

SAND AND GRAVEL FILTER MEDIA
MATERIAL SAFETY DATA SHEET

SECTION I. IDENTIFICATION

SUPPLIERS NAME: TIGG CORPORATION
 EMERGENCY TELEPHONE: (724) 703-3020
 ADDRESS: 1 WILLOW AVENUE; OAKDALE, PA 15071
 CHEMICAL NAME AND SYNONYMS: CRYSTALLINE SILICA (QUARTZ)
 FORMULA: SiO₂

SECTION II. INGREDIENTS/SUMMARY OF HAZARDS

SILICON DIOXIDE	CAS #:	14808-60-7
	% BY WEIGHT:	100%
	ORAL LD ₅₀ :	N/A
	TLV:	ACGIH: 0.1 mg/m ³ TWA OSHA: Crystalline quartz (respirable) - 10 mg/m ³ Quartz (total dust) 30 mg/m ³

WARNING STATEMENTS:

CAUTION! WET ACTIVATED CARBON REMOVES OXYGEN FROM AIR CAUSING A SEVERE HAZARD TO WORKERS INSIDE CARBON VESSELS AND ENCLOSED OR CONFINED SPACES. BEFORE ENTERING SUCH AN AREA, SAMPLING AND WORK PROCEDURES FOR LOW OXYGEN LEVELS SHOULD BE TAKEN TO ENSURE AMPLE OXYGEN AVAILABILITY, OBSERVING ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
 SEE SECTION VI FOR COMPLETE HEALTH HAZARD DATA
 NATIONAL FIRE PROTECTION ASSOCIATION RATING HAZARDOUS MATERIALS IDENTIFICATION SYSTEM

KEY	NFPA	HMIS
= NFPA/HMIS		
4 = EXTREME/SEVERE	HEALTH	
3 = HIGH/SERIOUS		
2 = MODERATE	FIRE	
1 = SLIGHT		
0 = MINIMUM	REACTIVITY	

SARA TITLE III HAZARD CLASSIFICATION

IMMEDIATE (ACUTE) HEALTH
 DELAYED (CHRONIC) HEALTH
 FIRE
 SUDDEN RELEASE OF PRESSURE
 REACTIVE

SECTION III. PHYSICAL DATA

BOILING POINT (°F)	4046 F
VAPOR PRESSURE (mmHg)	NONE
VAPOR DENSITY (AIR =1)	NONE
SOLUBILITY IN WATER:	INSOLUBLE IN WATER
SPECIFIC GRAVITY (H ₂ O = 1)	2.65
PERCENT VOLATILE BY VOLUME (%)	N/A
pH (AQUEOUS SOLUTIONS):	N/A
BULK DENSITY:	100 LBS./CU.FT.
APPEARANCE AND ODOR:	TAN TO OFF-WHITE SAND OR PEBBLES, NO ODOR OR TASTE

FOR ADDITIONAL TECHNICAL INFORMATION, CALL (724) 703-3020

SECTION IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (°C):	NON-FLAMMABLE
FLAMMABLE LIMITS IN AIR:	NONE
AUTOIGNITION TEMPERATURE (°C):	NONE
EXTINGUISHING MEDIA:	NONE REQUIRED, SAND MAY BE USED AS EXTINGUISHING MEDIA.
SPECIAL FIRE FIGHTING PROCEDURES:	N/A
UNUSUAL FIRE AND EXPLOSION HAZARDS:	NONE, SILICA MAY BE USED TO EXTINGUISH CERTAIN CLASSES OF FIRES.

SECTION V. REACTIVITY DATA

STABILITY:	STABLE
CONDITIONS TO AVOID:	NONE
MATERIALS TO AVOID:	CONTACT WITH POWERFUL OXIDIZNG AGENTS SUCH AS FLOURING, CHLORINE TRIFLUORIDE, MAGANESE TRIOXIDE, OXYGEN DIFLUOURIDE, MAY CAUSE FIRES.
HAZARDOUS DECOMPOSITION PRODUCTS:	SILICA WILL DISOLVE IN HYDROFLUORIC ACID AND PRODUCE A CORROSIVE GAS- SILICON TETRAFLUORIDE.
HAZARDOUS POLYMERIZATION:	NO

SECTION VI. HEALTH HAZARD DATA/FIRST AID PROCEDURES

GENERAL INFORMATION:

EXPOSURE LIMITS: ACGIH TLV: 0.1 MG/M3
OSHA PEL: 10MG/M3 CRYSTALLINE QUARTZ (RESPIRABLE), QUART (TOTAL DUST) 30 MG/M3

TOXICOLOGY DATA: ORAL LD50 (RATS): N/A
DERMAL LD50 (RABBITS): N/A
INHALATION LC50 (RATS): N/A
SKIN EFFECTS (RABBITS): N/A
EYE EFFECTS (RABBITS):N/A

CONCINOGENICITY:

EFFECTS OF SINGLE EXPOSURE: SWALLOWING: NO
SKIN ABSORPTION: NO
INHALATION: YES
SKIN CONTACT: N/A
EYE CONTACT: N/A

EFFECTS OF REPEATED EXPOSURE: PROLONGED EXPOSURE TO RESPIRABLE CRYSTALLINE QUARTZ MAY CAUSE DELAYED (CHRONIC) LUNG INJURY (SILICOSIS). ACUTE OR RAPIDLY DEVELOPING SILICOSIS MAY OCCUR IN SHORT PERIOD OF TIME IN HEAVY EXPOSURE IN CERTAIN OCCUPATIONS SUCH AS SANDBLASTERS. SILICOSIS IS A FORM OF DISABLING PULMONARY FIBROSIS WHICH CAN BE PROGRESSIVE AND MAY LEAD TO DEATH.

OTHER EFFECTS OF EXPOSURE: N/A

EXISTING MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: PULMONARY FUNCTION MAY BE REDUCED BY INHALATION OF RESPIRABLE CRYSTALLINE SILICA. ALSO LUNG SCARRING PRODUCED BY SUCH INHALATION MAY LEAD TO A PROGRESSIVE MASSIVE FIBROSIS OF THE LUNG (SILICOSIS) WHICH MAY AGRRAVATE OTHER PULMONARY CONDITIONS AND DISEASES AND WHICH INCREASE SUSCEPTIABILITY TO PULMONARY TUBERCULOSIS. PROGRESSIVE MASSIVE FIBROSIS MAY BE ACCOMPANIED BY RIGHT HEART ENLARGEMENT, HEART FAILURE AND PULMONARY FAILURE. SMOKING AGRRAVATES THE EXFFECT OF EXPOSURE.

EMERGENCY FIRST AID PROCEDURE: FOR SAND IN EYES- WASH IMMEDIATELY WITH WATER. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION. FOR GROSS INHALATION- REMOVE PERSON IMMEDIATELY TO FRESH AIR, GIVE ARTIFICIAL RESPIRATION AS NEEDED, SEEK MEDICAL ATTENTION AS NEEDED.

NOTES TO PHYSICIAN:

SECTION VII. PRECAUTIONS FOR SAFE HANDLING OR USE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: USE DUSTLESS METHODS (VACUUM) AND PLACE INTO CLOSABLE CONTAINER FOR DISPOSAL, OR FLUCH WITH WATER. DO NOT DRY SWEEP. WEAR PROTECTIVE EQUIPMENT SPECIVIED BELOW.

WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: AVOID BREAKAGE OF BAGGED MATERIAL OR SPILLS OF BULK MATERIAL. SEE CONTROL MEASURE IN SECTION VIII.

OTHER PRECAUTIONS: USE DUSTLY SYSTEMS FOR HANDLING, STORAGE, AND CLEAN UP SO THAT AIRBORNE DUST DOES NOT EXCEED THE PEL. USE ADEQUATE VENTILATION AND DUST COLLECTION. PRACTICE GOOD HOUSEKEEPING. DO NOT PERMIT DUST TO COLLECTION WALLS FLOORS SILLS LEDGES MACHINERY OR EQUIPMENT. MAINTAIN CLEAN AND FIT TEST RESPIRATORS IN ACCORDANCE WITH OSHA REGULATIONS. MAINTAIN AND TEST VENTILATION AND DUST COLLECTION EQUIPMENT. WASH OR VACUUM CLOTHING WHICH HAS BECOME DUSTY. SEE ALSO CONTROL MEASURES IN SECTION VIII.

SECTION VIII. SPECIAL PROTECTION INFORMATION

PROTECTIVE EQUIPMENT SHOULD BE USED DURING THE FOLLOWING PROCEDURES: SEE OTHER PRECAUTIONS IN SECTION VII

RESPIRATORY PROTECTION: 5 X PEL OR LESS - ANY DUST RESPIRATOR
50 X PEL OR LESS - HIGH EFF. PART. FILTER RESPIRATOR WITH FULL FACEPIECE
500 X PEL OR LESS - POWERED AIR-PURIFYING RESPIRATOR WITH HIGH EFF. PART. FILTER
GREATER THAN 500 X PEL OR UNKNOWN CONC. ENTRY AND ESCAPE: SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE PIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE

VENTILATION: USE SUFFICIENT EXHAUST TO REDUCE RESPIRABLE CRYSTALLINE SILICA TO PEL

PROTECTIVE CLOTHING: OPTIONAL

EYE PROTECTION: WEAR PROTECIVE SHIELD

SECTION IX. REGULATORY STATUS

TSCA INVENTORY: N/A

TRANSPORTATION STATUS: N/A

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE LIST:
SECTION 313 TOXIC CHEMICALS:

REPORTABLE QUANTITY (RQ), UNDER U.S. EPA CERCLA: N/A

FEDERAL RCRA HAZARDOUS WASTE: N/A

STATES RIGHT-TO-KNOW LAWS: N/A

SECTION X. REFERENCES

NONE

SECTION XI. DATE

Prepared: 6/21/07
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