## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME**
DAVCO LANKO 173

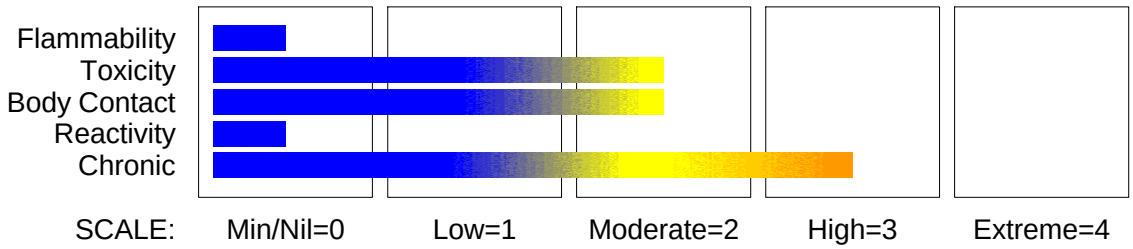
**PRODUCT USE**
Cement-based levelling compound for use over concrete sub-floors prior to application of floor coverings.

**SUPPLIER**
Company: ParexDavco
Address:
67 Elizabeth Street
Wetherill Park
NSW, 2164
Australia
Telephone: +61 2 9616 3000
Emergency Tel: 1800 039 008
Fax: +61 2 9725 5551
Email: marketing@davco.com.au
Website: www.davco.com.au

## Section 2 - HAZARDS IDENTIFICATION

**STATEMENT OF HAZARDOUS NATURE**
**HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.**

**CHEMWATCH HAZARD RATINGS**




**POISONS SCHEDULE**
None

**RISK**

| Risk Codes | Risk Phrases |
|---|---|
| R36/37/38 | • Irritating to eyes respiratory system and skin. |
| R48/20 | • Harmful: danger of serious damage to health by prolonged exposure through inhalation. |
| R49 | • May cause CANCER by inhalation. |

**SAFETY**

| Safety Codes | Safety Phrases |
|---|---|
| S01 | • Keep locked up. |
| S36 | • Wear suitable protective clothing. |
| S38 | • In case of insufficient ventilation wear suitable respiratory equipment. |
| S401 | • To clean the floor and all objects contaminated by this material use water and detergent. |
| S35 | • This material and its container must be disposed of in a safe way. |
| S13 | • Keep away from food drink and animal feeding stuffs. |

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME | CAS RN | % |
|---|---|---|
| portland cement | 65997-15-1 | 10-30 |
| silica crystalline - quartz | 14808-60-7 | 30-60 |
| calcium aluminate cement | 65997-16-2 | 1-10 |
| calcium carbonate | 471-34-1 | 10-30 |
| ingredients determined not to be hazardous | | balance |

**continued...**

## Section 4 - FIRST AID MEASURES

**SWALLOWED**
• - Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**EYE**
• If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

**SKIN**
• If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

**INHALED**
• - If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

**NOTES TO PHYSICIAN**
• Treat symptomatically.

## Section 5 - FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA**
• - There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

**FIRE FIGHTING**
• When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.
When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

**FIRE/EXPLOSION HAZARD**
• - Non combustible.
- Not considered a significant fire risk, however containers may burn., silicon dioxide (SiO2).
When aluminium oxide dust is dispersed in air, firefighters should wear protection against inhalation of dust particles, which can also contain hazardous substances from the fire absorbed on the alumina particles.
May emit poisonous fumes.
May emit corrosive fumes.

**FIRE INCOMPATIBILITY**
• None known.

**HAZCHEM**
None

**Personal Protective Equipment**
Gas tight chemical resistant suit.

## Section 6 - ACCIDENTAL RELEASE MEASURES

**MINOR SPILLS**
• - Remove all ignition sources.
- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Control personal contact by using protective equipment.

continued...

**MAJOR SPILLS**
• Moderate hazard.
- CAUTION: Advise personnel in area.
- Alert Emergency Services and tell them location and nature of hazard.
- Control personal contact by wearing protective clothing.
- Prevent, by any means available, spillage from entering drains or water courses.

**Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

## Section 7 - HANDLING AND STORAGE

**PROCEDURE FOR HANDLING**
• - Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

**SUITABLE CONTAINER**
• - Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

**STORAGE INCOMPATIBILITY**
• - Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.

**STORAGE REQUIREMENTS**
• - Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry area protected from environmental extremes.
- Store away from incompatible materials and foodstuff containers.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE CONTROLS**

| Source | Material | TWA mg/m³ | Notes |
|---|---|---|---|
| Australia Exposure Standards | Davco Lanko 173 (Silica - Amorphous Fumed silica (respirable dust)) | 2 | (see Chapter 14) |
| Australia Exposure Standards | portland cement (Portland cement (a)) | 10 | (see Chapter 14) |
| Australia Exposure Standards | silica crystalline - quartz (Silica - Crystalline Quartz) | 0.1 | (see Chapter 14) |
| Australia Exposure Standards | silica crystalline - quartz (Silica - Amorphous Fumed silica (respirable dust)) | 2 | (see Chapter 14) |
| Australia Exposure Standards | calcium carbonate (Calcium carbonate (a)) | 10 | (see Chapter 14) |

The following materials had no OELs on our records
• calcium aluminate cement: CAS:65997- 16- 2 CAS:12042- 68- 1

**PERSONAL PROTECTION**

**RESPIRATOR**
Type AX-P Filter of sufficient capacity

**EYE**
• - Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

**HANDS/FEET**
• NOTE:
- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:

**continued...**

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity.

Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.
- polychloroprene
- nitrile rubber
- butyl rubber
- fluorocaoutchouc.

**OTHER**
• - Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

• - Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory . These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.

**ENGINEERING CONTROLS**
• - Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
- If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.

Such protection might consist of:
(a): particle dust respirators, if necessary, combined with an absorption cartridge;
(b): filter respirators with absorption cartridge or canister of the right type;
(c): fresh-air hoods or masks.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE**
Grey powder with a cement-like odour; insoluble in water.

**PHYSICAL PROPERTIES**
Does not mix with water.
Sinks in water.

| | | | |
|---|---|---|---|
| State | Divided Solid | Molecular Weight | Not Applicable |
| Melting Range (℃) | Not Available | Viscosity | Not Applicable |
| Boiling Range (℃) | Not Applicable | Solubility in water (g/L) | Immiscible |
| Flash Point (℃) | Not Applicable | pH (1% solution) | Not Applica ble |
| Decomposition Temp (℃) | Not Available | pH (as supplied) | Not A pplicable |
| Autoignition Temp (℃) | Not Applicable | Vapour Pressure (kPa ) | Not Applicable |
| Upper Explosive Limit (%) | Not Applicable | Specific Gravity (water=1) | ~1.3 |
| Lower Explosive Limit (%) | Not Applicable | Relative Vapour Density (air=1) | Not Applicable |
| Volatile Component (%vol) | Not Applicable | Evaporation Rate | Not Applicable |

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

**CONDITIONS CONTRIBUTING TO INSTABILITY**
• - Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

*For incompatible materials - refer to Section 7 - Handling and Storage.*

**continued...**

## Section 11 - TOXICOLOGICAL INFORMATION

**POTENTIAL HEALTH EFFECTS**

ACUTE HEALTH EFFECTS
• Irritating to eyes, respiratory system and skin.

CHRONIC HEALTH EFFECTS
• May cause CANCER by inhalation.

• Harmful: danger of serious damage to health by prolonged exposure through inhalation.

**TOXICITY AND IRRITATION**

CALCIUM ALUMINATE CEMENT:
CALCIUM CARBONATE:
PORTLAND CEMENT:
• Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

SILICA CRYSTALLINE - QUARTZ:
CALCIUM ALUMINATE CEMENT:
CALCIUM CARBONATE:
PORTLAND CEMENT:
• unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.


• unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

• Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

PORTLAND CEMENT:


SILICA CRYSTALLINE - QUARTZ:

TOXICITY
Inhalation (human) LCLo: 0.3 mg/m³/10Y
Inhalation (human) TCLo: 16 mppcf*/8H/17.9Y
Inhalation (rat) TCLo: 50 mg/m³/6H/71W

IRRITATION
Nil Reported

• WARNING: For inhalation exposure ONLY: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS
The International Agency for Research on Cancer (IARC) has classified occupational exposures to respirable (<5 um) crystalline silica as being carcinogenic to humans . This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite.
Intermittent; focal fibrosis,
(pneumoconiosis), cough, dyspnoea
Intermittent; liver - tumours.
* Millions of particles per cubic foot (based on impinger samples counted by light field techniques).
NOTE : the physical nature of quartz in the product determines whether it is likely to present a chronic health problem. To be a hazard the material must enter the breathing zone as respirable particles.

CALCIUM ALUMINATE CEMENT:

• No data of toxicological significance identified in literature search.

CALCIUM CARBONATE:

TOXICITY
Oral (Rat) LD50: 6450 mg/kg

IRRITATION
Skin (rabbit): 500 mg/24h- Moderate
Eye (rabbit): 0.75 mg/24h - SEVERE

• The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis.
No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.

**CARCINOGEN**

| | | | |
|---|---|---|---|
| Silica, crystalline (inhaled in the form of quartz or cristobalite from occupational sources) | International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs | Group | 1 |
| Silica, amorphous | International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs | Group | 3 |

**continued...**

## Section 12 - ECOLOGICAL INFORMATION

No data

**Ecotoxicity**

| Ingredient | Persistence: Water/Soil | Persistence: Air | Bioaccumulation | Mobility |
|---|---|---|---|---|
| silica crystalline - quartz | LOW | | LOW | HIGH |

## Section 13 - DISPOSAL CONSIDERATIONS

• Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.
A Hierarchy of Controls seems to be common - the user should investigate:
- Reduction.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

## Section 14 - TRANSPORTATION INFORMATION

**HAZCHEM:**
None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

## Section 15 - REGULATORY INFORMATION

**POISONS SCHEDULE**
None

**REGULATIONS**
Regulations for ingredients

**portland cement (CAS: 65997-15-1) is found on the following regulatory lists;**
"Australia Exposure Standards","Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)","OECD Representative List of High Production Volume (HPV) Chemicals"

**silica crystalline - quartz (CAS: 14808-60-7,122304-48-7,122304-49-8,12425-26-2,1317-79-9, 70594-95-5,87347-84-0) is found on the following regulatory lists;**
"Australia - New South Wales Hazardous Substances Prohibited for Specific Uses","Australia - New South Wales Hazardous Substances Requiring Health Surveillance","Australia - South Australia Hazardous Substances Requiring Health Surveillance","Australia - Tasmania Hazardous Substances Prohibited for Specified Uses","Australia - Tasmania Hazardous Substances Requiring Health Surveillance","Australia - Western Australia Hazardous Substances Requiring Health Surveillance","Australia Exposure Standards","Australia Hazardous Substances","Australia Hazardous Substances Requiring Health Surveillance","Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)","Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs","OECD Representative List of High Production Volume (HPV) Chemicals"

**calcium aluminate cement (CAS: 65997-16-2,12042-68-1) is found on the following regulatory lists;**
"Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)"

**calcium carbonate (CAS: 471-34-1,13397-26-7,15634-14-7,1317-65-3) is found on the following regulatory lists;**
"Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)","Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines","CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP","GESAMP/EHS Composite List - GESAMP Hazard Profiles","IMO IBC Code Chapter 17: Summary of minimum requirements","International Council of Chemical Associations (ICCA) - High Production Volume List","OECD Representative List of High Production Volume (HPV) Chemicals"

**No data for Davco Lanko 173 (CW: 3390559)**

**continued...**

## Section 16 - OTHER INFORMATION

**INGREDIENTS WITH MULTIPLE CAS NUMBERS**

| Ingredient Name | CAS |
|---|---|
| silica crystalline - quartz | 14808- 60- 7, 122304- 48- 7, 122304- 49- 8, 12425- 26- 2, 1317- 79- 9, 70594- 95- 5, 87347- 84- 0 |
| calcium aluminate cement | 65997- 16- 2, 12042- 68- 1 |
| calcium carbonate | 471- 34- 1, 13397- 26- 7, 15634- 14- 7, 1317- 65- 3 |

• Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

• The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.



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*This is the end of the MSDS.*