MATERIAL SAFETY DATA SHEET

Nan-o-sil - ASD - Amorphous silicon dioxide

SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME: NAN-O-SIL ASD - AMORPHOUS SILICON DIOXIDE POWDER

CHEMICAL FAMILY: SILICON DIOXIDE (AMORPHOUS SILICA)

MANUFACTURE/DISTRIBUTOR ADDRESS: CORNING INCORPORATED -

Energy strategy associates, inc.

159 RIDERS MILLS ROAD OLD CHATHAM, NY 12136

(518) 794-0082

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CAS # 7631-86-9 AMORPHOUS SILICA - LIMIT EXPOSURES - NO, SECTION 12 INFO - NO

SECTION 3: HAZARDS TO IDENTIFICATION

NONCOMBUSTIBLE, NON REACTIVE SOLID MATERIAL, EXPOSURE TO DUST MAY BE IRRITATING TO EYES, NOSE, AND THROAT. AVOID BREATHING, SKIN CONTACT, AND INGESTION.

SECTION 4: FIRST AID MEASURE

EYES: INJURIES FROM PARTICLES SHOULD BE TREATED BY A PHYSICIAN

SKIN: CUT AND ABRASIONS SHOULD BE TREATED PROMPTLY WITH CLEANSING OF

AFFECTED AREA

INHALATION: MOVE PERSON TO NON-CONTAMINATED AREA. CALL PHYSICIAN IF SYMPTOMS

PERSIST

INGESTION: NO NEED FOR FIRST AID IS ANTICIPATED IF MATERIAL IS SWALLOWED

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: NA
FLAMMABILITY LIMITS: NA
AUTO IGNITION TEMP: NA

MEANS OF EXTINGUISHING: AS FOR THE SURROUNDING FIRE HAZARDOUS COMBUSTION PRODUCTS: MATERIAL WILL PROCEED TO A LIQUID AND WILL

FORM IRRITATING AND TOXIC GASEOUS METALLIC OXIDES AT EXTREMELY HIGH TEMPERATURE

SECTION 6: ACCIDENTAL SPILL/RELEASE MEASURES

LARGE/SMALL SPILL: COLLECT SPILL USING VACUUM CLEANER WITH HEPA FILTER, PLACE IN

CLOSED CONTAINER

WASTE DISPOSAL: REGULATIONS VARY; CONSULT LOCAL AUTHORITIES

SECTION 7: HANDLING AND STORAGE

GENERAL: AVOID INHALATION OF DUST, CONTACT WITH SKIN AND EYES. WASH AFTER

HANDLING. KEEP CONTAINER CLOSED AND DRY.

STORAGE: STORE IN DRY AREA

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

VENTILATION: USE APPROPRIATE LOCAL EXHAUST VENTILATION TO KEEP EXPOSURE LIMITS

BELOW REGULATED LEVEL

OSHA: TOTAL DUST: 15 MG/M³; RESPIRABLE FRACTION: 5MG/M³

PERSONAL PROTECTION EQUIPMENT

EYE PROTECTION: WEAR SAFETY GLASSES WITH SIDE SHIELDS

SKIN PROTECTION: WEAR GLOVES

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PROTECTIVE CLOTHING: COVERALLS

RESPIRATORY PROTECTION: NOT NORMALLY NEEDED. IF PERMISSIBLE LEVELS ARE EXCEEDED USE NIOSH APPROVED DUST RESPIRATOR

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: SOLID, SPHERICAL PARTICLES

SOFTENING PT: NA

ODOR AND APPEARANCE: WHITE, ODORLESS

PH (5% AQUEOUS SLURRY): 8.0 SPECIFIC GRAVITY 2.1

SOLUBILITY (IN WATER): HYDROPHILIC

BOILING POINT: NA
FREEZING POINT: NA
VAPOR PRESSURE: NA
EVAPORATION PT: NA
PERCENT VOLATILE: NONE

VISCOSITY: NA VAPOR DENSITY: NA

SECTION 10: STABILITY AND REACTIVITY

STABILITY: STABLE, CONDITIONS TO AVOID: NONE KNOWN

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR INCOMPATABILITY: NONE KNOWN

SECTION 11: TRANSPORTATION INFORMATION

UN NUMBER: NOT APPLICABLE

Un proper shipping name: Not regulated

UN CLASS: NOT APPLICABLE

Un packing group: Not applicable

 $G_{GVS/GGVE/RID/ADR/IMDGCODE/ICAO\mbox{-}TI\mbox{ information: not regulated}} \label{eq:gvs/ggve/rid/adr/imdgcode/icao-ti information: not regulated} Us\mbox{ rail regulations:} \mbox{ not regulated}$

Dot regulation: Not regulated

SECTION 12: TOXICOLOGICAL INFORMATION

SKIN IRRITATION: PRIMARY IRRITATION INDEX: 0.0 NON-IRRITANT.

Primary Eye Irritation: Non-Irritant. Avg. draize scores: 0.0 after 48 hours.

Accute oral toxicity: Non-toxic, LD $_{50} > 5$ G/kg (rat)

SENSITIZATION: NO DATA

ECOTOXICITY: NOT TESTED

Mobility: Not soluble in water, not mobile in soil

Persistence/degradability: Not applicable Bio-accumulation: Not applicable

WGK WATER HAZARD CLASS: NWG (NOT WATER HAZARDOUS)

SECTION 13: REGULATORY INFORMATION

NATIONAL REGISTRIES

United states: TSCA(TOXIC SUBSTANCE CONTROL ACT INVENTORY): ALL COMPONENTS

Are listed on or exempt under tsca.

EUROPE (EU): EINECS(EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL

SUBSTANCES): ALL COMPONENTS ARE LISTED ON OR EXEMPT UNDER

EINECS OR HAVE BEEN NOTIFIED TO EINECS.

CANADA: CEPA(CANADIAN ENVIRONMENTAL PROTECTION ACT): ALL COMPONENTS ARE LISTED

ON OR EXEMPT UNDER THE DSL.

JAPAN: MITI(MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY): LIST OF

existing chemical subs. No. 1-548(1-810)

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AUSTRALIA: AICS(AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES): ALL

COMPONENTS ARE LISTED UNDER THE AICS.

KOREA: ECL(EXISTING CHEMICALS LIST): ALL COMPONENTS ARE LISTED ON OR

EXEMPT UNDER THE ECL.

PHILIPPINES: PICCS(PHILIPPINE INVENTORY OF CHEMICALS AND CHEMICAL

SUBSTANCES): ALL COMPONENTS ARE LISTED ON OR EXEMPT UNDER

THE PICCS.

HAZARD CLASSIFICATION:

United kingdom: control of substances hazardous to health regulations 1994-

LISTED IN GUIDANCE NOTE EH40. CHEMICALS (HAZARD INFORMATION

AND PACKAGING FOR SUPPLY) REGULATIONS 199 LISTED.

Europe (Eu): This material is not defined as a dangerous substance

REGARDING EU DIRECTIVE 67/548/EEC AND ITS VARIOUS AMENDMENTS

AND ADAPTATIONS. REACH PRE-REGISTRATION #

17-2119401626-46-000

Canada: Not classified

Us federal regulations:

CLEAN WATER ACT (CWA, 40 CFR 116): NOT LISTED

Clean air act amendments of 1990 (caa section 112, 40 cfr 82): No components are

Listed as hazardous air pollutants. The product is not made with nor does it contain any class 1 or class 2 ozone depleting substances as defined under the 1990 amendments to the act.

Comprehensive environmental response, compensation and liability act (cercla, 40 cfr 302): the material is not a hazardous substance under cercla.

Superfund amendments and reauthorization act, title 111 (sara):

Emergency planning and community right-to-know act (epcra, 40 cfr 355): does not

CONTAIN ANY CONSTITUENTS THAT ARE IDENTIFIED AS EXTREMELY HAZARDOUS SUBSTANCES.

Sara section 311 (40 cfr 370) msds requirements: not regulated

Sara section 312 (40 cfr 370): apply if the material is present at any one time in amounts equal to or greater than 10,000 pounds.

Sara section 313 (40 cfr 372): does not contain any of the substance identified under section 313 as toxic chemicals in excess of the de minimis concentrations

NECESSARY TO BE SUBJECT TO THIS RULE.

Us state regulations

California prop 65: Not listed Us coneg legislation: Not determined

SECTION 14: OTHER INFORMATION

HAZARDOUS MATERIAL INFORMATION SYSTEM (RATINGS KEY: 4=HIGHEST HAZARD, 0=LOWEST HAZARD)

U.S.A HEALTH 1
FIRE HAZARD 0
REACTIVITY 0
PERSONAL PROTECTION E

PERSONAL PROTECTION E

EU S PHRASES S22: DO NOT BREATHE DUST S25: AVOID CONTACT WITH EYES.

S26: IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH

PLENTY OF WATER AND SEEK MEDICAL ADVICE.

S37: WEAR SUITABLE GLOVES.

REV. 4/09

Note: the statements made here are based upon technical data that energy strategy associates, inc. believes to be reliable. This information is furnished without warranty, expressed or implied, except that it is accurate to the best of the current knowledge.