of cutaneous absorption.

Exposure controls

Protective equipment



Appropriate engineering controls Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection Wear eye protection.

Hand protection Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacture, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.9), and any relevant provincial regulation relating to health and safety at work. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures Wash hands thoroughly after handling. Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. R95 Particulate Filtering or equivalent facepiece Respirators should comply with any relevant provincial regulation and/or provincial guidelines applicable to health and safety at work. Half mask and quarter mask respirators with replaceable filter cartridges should comply with the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work. Using an R95 approved particulate respirator is recommended.

Environmental exposure controls Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. Physical and Chemical Properties

Information on basic physical and chemical properties



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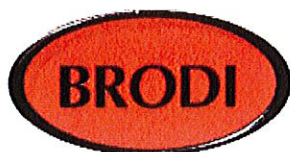
According to WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR)

| | |
|--|--|
| Appearance | Liquid. |
| Colour | Dark brown. |
| Odour | Characteristic. |
| Odour threshold | No information available. |
| pH | pH (concentrated solution): 3.00 - 5.00 |
| Melting point | No information available. |
| Initial boiling point and range | >100°C/>212°F |
| Flash point | > 95°C/203°F Closed cup. |
| Evaporation rate | < 1 (butyl acetate = 1) |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or explosive limits | No information available. |
| Vapour pressure | No information available. |
| Vapour density | >1 (Air/H ₂ =1) |
| Relative density | 1.05 - 1.10 @ 20°C/68°F |
| Solubility(ies) | Miscible with water. |
| Partition coefficient | No information available. |
| Auto-ignition temperature | No information available. |
| Decomposition Temperature | No information available. |
| Viscosity | Kinematic viscosity > 20.5 mm ² /s. |
| Other information | None. |

10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | There are no known reactivity hazards associated with this product. |
| Stability | Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions. |
| Possibility of hazardous reactions | No potentially hazardous reactions known. |
| Conditions to avoid | There are no known conditions that are likely to result in a hazardous situation. |
| Materials to avoid | No specific material or group of materials is likely to react with the product to produce a hazardous situation. |
| Hazardous decomposition products | Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours. |

11. Toxicological information



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According to WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR)

Information on toxicological effects

| | |
|---|---|
| Toxicological effects | Not regarded as a health hazard under current legislation. |
| <i>Acute toxicity - oral</i> | |
| Notes (oral LD ₅₀) | Based on available data the classification criteria are not met. |
| <i>Acute toxicity - dermal</i> | |
| Notes (dermal LD ₅₀) | Based on available data the classification criteria are not met. |
| <i>Acute toxicity - inhalation</i> | |
| Notes (inhalation LC ₅₀) | Based on available data the classification criteria are not met. |
| <i>Skin corrosion/irritation</i> | |
| Animal data | Irritating. |
| <i>Serious eye damage/irritation</i> | |
| Serious eye damage/irritation | Eye Dam. 1 - H318 Causes serious eye damage. |
| <i>Respiratory sensitization</i> | |
| Respiratory sensitization | Based on available data the classification criteria are not met. |
| <i>Skin sensitization</i> | |
| Skin sensitization | Based on available data the classification criteria are not met. |
| <i>Germ cell mutagenicity</i> | |
| Genotoxicity - in vitro | Based on available data the classification criteria are not met. |
| <i>Carcinogenicity</i> | |
| Carcinogenicity | Based on available data the classification criteria are not met. |
| <i>Reproductive toxicity</i> | |
| Reproductive toxicity - fertility | Based on available data the classification criteria are not met. |
| Reproductive toxicity - development | Based on available data the classification criteria are not met. |
| <i>Specific target organ toxicity - single exposure</i> | |
| STOT - single exposure | Not classified as a specific target organ toxicant after a single exposure. |
| <i>Specific target organ toxicity - repeated exposure</i> | |
| STOT - repeated exposure | Not classified as a specific target organ toxicant after repeated exposure. |
| <i>Aspiration hazard</i> | |
| Aspiration hazard | Based on available data the classification criteria are not met. |
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | No specific symptoms known. |
| Ingestion | May cause irritation. |
| Skin contact | Redness. Irritating to skin. |



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| | |
|------------------------|--|
| Eye contact | Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness. |
| Route of exposure | Ingestion Inhalation Skin and/or eye contact |
| Target organs | No specific target organs known. |
| Medical considerations | Skin disorders and allergies. |

12. Ecological Information

| | |
|-------------------------------|--|
| Ecotoxicity | Not regarded as dangerous for the environment. |
| Toxicity | Based on available data the classification criteria are not met. |
| Persistence and degradability | |
| Persistence and degradability | The degradability of the product is not known. |
| Bioaccumulative potential | |
| Bioaccumulative potential | No data available on bioaccumulation. |
| Partition coefficient | No information available. |
| Mobility in soil | |
| Mobility | No data available. |
| Other adverse effects | |
| Other adverse effects | None known. |

13. Disposal considerations

Waste treatment methods

| | |
|---------------------|--|
| General information | The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous. |
| Disposal methods | Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible. |

14. Transport information

| | |
|-------------------------|--|
| General | The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, TDG). |
| UN number | |
| UN No. (International) | Not applicable. |
| UN No. (DOT) | Not applicable. |
| UN proper shipping name | |

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Proper shipping name (International) Not applicable.

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)

Transport Labels (International) No transport warning sign required.

Transport labels

No transport warning sign required.

DOT transport label

Packing group

Packing group (International) Not applicable.

DOT packing group Not applicable.

Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

Special precautions for user

Not applicable.

DOT reportable quantity Not applicable.

DOT TIH Zone Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information*Inventories*

Canada – DSL/NDSL

All the ingredients are listed or exempt.

16. Other information



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| | |
|--|---|
| Abbreviations and acronyms used in the safety data sheet | <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. ATE: Acute Toxicity Estimate. CAS: Chemical Abstracts Service. cATpE: Converted Acute Toxicity Point Estimate. DNEL: Derived No Effect Level. GHS: Globally Harmonized System. IARC: International Agency for Research on Cancer. IATA: International Air Transport Association. ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. Kow: Octanol-water partition coefficient. LC₅₀: Lethal Concentration to 50 % of a test population. LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose). PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. SVHC: Substances of Very High Concern. UN: United Nations. TDG: Transportation of Dangerous Goods. UVCB - Unknown or variable composition, complex reaction products or Biological materials. vPvB: Very Persistent and Very Bioaccumulative.</p> |
| Training advice | Only trained personnel should use this material. |
| Revision date | 2019-10-10 |
| Revision | 2.2 |
| SDS number | 4829 |
| Hazard statements in full | <p>H315 Causes skin irritation.</p> <p>H318 Causes serious eye damage.</p> |
| Disclaimer - Brodi Specialty Products Ltd. | <p>This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.</p> |