

SAFETY DATA SHEET

1. Identification

Product identifier Brake Clean

Other means of identification

Product code 1000017019

Recommended use CLEANER

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Brodi Specialty Products

Address 3175 – 14th Avenue
Unit #1
Markham, ON L3R 0H1
Canada

Telephone 877-744-0751

E-mail Not available.

Emergency phone number Emergency - Outside US 1-952-852-4646
Emergency - US 1-866-836-8855

Supplier Not available.

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1

Health hazards Germ cell mutagenicity Category 1B
Carcinogenicity Category 1B
Aspiration hazard Category 1

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. May be fatal if swallowed and enters airways. May cause genetic defects. May cause cancer.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF exposed or concerned: Get medical advice/attention.

Storage

Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

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

Other hazards None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|-------------------------------------|--------------------------|------------|--------|
| Naphtha (petroleum), Light Alkylate | | 64741-66-8 | 72.677 |
| Methylene Chloride | | 75-09-2 | 18.991 |

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|-------|
| Acetone | | 67-64-1 | 5.253 |
| Carbon Dioxide | | 124-38-9 | 3 |
| Other components below reportable levels | | | 0.079 |

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

| | |
|---|---|
| Inhalation | If symptoms develop move victim to fresh air. Get medical attention if symptoms persist. |
| Skin contact | Wash off with soap and water. Get medical attention if irritation develops and persists. |
| Eye contact | Rinse with water. Get medical attention if irritation develops and persists. |
| Ingestion | Rinse mouth. Get medical attention if symptoms occur. |
| Most important symptoms/effects, acute and delayed | Aspiration may cause pulmonary edema and pneumonitis. Dizziness. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| General information | IF exposed or concerned: Get medical advice/attention. 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. Show this safety data sheet to the doctor in attendance. |

5. Fire-fighting measures

| | |
|--|--|
| Suitable extinguishing media | Not available. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |
| Fire fighting equipment/instructions | Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes. |
| General fire hazards | Extremely flammable aerosol. |

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 touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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 | Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |

7. Handling and storage

| | |
|--------------------------------------|--|
| Precautions for safe handling | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. |
|--------------------------------------|--|

**Conditions for safe storage,
including any incompatibilities**

Level 3 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

| Components | Type | Value |
|----------------------------------|------|-----------|
| Acetone (CAS 67-64-1) | STEL | 500 ppm |
| | TWA | 250 ppm |
| Carbon Dioxide (CAS 124-38-9) | STEL | 30000 ppm |
| | TWA | 5000 ppm |
| Methylene Chloride (CAS 75-09-2) | TWA | 50 ppm |

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

| Components | Type | Value |
|----------------------------------|------|-------------|
| Acetone (CAS 67-64-1) | STEL | 1800 mg/m3 |
| | | 750 ppm |
| | TWA | 1200 mg/m3 |
| | | 500 ppm |
| Carbon Dioxide (CAS 124-38-9) | STEL | 54000 mg/m3 |
| | | 30000 ppm |
| | TWA | 9000 mg/m3 |
| | | 5000 ppm |
| Methylene Chloride (CAS 75-09-2) | TWA | 174 mg/m3 |
| | | 50 ppm |

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

| Components | Type | Value |
|----------------------------------|------|-----------|
| Acetone (CAS 67-64-1) | STEL | 500 ppm |
| | TWA | 250 ppm |
| Carbon Dioxide (CAS 124-38-9) | STEL | 15000 ppm |
| | TWA | 5000 ppm |
| Methylene Chloride (CAS 75-09-2) | TWA | 25 ppm |

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

| Components | Type | Value |
|----------------------------------|------|-----------|
| Acetone (CAS 67-64-1) | STEL | 500 ppm |
| | TWA | 250 ppm |
| Carbon Dioxide (CAS 124-38-9) | STEL | 30000 ppm |
| | TWA | 5000 ppm |
| Methylene Chloride (CAS 75-09-2) | TWA | 50 ppm |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Components | Type | Value |
|-------------------------------|------|-----------|
| Acetone (CAS 67-64-1) | STEL | 750 ppm |
| | TWA | 500 ppm |
| Carbon Dioxide (CAS 124-38-9) | STEL | 30000 ppm |
| | TWA | 5000 ppm |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Components | Type | Value |
|----------------------------------|------|--------|
| Methylene Chloride (CAS 75-09-2) | TWA | 50 ppm |

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

| Components | Type | Value |
|----------------------------------|------|-------------|
| Acetone (CAS 67-64-1) | STEL | 2380 mg/m3 |
| | | 1000 ppm |
| | TWA | 1190 mg/m3 |
| Carbon Dioxide (CAS 124-38-9) | | 500 ppm |
| | STEL | 54000 mg/m3 |
| | | 30000 ppm |
| Methylene Chloride (CAS 75-09-2) | TWA | 9000 mg/m3 |
| | | 5000 ppm |
| | | 174 mg/m3 |
| | | 50 ppm |

Biological limit values**ACGIH Biological Exposure Indices**

| Components | Value | Determinant | Specimen | Sampling Time |
|----------------------------------|----------|-----------------|----------|---------------|
| Acetone (CAS 67-64-1) | 25 mg/l | Acetone | Urine | * |
| Methylene Chloride (CAS 75-09-2) | 0.3 mg/l | Dichloromethane | Urine | * |

* - For sampling details, please see the source document.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) 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.

Individual protection measures, such as personal protective equipment

Eye/face protection If contact is likely, safety glasses with side shields are recommended.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Use of an impervious apron is recommended.

Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material 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**

Gas.

Form

Aerosol.

Color

Not available.

Odor

Not available.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

132.89 °F (56.05 °C) estimated

Flash point

41.6 °F (5.3 °C) estimated

| | |
|---|---------------------------------|
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | 3.2 % estimated |
| Flammability limit - upper (%) | 9.1 % estimated |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | Not available. |
| Vapor density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 803.05 °F (428.36 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not oxidizing. |
| Specific gravity | 0.045 estimated |

10. Stability and reactivity

| | |
|------------------------------------|---|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous polymerization does not occur. |
| Conditions to avoid | Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological information

Information on likely routes of exposure

| | |
|--------------|--|
| Inhalation | No adverse effects due to inhalation are expected. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. |

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. Dizziness.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

| Components | Species | Test Results |
|-----------------------|------------|---|
| Acetone (CAS 67-64-1) | | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Guinea pig | > 7426 mg/kg, 24 Hours > 9.4 ml/kg, 24 Hours |
| | Rabbit | > 7426 mg/kg, 24 Hours |

| Components | Species | Test Results |
|--|--|--|
| | | > 9.4 ml/kg, 24 Hours |
| Inhalation | | |
| LC50 | Rat | 55700 ppm, 3 Hours 132 mg/l, 3 Hours 50.1 mg/l |
| Oral | | |
| LD50 | Rat | 5800 mg/kg 2.2 ml/kg |
| Methylene Chloride (CAS 75-09-2) | | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rat | > 2000 mg/kg, Days |
| Inhalation | | |
| <i>Vapor</i> | | |
| LC50 | Mouse | 49000 mg/m3, 7 Hours |
| Oral | | |
| LD50 | Rat | > 2000 mg/kg |
| Naphtha (petroleum), Light Alkylate (CAS 64741-66-8) | | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rabbit | > 1900 mg/kg, 24 Hours |
| Inhalation | | |
| <i>Vapor</i> | | |
| LC50 | Rat | > 5000 mg/m3, 4 Hours > 4980 mg/m3 > 4980 mg/m3, 4 Hours > 4.96 mg/l, 4 Hours |
| Oral | | |
| LD50 | Rat | 4820 mg/kg |
| * Estimates for product may be based on additional component data not shown. | | |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. | |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation. | |
| Respiratory or skin sensitization | | |
| Respiratory sensitization | Not a respiratory sensitizer. | |
| Skin sensitization | This product is not expected to cause skin sensitization. | |
| Germ cell mutagenicity | May cause genetic defects. | |
| Carcinogenicity | May cause cancer. | |
| ACGIH Carcinogens | | |
| Acetone (CAS 67-64-1) | A4 Not classifiable as a human carcinogen. | |
| Methylene Chloride (CAS 75-09-2) | A3 Confirmed animal carcinogen with unknown relevance to humans. | |
| Canada - Manitoba OELs: carcinogenicity | | |
| ACETONE (CAS 67-64-1) | Not classifiable as a human carcinogen. | |
| DICHLOROMETHANE (CAS 75-09-2) | Confirmed animal carcinogen with unknown relevance to humans. | |
| Canada - Quebec OELs: Carcinogen category | | |
| Methylene Chloride (CAS 75-09-2) | Suspected carcinogenic effect in humans. | |
| IARC Monographs. Overall Evaluation of Carcinogenicity | | |
| Methylene Chloride (CAS 75-09-2) | 2A Probably carcinogenic to humans. | |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. | |

| | |
|---|---|
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | May be fatal if swallowed and enters airways. |
| Chronic effects | Prolonged exposure may cause chronic effects. |

12. Ecological information

Ecotoxicity The 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 |
|----------------------------------|------|--|------------------------------|
| Acetone (CAS 67-64-1) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 21.6 - 23.9 mg/l, 48 hours |
| Fish | LC50 | Rainbow trout, donaldson trout (Oncorhynchus mykiss) | 4740 - 6330 mg/l, 96 hours |
| Methylene Chloride (CAS 75-09-2) | | | |
| Aquatic | | | |
| Algae | IC50 | Algae | 500.0001 mg/L, 72 Hours |
| Crustacea | EC50 | Daphnia | 1689.5 mg/L, 48 Hours |
| | | Water flea (Daphnia magna) | 1250 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 140.8 - 277.8 mg/l, 96 hours |

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

| | |
|--------------------|-------|
| Acetone | -0.24 |
| Methylene Chloride | 1.25 |

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. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused products | 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. Do not re-use empty containers. |

14. Transport information

TDG

| | |
|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | AEROSOLS, flammable |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Packing group | Not applicable. |
| Environmental hazards | D |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |

This product meets the exemption requirements and may be shipped as a limited quantity.

IATA

| | |
|------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, flammable |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Label(s) | 2.1 |
| Packing group | Not applicable. |
| Environmental hazards | No. |
| ERG Code | 10L |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling. |
| Other information | |
| Passenger and cargo aircraft | Allowed with restrictions. |
| Cargo aircraft only | Allowed with restrictions. |

IMDG

| | |
|------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | AEROSOLS |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Label(s) | 2.1 |
| Packing group | Not applicable. |
| Environmental hazards | |
| Marine pollutant | No. |
| EmS | F-D, S-U |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling. |

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

IATA; IMDG; TDG



15. Regulatory information

Canadian regulations

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Carbon Dioxide (CAS 124-38-9)

Precursor Control Regulations

Acetone (CAS 67-64-1)

Class B

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Carbon Dioxide (CAS 124-38-9)

Listed.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information**Issue date** 05-10-2017**Version #** 01

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.

Revision information Product and Company Identification: Alternate Trade Names