

**BRODI SPECIALTY PRODUCTS LTD.
MATERIAL SAFETY DATA SHEET**

SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MICROFLO
Product Number: 0931-23-002B
Chemical Family: Halogenated hydrocarbons
Molecular Weight: Not Applicable
Chemical Formula: Not Applicable
Trade names and synonyms: 0931-23-002B Powerflo
Product Uses: Degreaser /Cleaner
Formula/lab book #: Form – 9910-2-251

Date Prepared: December 1, 2011
Emergency Phone: 1-(800) 228-5635
Information Phone: 1-(877) 744-0751
Supplier's Name: Brodi Specialty Products Ltd.
Supplier's Address: 3175 14th Ave, Unit 1 Markham, ON, L3R 0H1
Prepared By: MSDS Co-ordinator, (877) 744-0751 ext 205, Brodi Specialty Products Ltd.

SECTION 2: COMPOSITION/INFORMATION INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S #	LD/50 Route, Species	LD/50 Route, Species
1,1,1,2 – Tetrafluoroethane	60-100	1000 ppm	811-97-2	Not Available	567000 ppm (4hr) INHAL- RAT
Acetone	1-5	750ppm	67-64-1	9750 mg/kg ORAL-RAT	16,000 ppm (4hr) INHAL-RAT

SECTION 3: HAZARDS IDENTIFICATION

Route of Entry
INGESTION.....Product is a gas, therefore, ingestion is not likely a route of exposure
INHALATION.....Propellant is a simple asphyxiant
EYE CONTACT.....May cause irritation
SKIN ABSORPTION.....No data available for this product mixture
SKIN CONTACT.....May cause irritation. May cause frostbite
EFFECTS OF ACUTE EXPOSURE.....Dizziness, nausea, irritation to skin and eyes
EFFECTS OF CHRONIC EXPOSURE.....None known
EXPOSURE LIMIT OF MATERIAL.....See section 2

SECTION 4: FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURE...In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention.
For skin, wash thoroughly with soap and water. If affected by inhalation of vapour or spray mist, remove to fresh air. If swallowed do not induce vomiting, get medical attention

SECTION 5: FIRE FIGHTING MEASURES

AUTO IGNITION TEMPERATURE (°C)465
SPECIAL PROCEDURES.....Water from fogging nozzles may be used to cool closed containers to prevent build up if exposed to extreme temperatures.
Full protective equipment including self contained breathing apparatus should be worn in a fire involving this material.
FLAMMABILITY.....Not a flammable product (as per Canadian aerosol regulations)
IF YES UNDER WHAT CONDITIONS?.....Excessive heat, sparks and open flame
EXTINGUISHING MEDIA.....Water, carbon dioxide, dry chemical, foam.
UPPER FLAMMABLE LIMIT (% BY VOLUME).....12.8
LOWER FLAMMABLE LIMIT (% BY VOLUME).....1
EXPLOSION DATA
SENSITIVITY TO DISCHARGE.....Not applicable
SENSITIVITY TO IMPACT.....Not applicable
HAZARDOUS COMBUSTION PRODUCTS.....Hydrocarbon fumes and smoke, carbon monoxide where combustion is incomplete
AEROSOL FLAME PROTECTION
CLASSIFIED AS.....0 cm
FLASHBACK.....NONE
FLASH POINT (°C). TAG CLOSED –CUP.....NONE. LOWEST KNOWN VALUE IS ACETONE @ - 18C
(CONCENTRATE)

SECTION 6: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL.....Remove all sources of ignition, use an inert absorbent material, and non – sparking tools. Ventilate area prevent from entering a watercourse.

SECTION 7: HANDLING AND STORAGE

STORAGE NEEDS.....Keep away from heat, sparks, and open flames.
ENGINEERING CONTROLS.....Ventilation – local (mechanical if used indoors on a continuous basis)
HANDLING PROCEDURES AND EQUIPMENT.....Store in a cool, well ventilated area not to exceed 50 °C
SYNERGISTIC MATERIALS.....None Known

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/TYPE.....Wear chemical resistant gloves
RESPIRATORY/TYPE.....If used indoors on a continuous basis, use of a cartridge type respirator (NIOSH/MSHATC 23C or equivalent) is recommended
EYE/TYPE.....Safety glasses
FOOTWEAR/TYPE.....Not normally required
OTHER/TYPE.....Not required

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE.....Aerosol
APPEARANCE.....Colourless
ODOR.....Ethereal
ODOR THRESHOLD.....Not available
VAPOUR PRESSURE (PSIG)-AEROSOL AT 20 °C.....65-75
BOILING POINT (°C)(CONC).....57
EVAPORATION RATE n-BUTYL ACETATE = 1.....Not available
VAPOUR DENSITY (AIR=1).....Greater than 1
(BY WEIGHT)
SOLUBILITY IN WATER g/l (20°C).....0.15
pH.....Not available
SPECIFIC GRAVITY (LIQUID).....Not available
COEFFICIENT OF WATER/OIL DIST.....Not available
FREEZING POINT: (°C).....-117
AEROSOL PERCENT VOLATILE(BY WEIGHT).....100

SECTION 10: STABILITY AND REACTIVITY

HAZARDOUS PRODUCTS OF DECOMPOSITION..... Hydrocarbon fumes and smoke. Carbon monoxide where combustion is incomplete.
CHEMICAL STABILITY:
YES.....Under normal conditions
NO, WHICH CONDITIONS?.....Not applicable
COMPATIBILITY WITH OTHER SUBSTANCES:
NO, WHICH ONES?.....Strong oxidizing agents
REACTIVITY CONDITIONS?.....Not applicable
HAZARDOUS POLYMERIZATION.....Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

REPRODUCTIVE EFFECTS.....No information is available and no adverse reproductive effects are anticipated
IRRITATION OF MATERIAL.....Skin/eye irritant
SENSITIZING CAPABILITY OF MATERIAL.....Unknown
CARCINOGENICITY OF MATERIAL.....The ingredients of this product are not listed as carcinogens by NTP. (National Toxicology program), not regulated as carcinogens by OSHA (Occupational Safety and Health Administration), and have not been evaluated by IARC (International Agency for Research on Cancer), nor by ACGIH(American Conference of Governmental Industrial Hygienists).
TERATOGENICITY.....No information is available and no adverse teratogenic effects are anticipated.
MUTAGENICITY.....No information is available and no adverse mutagenic effects are anticipated

SECTION 12: ECOLOGICAL CONSIDERATIONS

ENVIRONMENTAL.....Not available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL.....Do not puncture or incinerate containers, even when empty. Dispose of in accordance with local, provincial,
and federal regulations.

SECTION 14: TRANSPORTATION INFORMATION

T D G CLASSIFICATION.....Consumer commodity (aerosols, UN1950, class 2.2)
D O T CLASSIFICATION.....Consumer commodity ORM-D

SECTION 15: REGULATORY INFORMATION

CANADIAN REGULATIONS

WHMIS CLASSIFICATION.....A,D2B
CNFC SECTION 3.3.5.....LEVEL 1
CEPA (CANADIAN ENVIRONMENTAL PROTECTION ACT).....All substances in this product are listed on the Canadian domestic substances list. (DSL) or are not required to be listed.

U.S REGULATIONS

HMIS RATING HEALTH.....1 slight hazard
HMIS RATING FLAMMABILITY.....0 minimal hazard
HMIS RATING REACTIVITY.....1 slight hazard
HMIS RATING PERSONAL PROTECTION.....B
NFPA COE 30B.....Level 1
SARA 313 INFORMATION.....This product contains no ingredients subject to the reporting requirements of section 313 of the emergency planning and community right-to-know act of 1986 and of 40 CFR 372
CAS # CHEMICAL NAME
N/A
CALIFORNIA PROPOSITION 65.....The following statement is made in order to comply with the California safe drinking water and toxic enforcement
California to act of 1986. Warning this product does not intentionally contain any chemicals known to the state of cause cancer, birth defects, or other reproductive harm.
CAS# CHEMICAL NAME
N/A
TSCA (TOXIC SUBSTANCES CONTROL ACT)All components of this product are listed on the TSCA inventory any impurities present in this product are exempt from listing.
VOC (w/w%).....0.

