

DAVCO F1 EXPRESS

Chemwatch Independent Material Safety Data Sheet
Issue Date: 11-Aug-2010
C9317EC

CHEMWATCH 24-4282
Version No:2.0
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

DAVCO F1 EXPRESS

PRODUCT USE

- Used according to manufacturer's directions.

SUPPLIER

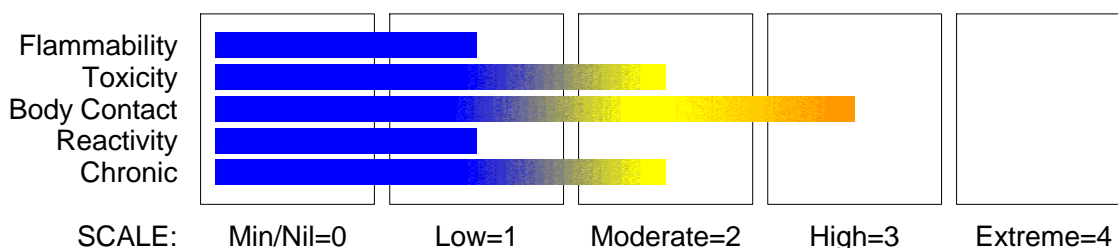
Company: ParexDavco
Address:
67 Elizabeth Street
Wetherill Park
NSW, 2164
Australia
Telephone: +61 2 9616 3000
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Fax: +61 2 9725 5551
Email: marketing@davco.com.au
Website: www.davco.com.au

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

R34

R41

Risk Phrases

- Causes burns.
- Risk of serious damage to eyes.

SAFETY

Safety Codes

S01

S22

S25

S36

S51

S09

S401

Safety Phrases

- Keep locked up.
- Do not breathe dust.
- Avoid contact with eyes.
- Wear suitable protective clothing.
- Use only in well ventilated areas.
- Keep container in a well ventilated place.
- To clean the floor and all objects contaminated by this material use water and detergent.
- Take off immediately all contaminated clothing.
- In case of accident or if you feel unwell IMMEDIATELY contact Doctor or Poisons Information Centre (show label if possible).

S27

S45

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
Rubber Crumb	None	20-30
calcium carbonate	471-34-1	20-25
portland cement	65997-15-1	15-20
polymer emulsion		10-15

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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

fly ash - low quartz	68131-74-8	5-10
graded sand	14808-60-7.	5-10
calcium aluminat cement	65997-16-2	5-10
cellulose acetate butyrate	9004-36-8	1-2

Section 4 - FIRST AID MEASURES

SWALLOWED

- - For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

EYE

- If this product comes in contact with the eyes:
 - Immediately hold eyelids apart and flush the eye continuously with 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.
 - Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
 - Transport to hospital or doctor without delay.

SKIN

- If skin or hair contact occurs:
 - Immediately flush body and clothes with large amounts of water, using safety shower if available.
 - Quickly remove all contaminated clothing, including footwear.
 - Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
 - Transport to hospital, or doctor.

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

- - 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

- - Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.
 - Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds.; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.
 - In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL).are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC)
 - A dust explosion may release of large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people.
- Combustion products include: carbon monoxide (CO), carbon dioxide (CO₂), silicon dioxide (SiO₂), other pyrolysis products typical of burning organic material.
- 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

- - Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

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Section 5 - FIRE FIGHTING MEASURES

HAZCHEM

None

Personal Protective Equipment

Gas tight chemical resistant suit.

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Clean up waste regularly and abnormal spills immediately.
- Avoid breathing dust and contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.

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

- NOTE:
 - Wet, activated carbon removes oxygen from the air thus producing a severe hazard to workers inside carbon vessels and in enclosed or confined spaces where activated carbons might accumulate.
 - Before entry to such areas, sampling and test procedures for low oxygen levels should be undertaken; control conditions should be established to ensure the availability of adequate oxygen supply.
 - 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.
- Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source.
- Do NOT cut, drill, grind or weld such containers.
 - In addition ensure such activity is not performed near full, partially empty or empty containers without appropriate workplace safety authorisation or permit.

SUITABLE CONTAINER

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

STORAGE INCOMPATIBILITY

- - Avoid reaction with oxidising agents.
- 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/m ³	Notes
Australia Exposure Standards	Davco F1 Express (Carbon black)	3	
Australia Exposure Standards	Davco F1 Express (Cellulose (paper fibre) (a))	10	(see Chapter 14)
Australia Exposure Standards	Rubber Crumb (Carbon black)	3	
Australia Exposure Standards	calcium carbonate (Calcium carbonate (a))	10	(see Chapter 14)
Australia Exposure Standards	portland cement (Portland cement (a))	10	(see Chapter 14)
Australia Exposure Standards	cellulose acetate butyrate (Cellulose (paper fibre) (a))	10	(see Chapter 14)

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

The following materials had no OELs on our records

- fly ash - low quartz: CAS:68131- 74- 8
- graded sand: CAS:14808- 60- 7
- calcium aluminate cement: CAS:65997- 16- 2 CAS:12042- 68- 1

PERSONAL PROTECTION

RESPIRATOR

Particulate

EYE

- - Chemical goggles.
- Full face shield may be required for supplementary but never for primary protection of eyes
- 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:
- 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
 - fluorocautchouc.

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

- Exhaust ventilation should be designed to prevent accumulation and recirculation in the workplace and safely remove carbon black from the air.
- Note: Wet, activated carbon removes oxygen from the air and thus presents a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Before entering such areas sampling and test procedures for low oxygen levels should be undertaken and control conditions set up to ensure ample oxygen availability.[Linde].
- Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Coloured granules with a cement-like odour; not miscible with water.

PHYSICAL PROPERTIES

Does not mix with water.
Sinks in water.

State	Divided Solid	Molecular Weight	Not Applicable
Melting Range (°C)	Not Applicable	Viscosity	Not Applicable
Boiling Range (°C)	Not Applicable	Solubility in water (g/L)	Immiscible
Flash Point (°C)	Not Applicable	pH (1% solution)	>7 (slurry)
Decomposition Temp (°C)	Not Applicable	pH (as supplied)	Not Applicable
Autoignition Temp (°C)	Not Applicable	Vapour Pressure (kPa)	Not Applicable
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	>1

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	Not Applicable
Volatile Component (%vol)	Not Available	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.*

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

- Causes burns.
- Risk of serious damage to eyes.

CHRONIC HEALTH EFFECTS

- Not applicable.

TOXICITY AND IRRITATION

PORTLAND CEMENT:

GRADED SAND:

CALCIUM ALUMINATE CEMENT:

CELLULOSE ACETATE BUTYRATE:

CALCIUM CARBONATE:

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

PORTLAND CEMENT:

CALCIUM ALUMINATE CEMENT:

CALCIUM CARBONATE:

- 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.

CALCIUM ALUMINATE CEMENT:

GRADED SAND:

- No data of toxicological significance identified in literature search.

FLY ASH - LOW QUARTZ:

RUBBER CRUMB:

- Not available. Refer to individual constituents.

- 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.

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.

PORTLAND CEMENT:

GRADED SAND:

CALCIUM ALUMINATE CEMENT:

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Section 11 - TOXICOLOGICAL INFORMATION

CELLULOSE ACETATE BUTYRATE:

TOXICITY

Oral (rat) LD50: 6400 mg/kg
Dermal (guinea pig) LD50: >1000 mg/kg [Van
Waters & Rogers]

IRRITATION

Skin (guinea pig): Slight

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

Section 12 - ECOLOGICAL INFORMATION

No data

Ecotoxicity

Ingredient

Persistence:
Water/Soil
LOW

Persistence: Air

Bioaccumulation

Mobility

cellulose acetate butyrate

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.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material)
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

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

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"

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Section 15 - REGULATORY INFORMATION

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"

fly ash - low quartz (CAS: 68131-74-8) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

graded sand (CAS: 14808-60-7) 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 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)"

cellulose acetate butyrate (CAS: 9004-36-8) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)"

No data for Davco F1 Express (CW: 24-4282)

No data for Rubber Crumb (CW: 23-0496)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
calcium carbonate	471- 34- 1, 13397- 26- 7, 15634- 14- 7, 1317- 65- 3
calcium aluminate cement	65997- 16- 2, 12042- 68- 1

• 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.