



MATERIAL SAFETY DATA SHEET

MSDS DATE: 12/20/2007

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: PORAVER® (all grain sizes)
SYNONYMS: Expanded Glass Granules

MANUFACTURER: PORAVER North America Ltd.
ADDRESS: 2429 Bowman Street
 Innisfil, Ontario L9S 3V6

PREPARATION INFORMATION: Prepared by Research and Development

TELEPHONE: (705) 431-0022
FAX PHONE: (705) 431-2701

CHEMICAL NAME: Glass
CHEMICAL FAMILY: Glass Oxides
CAS NUMBER: 65997-17-3
CHEMICAL FORMULA: Not Applicable
CANADIAN WHMIS CLASSIFICATION: Not Controlled / Not Regulated

PRODUCT USE: Construction Materials

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>Chemical Formula</u>	<u>Typical % By Weight</u>	<u>CAS #</u>
Silicon Dioxide	SiO ₂	70 %	60676-86-0
Sodium Oxide	Na ₂ O	15 %	1313-59-3
Calcium Oxide	CaO	11 %	1305-78-8
Magnesium Oxide	MgO	2 %	1309-48-4

SECTION 3: HAZARDS IDENTIFICATION

WHMIS HAZARDOUS INGREDIENTS.....: None

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY.....: None expected. Poraver is an expanded glass bead and the ingredients are in a fused crystalline structure.

EYES.....: This product is an eye irritant due to the mechanical abrasion of the crystals.

SKIN.....: This product is a skin irritant due to the mechanical abrasion of the crystals.

INGESTION.....: Small glass particles present in this product may cause injury to the trachea, stomach and intestines.

INHALATION.....: This product is a nuisance dust. OSHA PEL (total particulate, not otherwise regulated) 15 mg/m³, (respirable particulate, not otherwise regulated) 5 mg/m³. ACGIH TLV (nuisance particulates) 10 mg/m³ (inhalable), 5 mg/m³ (respirable).

ACUTE HEALTH HAZARDS.....: None known.

CHRONIC HEALTH HAZARDS.....: Chronic exposure to respirable dust in excess of appropriate exposure limits may cause lung disease.

IRRITANCY.....: This product will irritate the skin through mechanical abrasion of the crystals.

SENSITIZATION.....: None Known.

CARCINOGENICITY.....: None Known.

REPRODUCTIVE TOXICITY.....: None Known.

TERATOGENICITY.....: None Known.

MUTAGENICITY.....: None Known.

TOXICOLOGICALLY SYNERGISTIC PRODUCTS.....: None Known.

SECTION 4: FIRST AID MEASURES

EYES.....: Flush eye with running water for 15 minutes, consult a doctor.

SKIN.....: Wash skin with soap and water; consult a doctor if irritation develops.

INGESTION.....: Consult a doctor.

INHALATION.....: Remove to fresh air. If breathing difficulty is encountered, seek medical aid.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS.....: Glass particles present in this product can cause internal injury to the trachea, stomach and intestines.



MATERIAL SAFETY DATA SHEET

MSDS DATE: 12/20/2007

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER.....: Not Applicable.
(% BY VOLUME) LOWER.....: Not Applicable.
FLASH POINT.....: Not Available.
AUTOIGNITION TEMPERATURE.....: Not Available.
CONDITIONS OF FLAMMABILITY.....: Not Flammable.
NFPA HAZARD CLASSIFICATION
HEALTH: 0 FLAMMABILITY: 0 REACTIVITY: 0 OTHER: 0
HMIS HAZARD CLASSIFICATION
HEALTH: 0 FLAMMABILITY: 0 REACTIVITY: 0 PROTECTION: 0
EXTINGUISHING MEDIA.....: Use extinguishing media appropriate to the primary cause of the fire.
SPECIAL FIRE FIGHTING PROCEDURES.....: None.
UNUSUAL FIRE AND EXPLOSION HAZARDS.....: None Known.
HAZARDOUS DECOMPOSITION PRODUCTS.....: None Known.
SENSITIVITY TO MECHANICAL IMPACT.....: None SENSITIVITY TO STATIC DISCHARGE...: None

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES.....: Shovel up or vacuum up material and dispose of waste in accordance with local, state / provincial and federal regulation.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE.....: Respirable dust may be generated during processing, handling and storage. Stored in a cool, dry, ventilated area. Protect against physical damage. Use adequate ventilation and dust collection. Practice good housekeeping. Do not allow dust to collect on walls, floors, sills, ledges, machinery, or equipment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION.....: Provide local and/or general exhaust to control dust generation below exposure limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
RESPIRATORY PROTECTION.....: Wear a NIOSH approved mask for control of nuisance dust. Respirable dust levels should be monitored regularly.
EYE PROTECTION.....: Wear safety glasses with side shields to protect against eye contact.
SKIN PROTECTION.....: Wear general purpose work gloves to protect skin from irritation.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE.....: Solid
APPEARANCE.....: White beads
ODOR.....: None
ODOUR THRESHOLD.....: None
PHYSICAL STATE.....: Solid
pH AS SUPPLIED.....: Not Applicable
pH (Other).....: 10.7 (100 g in 1 l of water)
COEFFICIENT OF WATER/OIL DISTRIBUTION.....: Not Available
BOILING POINT.....: Not available
MELTING POINT.....: approximately 750 ° C
FREEZING POINT.....: approximately 750 ° C
VAPOR PRESSURE (mmHg).....: Not applicable
VAPOR DENSITY (AIR = 1).....: Not applicable
SPECIFIC GRAVITY (H2O = 1) @ 25 ° C.....: 0.27 – 0.9
EVAPORATION RATE... BASIS (=1).....: Not applicable
SOLUBILITY IN WATER.....: Insoluble
PERCENT SOLIDS BY WEIGHT.....: 100
PERCENT VOLATILE BY WT.....: 0
VOLATILE ORGANIC COMPOUNDS (VOC).....: None
MOLECULAR WEIGHT.....: Not Applicable
VISCOSITY.....: Not Applicable



MATERIAL SAFETY DATA SHEET

MSDS DATE: 12/20/2007

SECTION 10: STABILITY AND REACTIVITY

STABILITY.....: Stable
CONDITIONS TO AVOID (STABILITY).....: None known
INCOMPATIBILITY (MATERIAL TO AVOID).....: None known
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS.....: None known
HAZARDOUS POLYMERIZATION.....: Will not occur
CONDITIONS TO AVOID (POLYMERIZATION).....: None Known

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION.....: This product contains trace amounts of heavy metals such as lead, chromium and antimony. Users need to be aware of their presence even though they are lower than any required reporting limit.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION.....: This product has been tested Via TCLP1311 and found to have no Leachable compounds present.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD.....: Dispose of waste in accordance with local, state / provincial and federal regulation

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME.....: Not regulated
HAZARD CLASS.....: Not applicable
ID NUMBER.....: Not applicable
PACKING GROUP.....: Not applicable
LABEL STATEMENT.....: Not applicable

WATER TRANSPORTATION

PROPER SHIPPING NAME.....: Not regulated
HAZARD CLASS.....: Not applicable
ID NUMBER.....: Not applicable
PACKING GROUP.....: Not applicable
LABEL STATEMENTS.....: Not applicable

AIR TRANSPORTATION

PROPER SHIPPING NAME.....: Not regulated
HAZARD CLASS.....: Not applicable
ID NUMBER.....: Not applicable
PACKING GROUP.....: Not applicable
LABEL STATEMENTS.....: Not applicable

CANADIAN TDG

PROPER SHIPPING NAME.....: Not regulated
HAZARD CLASS.....: Not applicable
ID NUMBER.....: Not applicable
PACKING GROUP.....: Not applicable
SPECIAL SHIPPING INFORMATION.....: None

SECTION 15: REGULATORY INFORMATION

CANADIAN WHMIS CLASSIFICATION: Not Controlled / Not Regulated

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT).....: All ingredients listed on the TSCA inventory
CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT).....: RQ 1 lb as chromium is equivalent to 2,000 lb of Poraver.



MATERIAL SAFETY DATA SHEET

MSDS DATE: 12/20/2007

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. Poraver North America Ltd. makes no warranties, expressed or implied, statutory or otherwise, including, but not limited to, any implied warranty or condition of merchantability or fitness for a particular purpose or course of performance or usage of trade. The user is responsible for determining whether the Poraver product is fit for a particular purpose and suitable for the user's method of use or application. Given the variety of factors that can affect the use and application of the Poraver product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the Poraver product to determine whether it is fit for a particular purpose and suitable for the user's method of use or application.