

MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT

FILE NO.:TAN06IS

MSDS DATE: 02/12

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 6 MHz Alloy coated Quartz Crystal Sensor

SYNONYMS:

PRODUCT CODES: TAN06IA

MANUFACTURER: Phillip Technologies

DIVISION:

ADDRESS: 2003 Perimeter Rd, Suite E, Greenville, South Carolina 29605-5276

EMERGENCY PHONE: 864.277.1560

CHEMTREC PHONE:

OTHER CALLS:

FAX PHONE:

CHEMICAL NAME: Quartz with thin silver electrode

CHEMICAL FAMILY:

CHEMICAL FORMULA:

PRODUCT USE: Thin Film Vacuum Process Control

PREPARED BY:

SECTION 1 NOTES: This is a solid state sensor comprised of single crystal quartz with a thin film metallic alloy electrode

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:

| <u>CAS NO.</u> | <u>% WT</u> | <u>% VOL</u> | <u>SARA 313 REPORTABLE</u> |
|--------------------|-------------|--------------|----------------------------|
| | <u>ppm</u> | <u>mg/m3</u> | |
| OSHA PEL-TWA: | N/A | N/A | |
| OSHA PEL STEL : | N/A | N/A | |
| OSHA PEL CEILING: | N/A | N/A | |
| ACGIH TLV-TWA: | N/A | N/A | |
| ACGIH TLV STEL: | N/A | N/A | |
| ACGIH TLV CEILING: | N/A | N/A | |

SECTION 2 NOTES:

No toxicity with this product.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This is a quartz product. A disc 0.010" thick. The only hazard would be if one actually tried to eat one since they are glass like.

ROUTES OF ENTRY: None

POTENTIAL HEALTH EFFECTS

EYES: None

SKIN: Could cut if broken and pushed against skin

INGESTION: Could scratch throat if ingested

INHALATION: None

ACUTE HEALTH HAZARDS: None

CHRONIC HEALTH HAZARDS: None

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MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:None

CARCINOGENICITY

OSHA: Unknown

ACGIH: Unknown

NTP: Unknown

IARC: Unknown

OTHER:

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES: If broken pieces enter eye, wash with water, until clear.

SKIN: If cut, wash and treat as normal cut

INGESTION: See a doctor

INHALATION:

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

Treat as a glass ingestion or exposure

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: None
(% BY VOLUME) LOWER: None

FLASH POINT:

F: None

C: None

METHOD USED:

AUTOIGNITION TEMPERATURE:

F: None

C: None

NFPA HAZARD CLASSIFICATION

HEALTH: N/A

FLAMMABILITY: N/A

REACTIVITY: N/A

OTHER: N/A

HMIS HAZARD CLASSIFICATION

HEALTH: N/A

FLAMMABILITY: N/A

REACTIVITY: N/A

PROTECTION:N/A

EXTINGUISHING MEDIA: N/A

SPECIAL FIRE FIGHTING PROCEDURES:N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

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ACCIDENTAL RELEASE MEASURES: N/A

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Store in a cool, dry place. Do not touch surface during handling (damages sensors)

OTHER PRECAUTIONS:

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: N/A

VENTILATION : N/A

RESPIRATORY PROTECTION: N/A

EYE PROTECTION:N/A

SKIN PROTECTION: Latex gloves or similar

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N/A

WORK HYGIENIC PRACTICES: N/A

EXPOSURE GUIDELINES: N/A

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Circular solid disk, silver color

ODOR: None

PHYSICAL STATE:

pH AS SUPPLIED: Neutral

pH (Other):

BOILING POINT:

F: N/A

C: N/A

MELTING POINT:

F: >2000

C: >2000

FREEZING POINT:

F: N/A

C: N/A

VAPOR PRESSURE (mmHg):

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F: N/A

C: N/A

VAPOR DENSITY (AIR = 1):

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F: N/A

C: N/a

SPECIFIC GRAVITY (H₂O = 1): 2.0

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F: 70

C: 20

EVAPORATION RATE:N/A

BASIS (=1):

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (con't)

SOLUBILITY IN WATER: Insoluble

PERCENT SOLIDS BY WEIGHT:100

PERCENT VOLATILE:

BY WT/ BY VOL @

F: 0

C:0

VOLATILE ORGANIC COMPOUNDS (VOC):

WITH WATER: 0 LBS/GAL

WITHOUT WATER: 0 LBS/GAL

MOLECULAR WEIGHT:

NA (SiO₂ is a crystal)

VISCOSITY:

@

F: N/A

C:NAa

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

STABLE

UNSTABLE

STABILITY: X

CONDITIONS TO AVOID (STABILITY): None

INCOMPATIBILITY (MATERIAL TO AVOID): None

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None

HAZARDOUS POLYMERIZATION: None

CONDITIONS TO AVOID (POLYMERIZATION):

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: N/A Non Toxic

SECTION 11 NOTES:

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SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: N/A Quartz is pervasive in nature

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: General Waste Stream

RCRA HAZARD CLASS: N/A

SECTION 13: DISPOSAL CONSIDERATIONS (con't)

SECTION 13 NOTES:None

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: Quartz Crystals

HAZARD CLASS:

ID NUMBER:

PACKING GROUP:

LABEL STATEMENT:

WATER TRANSPORTATION

PROPER SHIPPING NAME: Quartz Crystals

HAZARD CLASS:

ID NUMBER:

PACKING GROUP:

LABEL STATEMENTS:

AIR TRANSPORTATION

PROPER SHIPPING NAME: Quartz Crystals

HAZARD CLASS:

ID NUMBER:

PACKING GROUP:

LABEL STATEMENTS:

OTHER AGENCIES:

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): N/A

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): N/A

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):N/A

311/312 HAZARD CATEGORIES:N/A

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313 REPORTABLE INGREDIENTS:N/A

STATE REGULATIONS:

INTERNATIONAL REGULATIONS:

SECTION 15 NOTES:

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: None

PREPARATION INFORMATION:

DISCLAIMER: