



Dry Tech Aerogels (Pty) Ltd

The right coating for ultimate insulation.

Aerogel Products and Integrated Service Provider Leader in Energy Conservation and Environmental Protection Innovative Technology

Safety Data Sheet (Prod Code AER51 & AER052)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name Prime: Aerocon AC

Product description: This product is used as an additive to concrete mixtures.

Product Use Description: Concrete additive product

Supplier: Dry Tech Aerogels (Pty) Ltd, 6 Rabie Street, Prime Business Park, Unit 10, Vanderbijlpark, GT 1911 South Africa

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Emergency telephone number: +27 16 931 1640

HAZARDS IDENTIFICATION

This product is not hazardous according to EEC Directives 67/548/EEC and 99/45/EC including amendments (2001/60/EC and 2006/8/EC)

Aerogels: Appearance and Odour:

Yellow fabric material with no characteristic odour, under certain conditions, product may have faint ammonia-like odour.

Classification:

Product is not classified as a dangerous material or preparation as defined in EC Directives 67/548/EEC or 1999/45/EC. See Section 11 for a full discussion of titanium dioxide. Emergency

Overview: Inhalation of excessive amounts of dust from the product may cause mechanical irritation to the respiratory tract. Dermal contact may cause mechanical irritation.

POTENTIAL HEALTH EFFECTS Inhalation: Inhalation of airborne dusts may cause mechanical irritation of the upper respiratory tract. Eye Contact: Exposure to dust from this product can produce a drying sensation and mechanical irritation of the eyes. Skin Contact: Skin contact with dust from this product can produce a drying sensation and mechanical irritation of the skin and mucous membranes. Skin Absorption: Material will not absorb through skin. Ingestion: This material is not intended to be ingested (eaten). If ingested in large quantity, the material may produce mechanical irritation and blockage. Acute Health Hazards: Dust from this product is a

physical irritant, and may cause temporary irritation or scratchiness of the throat and / or itching and redness of the eyes and skin. Chronic Health Hazards: In 2010 (based on a 2006 Working Group meeting), the International Agency for Research on Cancer (IARC) reclassified titanium dioxide as “possibly carcinogenic to humans” (Group 2B) based on finding of carcinogenicity in experimental animals. In the Titanium Dioxide Monograph (Vol. 93), IARC concluded that there is inadequate evidence in humans for the carcinogenicity of titanium dioxide. However, see Section 11 for a full discussion. Medical Conditions Aggravated by Exposure: Excessive inhalation of dust may aggravate pre-existing chronic lung conditions including, but not limited to, bronchitis, emphysema, and asthma. Dermal contact may aggravate existing dermatitis.

INFORMATION ON INGREDIENTS

This product is a mixture. This product does not contain any substances presenting a health or environmental hazard as defined by Directive 67/548/EEC nor any substances for which there are community workplace exposure limits in concentrations equal to or greater than those laid down in Directive 99/45/EC.

FIRST AID MEASURES

Inhalation: Move to fresh air.

Skin contact: Wash with water and soap as a precaution. If skin irritation persists, call a physician.

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Eye contact: Rinse with plenty of water. If eye irritation persists, consult a specialist.

Ingestion: Drink 1 or 2 glasses of water. Consult a physician if necessary. Never give anything by mouth to an unconscious person.

Notes to physician: Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Specific hazards during firefighting: Material can splatter above 100C/212F. Dried product can burn.

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

Aerogels: NA

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Use personal protective equipment. Keep people away from and upwind of spill/leak. Material can create slippery conditions.

Environmental precautions CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Methods for cleaning up: Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

HANDLING AND STORAGE

Handling Avoid contact with eyes, skin and clothing: Wash thoroughly after handling. Keep container tightly closed. Do not breathe vapours, mist or gas. Other data: Monomer vapours can be evolved when material is heated during processing operations. See SECTION 8, for types of ventilation required.

Storage Further information on storage conditions: Keep from freezing - product stability may be affected. STIR WELL BEFORE USE. Storage temperature: -50 - 80 °C

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EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit(s)

Exposure limits are listed below, if they exist.

Exposure controls Engineering measures: Use only in area provided with appropriate exhaust ventilation.

Protective measures: Facilities storing or utilizing this material should be equipped with an eyewash facility.

Individual protection measures

Eye/face protection: Safety glasses with side-shields, Eye protection worn must be compatible with respiratory protection system employed.

Skin protection

Hand protection: The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): Neoprene gloves

Respiratory protection: Use certified respiratory protection equipment meeting EU requirements(89/656/EEC, 89/686/EEC), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

PHYSICAL AND CHEMICAL PROPERTIES

Physical state liquid Colour white milky Odour acrylic-like pH 9,5 - 10,5 Flash point Non-combustible Evaporation rate <1 Water Lower explosion limit not applicable Upper explosion limit not applicable Vapour pressure 17,0 mmHg at 20 °C Water Relative vapour density <1,0 Water Relative density 1,03 - 1,08 Water solubility Dilatable Viscosity, dynamic <100 mPa.s Percent volatility 52 - 54 % Water

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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STABILITY AND REACTIVITY

Chemical stability Stable

Hazardous reactions: None known.

Materials to avoid: There are no known materials which are incompatible with this product.

Polymerisation: Product will not undergo polymerization.

TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appears in this section when such data is available. No data are available for this material. The information shown is based on profiles of compositionally similar materials. Acute oral toxicity LD50 rat > 5 000 mg/kg

Acute dermal toxicity LD50 rabbit > 5 000 mg/kg

Skin irritation rabbit May cause transient irritation.

Eye irritation rabbit No eye irritation

ECOLOGICAL INFORMATION

Eco toxicological information on this product or its components appear in this section when such data is available. There is no data available for this product.

DISPOSAL CONSIDERATIONS

European Waste Catalogue (2000/532/EC)

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

Environmental precautions: CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

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Disposal Coagulate the emulsion by the stepwise addition of ferric chloride and lime. Remove the clear supernatant and flush to a chemical sewer. For disposal, incinerate or landfill at a permitted facility in accordance with local, state, and federal regulations.

TRANSPORT INFORMATION

Classification for ROAD and Rail transport: Not regulated for transport

Classification for SEA transport (IMO-IMDG): Not regulated for transport

Classification for AIR transport (IATA/ICAO): Not regulated for transport

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations

REGULATORY INFORMATION

Label

Classification and labelling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments (2001/60/EC and 2006/8/EC).

Hazard symbol and Indication of danger: This product is not hazardous according to EEC Directives 67/548/EEC and 99/45/EC including amendments (2001/60/EC and 2006/8/EC)

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TLV Threshold Limit Value TWA Time Weighted Average (TWA): | Bar denotes a revision from prior MSDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as an guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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