

SECTION 1 – Identification of the substance or mixture and of company/undertaking

Product Name: MAXIBLAST **Other means of identification:** Iron Silicate **Recommended Use:** Blasting abrasives, roofing granules and other aggregate uses **Restriction on use:** None known

Supplier/ Contact information:

Bellemare Abrasives & Minerals 8750 Boul. Industriel Trois-Rivières (Québec) Canada G9A 5E1 Phone: 1 866-885-4366 Fax: 819-376-2628 Emergency phone number: 819-609-9900

SECTION 2 – Hazards identification

GHS Classification: This product is hazardous according to OSHA 29 CFR 1910.1200.

Health hazards:

Acute toxicity (Oral) - Category 4 Carcinogenicity - Category 2 Skin corrosion/irritation - Category 3 Eyes damage/irritation - Category 2A Specific target organ toxicity, single exposure - Category 2 (respiratory system) Specific target organ toxicity, single exposure - Category 2 (digestive system and/or systemic toxicity) Specific target organ toxicity, repeated exposure - Category 2 (respiratory system, lungs)



Signal word:

Warning

Hazard statement: Harmful if swallowed. Can cause skin and eyes irritation. May cause damage to respiratory system and lungs through prolonged or repeated exposure.

Precautionary statement:

Prevention

Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response

If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. If swallowed: Rinse mouth and call a poison center or doctor if you feel unwell.

Disposal

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

SECTION 3 - Composition / information on ingredients

Ingredient Name	CAS Number	%
Iron silicate	67711-92-6	100
Ingredient Name	CAS Number	%
Iron oxide (Fe2O3)	1309-37-1	30-60
Silicon Dioxide, amorphous silica	7631-86-9	30-60
Calcium oxide	1305-78-8	1-5
Aluminum oxide	1344-28-1	1-5
Zinc	7440-66-6	1-5
Crystalline silica	14808-60-7	< 0,1

SECTION 4 - First aid measures

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention.

Eye Contact: Immediately flush eyes with large amounts of clean water for at least 15 minutes while holding the eyelids open. Remove contact lenses. Occasionally lift the eyelids to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from eyes. Get medical attention if irritation persists or later develops.

Skin Contact: If adverse effects occur, wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse. Wash work clothes separately from another household clothing.

Ingestion: If swallowed, rinse mouth and get immediate medical attention. Do not induce vomiting.

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

The substance may be toxic to lungs, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage.

SECTION 5 - Firefighting measures

Flammability: This product is non-flammable and non-explosive.

Extinguishing Media: If product is involved in fire, use any extinguishing media appropriate to surrounding.

Fire-Fighting Equipment/Instructions: Stay upwind and keep out of low areas. Avoid inhalation of material or combustion byproducts. Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure. Keep container tightly closed.

Specific hazards arising from the chemical: Negligible fire hazard. Combustion: oxides of zinc.

SECTION 6 - Accidental release measures

Personal Precautions, protective equipment and emergency procedures: Persons involved in cleanup processes should first observe precautions (as appropriate) identified in Section 8 of this SDS. Avoid generation of dust. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods and materials for containment and cleaning up: Collect spilled material in appropriate container for disposal. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). If sweeping of a contaminated area is necessary, use a dust suppressant agent. Move containers away from spill to a safe area. Wet down area with water.

SECTION 7 - Handling and storage

Handling Precautions: Avoid inhalation of dust and contact with eyes and skin. Wash thoroughly after handling. Wear protective equipment to comply with good occupational hygiene practice. Do not eat, drink or smoke at the work place.

Storage Requirements: Keep container tightly closed and keep material dry in storage. Avoid creating dust. Avoid breakage of bagged material or spills of bulk material.

SECTION 8 - Exposure controls / personal protection

Exposure Guidelines: Exposure to this product may be covered by OSHA inert or nuisance dust limits 15mg/m³ for total dust and 5mg/m³ for respirable portion. ACGIHTLV: 10mg/m³ for total dust and 5mg/m³.

Engineering Controls: Provide local exhaust or process enclosure ventilation system. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Protective Clothing/Equipment: Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Where dust or vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator is required. Use gloves to provide hand protection from abrasion. Wear appropriate chemical resistant clothing.

SECTION 9 - Physical and chemical properties

Appearance: Black, angular particles Odor: Odorless PH Not available Flammability: Non-combustible Vapor Pressure: Not applicable Vapor Density (Air=1): Not applicable Boiling Point: Not applicable Melting Point: 1027-1341°C Flash Point: Non-flammable, non-explosive Specific Gravity (H₂O=1): 3.5 (typical) Evaporation Rate (butyl acetate=1): Not applicable Solubility in Water: <0.4 ppm Autoignition temperature: Not available

SECTION 10 - Stability and reactivity

Stability: This product is stable under normal conditions of use, storage and transportation.
Possibility of hazardous reactions: Hazardous polymerization will not occur.
Conditions to Avoid: Avoid dust formation and contact with acids.
Incompatible materials: Strong acids.
Hazardous Decomposition Products: Miscellaneous decomposition products.

SECTION 11 - Toxicological information

Inhalation: Dusts may irritate the nose, throat, mucous membranes and respiratory tract.

Eye Contact: Dust particles can scratch the eye causing tearing, redness, a stinging or burning feeling, or swelling of the eyes with blurred vision. Conjunctivitis may occur.

Skin Contact: Direct contact may cause irritation by mechanical abrasion.

Ingestion: Diarrhea, stomach pain, difficulty breathing.

Medical Conditions Aggravated by Exposure: Persons with impaired respiratory function may be more susceptible to the effects of this substance. Smoking can increase the risk of lung injury.

Delayed and immediate effects and also chronic effects from short and long-term exposure: Respiratory tract irritant, skin irritant, eye irritant. Coughing and irritation of throat are early symptoms. Material is irritating to mucous membranes and upper respiratory tract. Inhalation of dust over a long period of time increases the risk of developing lung diseases, including pneumoconiosis.

Carcinogenicity: Negative. Iron silicate does not contain any constituents classified as a Category 1 carcinogen. It does contain minor constituents classified as a Category 2 carcinogen but below 1.0 %. Therefore, it does not meet criteria for classification for carcinogenicity.

IARC: Copper slag (CAS 67711-92-6) is not list by IARC.

NTP: Copper slag (CAS 67711-92-6) is not list by the National Toxicology Program in their Annual Report. **OSHA:** Copper slag (CAS 67711-92-6) is not list by NIOSH on their Occupational Cancer List.

Take special precaution to note the potential hazards of the substrate, coatings or contamination that are removed by the use of our product. All material Certifications and chemical analyses should be obtained before commencement of work.

SECTION 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.

Reliable acute/short term toxicity data of copper slag are available for the three trophic levels (algae, Daphnia and fish). These studies show that the lowest L(E) C50 is > 100 mg/L and confirm that there is no need to classify copper slag for acute aquatic hazard:

- 96 h LC50 (*fish*) >100g/L (Sauerwald and Weiss, 2004)
- 48 h EC50 (Daphnia magna) 980mg/L to >6250 mg/L (Simon, 2010)
- 48 h EC50 (*Daphnia magna*) >100 g/L (Sauerwald and Weiss (2004)
- 72 h EC50 (*P. Subcapitata*) 155 mg/L to 965 mg/L (Wenzel, 2010)
- 72 h EC50 (N. Pelliculosa)1047 mg/L to >3125 mg/L (Wenzel, 2010)
- 72 h IC50 (algae)> 100 g/L (Sauerwald and Weiss (2004)

Persistence and degradability: This product is not biodregadable.
Bioaccumulative potential: Not applicable.
Mobility in soil: Not available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - Disposal considerations

Waste Disposal: Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations. If approved, may be transferred to a land disposal site. Please refer to section 8 for the safety of persons conducting disposal.

SECTION 14 - Transport information

UN Number: Non-regulated material Transport Hazard Class: Non-regulated material Packing Group: Not applicable Marine Pollutant: Not available Special Precautions: Not available

Shipping Containers: Hopper cars, hopper trucks, bags and semi-bulk bags. Natural sand is not regulated as a hazardous material by DOT.

SECTION 15 - Regulatory information

You must comply with all OSHA, local, city, state, province, country and jurisdiction regulations, ordinances and standards, related to your particular work area and environment. Keep unprotected individuals out of the work area. Failure to avoid the above danger will result in death or serious injury.

U.S. Federal Regulations:

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Aluminum oxide (1344-28-1)

SARA 313: 1.0 % de minimis concentration (fibrous forms)

Zinc (7440-66-6)

SARA 313: 1.0 % de minimis concentration (dust or fume only)

CERCLA: 454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100 \ \mu$ m); 1000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100 \ \mu$ m)

Copper (7440-50-8)

SARA 313: 1.0 % de minimis concentration

CERCLA: 5000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 μ m); 2270 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 μ m)

SARA 311/312 Hazardous Categories

Acute Health: Yes Chronic Health: Yes Fire: No Pressure: No Reactive: No

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe



WHMIS 2015 classification: This Safety Data Sheet (SDS) has been prepared to comply with this requirement.

OSHA: This Safety Data Sheet (SDS) has been prepared to comply with the Hazard Communication Standard, 29 CFR 1910.1200.

California proposition 65: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16 - Other information

Issue date: 01/01/2016 Last Updated: 17/12/2018 The following sections contain revisions: All sections

Disclaimer: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Bellemare Abrasives & Minerals be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages.