

**SAFETY DATA SHEET**

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BRODI SPECIALTY PRODUCTS LTD.  
3175 14th Avenue, Unit 1  
Markham, Ontario, L3R 0H1  
Canada  
1-877-744-0751

**PRODUCT: MARFLO****SECTION 01: IDENTIFICATION**

Supplier identifier..... BRODI SPECIALTY PRODUCTS LTD.  
3175 14th Avenue, Unit 1  
Markham, Ontario  
Canada  
L3R 0H1  
1-877-744-0751

Product identifier..... MARFLO  
Product code..... BRODI6278  
Emergency telephone number..... CANUTEC 24-hour number (613-996-6666).  
Product use..... Granular drain opener.

**SECTION 02: HAZARD IDENTIFICATION**

Hazard classification..... Substances and Mixtures Which, in Contact with Water, Emit Flammable Gases — Category 2. Corrosive to Metals — Category 1 . Combustible Dusts — Category 1 . Acute Toxicity (Dermal) — Category 4. Skin Corrosion — Category 1. Serious Eye Damage — Category 1.

Signal word..... DANGER.

Hazard statement..... H290 May be corrosive to metals. H261 In contact with water releases flammable gases. May form combustible dust concentrations in air. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage.

Precautionary statements..... P280 Wear protective gloves/protective clothing/eye protection/face protection. P234 Keep only in original packaging. P223: Do not allow contact with water. . P232 Protect from moisture. P260 Do not breathe dust or mist. P264 Wash thoroughly after handling. P390 Absorb spillage to prevent material damage. P370+P378: In case of fire: Use DRY SAND ONLY to extinguish. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P335: Brush off loose particles from skin. . P363 Wash contaminated clothing before reuse. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P406 Store in corrosion resistant container with a resistant inner liner. P402+P404 Store in a dry place. Store in a closed container. P405 Store locked up. P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards..... None.

**SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENTS	CAS #	WT. %
Sodium hydroxide	1310-73-2	65-70
Aluminum powder	7429-90-5	6-7.5

**SECTION 04: FIRST-AID MEASURES**

Routes of exposure

Inhalation..... If dust from the material is inhaled, remove the affected person immediately to fresh air. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Call a physician if symptoms develop or persist.

Ingestion..... Rinse mouth and then drink plenty of water. Do not induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Skin contact..... Brush off loose particles from skin. Wash affected area immediately with water for 15 minutes. Remove contaminated clothing and wash before reuse. Get medical aid.

Eye contact..... Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical aid.

**PRODUCT: MARFLO****SECTION 04: FIRST-AID MEASURES**

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

**SECTION 05: FIRE-FIGHTING MEASURES**

Extinguishing media.....  
Hazardous combustion products.....

DRY SAND ONLY!.

Carbon oxides. Sodium oxides. Aluminum oxide. Molten metals produce fume, vapor and/or dust that may be toxic and/or a respiratory irritant.

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Special protective equipment and precautions

Sensitivity to static discharge.....

Expected to be sensitive.

Sensitivity to mechanical impact.....

Product is not sensitive to mechanical impact.

Further information.....

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire. Reacts with water, acids or alkalies to generate hydrogen gas.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Eliminate all sources of ignition. Wear protective equipment: goggles, chemically resistant clothing and gloves, and appropriate respirator if in a confined area.

Environmental precautions.....

Prevent spilled material from entering the ground, water and/or air by using appropriate containment methods. Do not discharge into drains/surface waters/groundwater.

Methods and materials for containment and cleaning up

Cover with plastic sheet to prevent spreading. Pick up wipe and place into an appropriate container for disposal. Nonsparking tools should be used. Never return spills to original containers for re-use. Do not place into containers where ignition sources such as cigarettes or other ignition sources may be discarded. Dispose of absorbed material in accordance with regulations.

**SECTION 07: HANDLING AND STORAGE**

Handling precautions.....

Read label on container before using. Use only with adequate ventilation. Do not inhale dusts. Use good industrial hygiene practices in handling this material. Do not eat, drink or smoke when using this product. Keep container closed when not in use.

Storage needs.....

Keep in a dry, cool and well-ventilated place. Keep containers tightly closed when not in use.

Materials to avoid.....

Keep away from strong acids. Keep away from oxidizing agents. Avoid exposure to water and moisture.

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	ACGIH TLV		OSHA PEL		NIOSH
	TWA	STEL	PEL	STEL	
Sodium hydroxide	no data available	2 mg/m3 (Ceiling)	no data available	no data available	2 mg/m3 (Ceiling)
Aluminum powder	10 mg/m3	not available	15 mg/m3	not available	10 mg/m3
Engineering controls.....	Good general ventilation (typically 10 air changes per hour) should be used.				
Individual protection measures					
Eye/type.....	Safety glasses with side-shields.				
Gloves/ type.....	Wear chemical resistant protective gloves.				
Respiratory/type.....	Generally not required. Wear respiratory protection if ventilation is inadequate.				
Hygiene measures.....	Handle in accordance with good industrial hygiene and safety practice. Wear clean long legged, long sleeved work clothes.				

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance.....

powder.

Color.....

white.

Odour.....

odorless.

Odour threshold.....

no data available.

pH.....

14.

Melting point (°C).....

no data available.

Freezing point (°C).....

no data available.

Initial boiling point (°C).....

no data available.

Flash point (°C), Method.....

No data available.

Evaporation rate.....

no data available.

Upper flammability limit (% vol).....

no data available.

Lower flammability limit (% vol).....

no data available.

Vapour pressure (mm Hg).....

no data available.

**PRODUCT: MARFLO****SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Vapour density (air=1).....	no data available.
Relative density/Specific Gravity.....	no data available.
Water solubility.....	soluble.
Solubility in other solvents.....	no data available.
Partition coefficient — n-octanol/water.....	no data available.
Auto ignition temperature (°C).....	no data available.
Thermal decomposition temperature.....	no data available.
Viscosity.....	not applicable.

**SECTION 10: STABILITY AND REACTIVITY**

Reactivity.....	No hazardous reactions if stored and handled as prescribed/indicated.
Chemical stability.....	The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions.....	No hazardous reactions when stored and handled according to instructions. The product is chemically stable.
Conditions to avoid.....	Keep away from heat. Keep away from sources of ignition. Avoid exposure to water and moisture.
Incompatible materials.....	Strong oxidizers, combustible materials and mineral acids.
Hazardous decomposition products.....	Toxic gases/fumes may be given off during burning or thermal decomposition. May include and are not limited to: aluminum oxide, chlorine gas, sodium dioxide.

**SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
Sodium hydroxide	no data available	1350 mg/kg (dermal, rabbit)
Aluminum powder	not available	not available
Routes of exposure		
Inhalation		
Ingestion		
Skin contact		
Eye contact		
Acute effects		
Acute oral toxicity.....	Acute toxicity estimate > 2,000 mg/kg. Method: calculation method. Virtually nontoxic after a single ingestion.	
Acute dermal toxicity.....	Acute toxicity estimate: > 1,000 mg/kg and < 2,000 mg/kg. Harmful in contact with skin. Method: calculation method.	
Acute inhalation toxicity.....	Acute toxicity estimate : > 20 mg/l. Virtually nontoxic by inhalation. Method: calculation method.	
Skin corrosion/irritation.....	Result: Skin corrosion.	
Serious eye damage/eye irritation.....	Result: Corrosive to eyes.	
Respiratory or skin sensitisation.....	Non-sensitizing.	
Specific target organ toxicity (STOT) single exposure	Based on the available information there is no specific target organ toxicity to be expected after a single exposure.	
Aspiration hazard.....	No aspiration hazard expected.	
Chronic toxicity/effects		
Specific target organ toxicity (STOT) repeated exposure	No known significant effects or critical hazards.	
Carcinogenicity.....	No carcinogenic substances as defined by IARC, NTP, OSHA and/or ACGIH.	
Reproductive toxicity.....	No known significant effects or critical hazards.	
Germ Cell Mutagenicity.....	No known significant effects or critical hazards.	
Remarks.....	The product has not been tested. The statement has been derived from the properties of the individual components.	
Symptoms of Exposure.....	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.	

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity.....	May cause long-term adverse effects in the aquatic environment.
Persistence and degradability.....	No data available.
Bioaccumulative potential.....	No data available.
Mobility in soil.....	No data available.
Other adverse effects.....	No applicable information available.

**PRODUCT: MARFLO****SECTION 13: DISPOSAL CONSIDERATIONS**

Disposal methods  
Waste disposal of substance..... Dispose of in accordance with national, state and local regulations.  
Container disposal ..... Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

**SECTION 14: TRANSPORT INFORMATION**

TDG classification..... Corrosive solid, water-reactive, n.o.s. (sodium hydroxide, aluminum), UN3096, Class 8(4.3), PGII.

**SECTION 15: REGULATORY INFORMATION**

WHMIS regulatory status..... This product has been classified in accordance with the hazard criteria of the Canadian Hazardous Products Regulations and the Safety Data Sheet contains all the information required by the Hazardous Products Regulations (WHMIS 2015). This product is WHMIS 2015 controlled.

**SECTION 16: OTHER INFORMATION**

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.

Prepared by: ..... CanChem Consultant  
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