SUD-CHEMIE DRI PAX BLUE

Chemwatch Independent Material Safety Data Sheet
Issue Date: 6-Nov-2009
NC317ECP
CHEMWATCH 22-4588
Version No:2.0

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
SUD-CHEMIE DRI PAX BLUE

SYNONYMS
"Silica Gel Type: Indicating"

PRODUCT USE
Used for moisture adsorption.

SUPPLIER

Company: Sud- Chemie Australia Pty Ltd
Address:
12 Peachtree Road
Penrith
NSW 2750
AUS
Telephone: +61 2 47 321 421
Emergency Tel: +61 2 47 321 421 (9.00am to 5.00pm Monday to Friday)
Fax: +61 2 47 321 678

Section 2 - HAZARDS IDENTIFICATION

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

POISONS SCHEDULE
None

RISK

Risk Codes	Risk Phrases
R49	■ May cause CANCER by inhalation.
R52	■ Harmful to aquatic organisms.
R60	■ May impair fertility.

SAFETY

Safety Codes	Safety Phrases
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	%
silica gel	7699-41-4	>94
cobalt(II) chloride	7646-79-9	0.5 min.
water	7732-18-5	<6

Section 4 - FIRST AID MEASURES

SWALLOWED

■ - Not considered a normal route of entry.
- 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.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

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.
- 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 or hair contact occurs:
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

■ - If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

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.

- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

■ - Non combustible.
- Not considered a significant fire risk, however containers may burn.

FIRE INCOMPATIBILITY

■ None known.

HAZCHEM: None

PERSONAL PROTECTION
Glasses:
Gloves:
Respirator:
Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

Sweep up. Slippery when wet.

MAJOR SPILLS

■ - Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment.
- Prevent spillage from entering drains, sewers or water courses.
- Recover product wherever possible.
- Put residues in labelled containers for disposal.
- If contamination of drains or waterways occurs, advise emergency services.
Slippery when wet.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
■ - Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Avoid physical damage to containers.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.

SUITABLE CONTAINER
Carton.

STORAGE INCOMPATIBILITY
■ No known incompatibility with normal range of industrial materials.
- Material is hygroscopic, i.e. absorbs moisture from the air. Keep containers well sealed in storage.

STORAGE REQUIREMENTS

■ - Keep dry.
- Store under cover.
- Protect containers against physical damage.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA mg/m³	Notes
Australia Exposure Standards	silica gel (Silica - Amorphous Silica gel (a))	10	(see Chapter 14)
Australia Exposure Standards	silica gel (Silica - Amorphous Precipitated silica (a))	10	(see Chapter 14)

The following materials had no OELs on our records

- cobalt(II) chloride: CAS:7646-79-9 CAS:1332-82-7 CAS:7791-13-1
- water: CAS:7732-18-5

MATERIAL DATA

SUD-CHEMIE DRI PAX BLUE:
Not available

SILICA GEL:
■ The concentration of dust, for application of respirable dust limits, is to be determined from the fraction that penetrates a separator whose size collection efficiency is described by a cumulative log-normal function with a median aerodynamic diameter of 4.0 µm (+-) 0.3 µm and with a geometric standard deviation of 1.5 µm (+-) 0.1 µm, i.e..generally less than 5 µm.
For amorphous crystalline silica (precipitated silicic acid):
Amorphous crystalline silica shows little potential for producing adverse effects on the lung and exposure standards should reflect a particulate of low intrinsic toxicity. Mixtures of amorphous silicas/ diatomaceous earth and crystalline silica should be monitored as if they comprise only the crystalline forms.
The dusts from precipitated silica and silica gel produce little adverse effect on pulmonary functions and are not known to produce significant disease or toxic effect
IARC has classified silica, amorphous as Group 3: NOT classifiable as to its carcinogenicity to humans.
Evidence of carcinogenicity may be inadequate or limited in animal testing.

COBALT(II) CHLORIDE:
■ Epidemiological studies do not support a link between cobalt and abnormal growths (neoplasms) in humans.

In view of the serious effects seen in experimental animals after a relatively short exposure period at 0.1 mg/m3 the recommended TLV-TWA is thought to reduce the significant risk of material impairment of health posed by respiratory disease and pulmonary sensitization which have been shown to occur at higher levels of exposure. The value does not apply generally to cobalt compounds.

A significant increase in lung cancer risk was reported among workers involved in cobalt production (with concomitant exposure to nickel and arsenic) and hard-metal workers with documented exposure to cobalt-containing dusts. A significant increase in lung cancer risk has been observed in workers whose exposure began more than 20 years previously. A number of single cases of malignant tumours, mostly sarcomas, have been reported at the site, following implant of cobalt-containing orthopedic implants.

WATER:
■ No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION

EYE

■ No special equipment required due to the physical form of the product.

HANDS/FEET

■ No special equipment required due to the physical form of the product.

OTHER

■ No special equipment required due to the physical form of the product.

RESPIRATOR

■ Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half-face Respirator	Full-Face Respirator
1000	10	-AUS P	-
1000	50	-	-AUS P
5000	50	Airline *	-
5000	100	-	-2 P
10000	100	-	-3 P
	100+		Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

■ None under normal operating conditions.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

■ Material is hygroscopic, absorbs moisture from surrounding air.
Blue powder or granule or spherical beads with no odour. Insoluble in water. Supplied in small white paper sachets 7cm x 7cm and 5cm x 3cm.

PHYSICAL PROPERTIES
Does not mix with water.

Molecular Weight: Not Applicable	Boiling Range (ºC): Not Applicable	Melting Range (ºC): Not Applicable
Specific Gravity (water=1): Not Applicable	Solubility in water (g/L): Immiscible	pH (as supplied): Not Applicable
pH (1% solution): 4-9 (5% w/w in water)	Vapour Pressure (kPa): Not Applicable	Volatile Component (%vol): Not Applicable
Evaporation Rate: Not Applicable	Relative Vapour Density (air=1): Not Applicable	Flash Point (ºC): Not Applicable
Lower Explosive Limit (%): Not Applicable	Upper Explosive Limit (%): Not Applicable	Autoignition Temp (ºC): Not Applicable
Decomposition Temp (ºC): Not Available	State: Manufactured	Viscosity: Not Applicable

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY
■ Product is considered stable and hazardous polymerisation will not occur.
Material is hygroscopic, absorbs moisture from surrounding air.
For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

■ Not normally a hazard due to physical form of product.
Ingestion may result in nausea, abdominal irritation, pain and vomiting.

EYE

■ Not normally a hazard due to physical form of product.
Generated dust may be discomforting.

SKIN

■ Not normally a hazard due to physical form of product.
Generated dust may be discomforting.

INHALED

■ Not normally a hazard due to physical form of product.
Generated dust may be discomforting.

CHRONIC HEALTH EFFECTS

■ On the basis of epidemiological data, it has been concluded that prolonged inhalation of cobalt chloride in an occupational
setting, may produce cancer in humans.
Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to cobalt chloride.

TOXICITY AND IRRITATION

■ Not available. Refer to individual constituents.

SILICA GEL:
■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY	IRRITATION
Intravenous (Mouse) LD: 234 mg/kg	Eye (Rabbit) : 8.3 mg/48hr

[RTECS]

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COBALT(II) CHLORIDE:
■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY	IRRITATION
Oral (rat) LD50: 80 mg/kg Oral (child) LDLo: 1500 mg/kg	Nil Reported

WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
Investigated as a tumorigen, mutagen and reproductive effector.
Classified by EEC Directive as Category 2 Carcinogen.

WATER:
■ No significant acute toxicological data identified in literature search.

CARCINOGEN

Silica, amorphous	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	3
Cobalt and cobalt compounds (NB: Evaluated as a group)	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B
Cobalt sulfate and other soluble cobalt(II) salts	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B

SENSITISER

cobalt(II) chloride	Australia Final Report on Hazard Classification of Common Skin Sensitisers	Recommended for Hazard Classification (R43)	Yes (and R42) Anhydrous form currently listed in EU Annex 1, Directive 67/548/EEC

Section 12 - ECOLOGICAL INFORMATION

Refer to data for ingredients, which follows:

SILICA GEL:
COBALT(II) CHLORIDE:
■ DO NOT discharge into sewer or waterways.

SUD-CHEMIE DRI PAX BLUE:
SILICA GEL:
■ For silica amorphous:
Amorphous silica is chemically and biologically inert. It is not biodegradable. Due to its insolubility in water there is a
separation at every filtration and sedimentation process.]
Crystalline and/or amorphous silicas are ubiquitous on the earth in soils and sediments, and in living organisms (e.g. diatoms),
but only the dissolved form is bioavailable. On a global scale, the level of man-made synthetic amorphous silicas (SAS)
represents up to 2.4% of the dissolved silica naturally present in the aquatic environment.
Ecotoxicity:
Based on available data, SAS is not toxic to environmental organisms (apart from physical desiccation in insects). SAS presents
a low risk for adverse effects to the environment.

COBALT(II) CHLORIDE:
■ Hazardous Air Pollutant: Yes

■ Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
■ Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark.
Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.
Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
Sud-Chemie Dri Pax Blue		No data		
silica gel	HIGH	No data	LOW	HIGH
cobalt(II) chloride	HIGH	No data	LOW	HIGH
water	LOW	No data	LOW	HIGH

Section 13 - DISPOSAL CONSIDERATIONS

■ - 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

silica gel (CAS: 7699-41-4,63231-67-4,112926-00-8) is found on the following regulatory lists;
"Australia - Western Australia Hazardous Substances Prohibited for Specified Uses or Methods of Handling","Australia Inventory of Chemical Substances (AICS)"

cobalt(II) chloride (CAS: 7646-79-9,1332-82-7,7791-13-1) is found on the following regulatory lists;
"Australia Hazardous Substances","Australia Inventory of Chemical Substances (AICS)","International Chemical Secretariat (ChemSec) REACH SIN* List (*Substitute It Now!) 1.0"

water (CAS: 7732-18-5) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS)","GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships","IMO IBC Code Chapter 18: List of products to which the Code does not apply","OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Sud-Chemie Dri Pax Blue (CW: 22-4588)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
silica gel	7699-41-4, 63231-67-4, 112926-00-8
cobalt(II) chloride	7646-79-9, 1332-82-7, 7791-13-1

■ 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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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This is the end of the MSDS.