



# HURST 221 LIQUID COBALT DRIER

Chemwatch Independent Material Safety Data Sheet

Issue Date: 11-Dec-2009

XC9317EC

CHEMWATCH 50854

Version No:4

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Section 2 - HAZARDS IDENTIFICATION

S60 instructions/Safety data sheets.  
■ This material and its container must be disposed of as hazardous waste.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
white spirit	8052-41-3.	>60
cobalt(II) naphthenate	61789-51-3	20-40

## Section 4 - FIRST AID MEASURES

### SWALLOWED

- - 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.
- Avoid giving milk or oils.
- Avoid giving alcohol.
- If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

### 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.

### SKIN

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).

### INHALED

- - If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

### NOTES TO PHYSICIAN

- Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:
  - Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
  - Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> 50 mm Hg) should be intubated.
  - Chronic exposures to cobalt and its compounds results in the so-called "hard metal pneumoconiosis" amongst industrial workers. The lesions consist of nodular conglomerate shadows in the lungs, together with peribronchial infiltration. The disease may be reversible. The acute form of the disease resembles a hypersensitivity reaction with malaise, cough and wheezing; the chronic form progresses to cor pulmonale.
  - Chronic therapeutic administration may cause goiter and reduced thyroid activity.

## Section 5 - FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

- - Water spray or fog.
  - Alcohol stable foam.
- Do not use a water jet to fight fire.

### FIRE FIGHTING

- - Alert Fire Brigade and tell them location and nature of hazard.
  - May be violently or explosively reactive.
- When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 500 metres in all directions.

### FIRE/EXPLOSION HAZARD

- - Liquid and vapour are flammable.
  - Moderate fire hazard when exposed to heat or flame.
- Combustion products include: carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), metal oxides, other pyrolysis products typical of burning organic material.

### FIRE INCOMPATIBILITY

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

HAZCHEM: 3[Y]E

### Personal Protective Equipment

Gas tight chemical resistant suit.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

### MINOR SPILLS

- - Remove all ignition sources.
- Clean up all spills immediately.

### MAJOR SPILLS

- - Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.

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

## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

- - Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- DO NOT allow clothing wet with material to stay in contact with skin.
- Electrostatic discharge may be generated during pumping - this may result in fire.
- Ensure electrical continuity by bonding and grounding (earthing) all equipment.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure occurs.

### SUITABLE CONTAINER

- - Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.
- For materials with a viscosity of at least 2680 cSt. (23 deg. C).

### STORAGE INCOMPATIBILITY

- - Avoid reaction with oxidising agents.

### STORAGE REQUIREMENTS

- - Store in original containers in approved flammable liquid storage area.
- Store away from incompatible materials in a cool, dry, well-ventilated area.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Source	Material	TWA mg/m <sup>3</sup>	Notes
Australia Exposure Standards	Hurst 221 Liquid Cobalt Drier (White spirits)	790	(see Chapter 16)
Australia Exposure Standards	Hurst 221 Liquid Cobalt Drier (Petrol (gasoline))	900	(see Chapter 16)
Australia Exposure Standards	white spirit (White spirits)	790	(see Chapter 16)
Australia Exposure Standards	white spirit (Petrol (gasoline))	900	(see Chapter 16)

The following materials had no OELs on our records

- cobalt(II) naphthenate:

CAS:61789- 51- 3

### PERSONAL PROTECTION

#### RESPIRATOR

Type A Filter of sufficient capacity

#### EYE

- - Safety glasses with side shields.
- Chemical goggles.

#### HANDS/FEET

- - Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.

#### 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. Factors such as:

- frequency and duration of contact,

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

- chemical resistance of glove material,

### OTHER

- - Overalls.
- PVC Apron.
- Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
- For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets), non sparking safety footwear.

### ENGINEERING CONTROLS

- For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Thin purple flammable liquid with a pleasant petroleum odour; not miscible with water.

### PHYSICAL PROPERTIES

Does not mix with water.  
Floats on water.

Molecular Weight: Not applicable  
Specific Gravity (water=1): 0.96

Boiling Range (°C): >148

Solubility in water (g/L):

Immiscible

Melting Range (°C): Not available

pH (as supplied): Not applicable

pH (1% solution): Not applicable

Vapour Pressure (kPa): Not available

Relative Vapour Density

(air=1): 4.9

Volatile Component (%vol): Not available

Flash Point (°C): 40

Evaporation Rate: Not available

Lower Explosive Limit (%): 1.0

Upper Explosive Limit (%): 6.0

Autoignition Temp (°C): Not available

Decomposition Temp (°C): Not Available

State: LIQUID

Viscosity: Not Available

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

- - Presence of incompatible materials.
  - Product is considered stable.
- For incompatible materials - refer to Section 7 - Handling and Storage.*

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

- Harmful if swallowed.
- Irritating to skin.
- HARMFUL- May cause lung damage if swallowed.
- Vapours may cause dizziness or suffocation.
- Vapours may cause drowsiness and dizziness.

#### CHRONIC HEALTH EFFECTS

- Limited evidence of a carcinogenic effect.

### TOXICITY AND IRRITATION

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

■ Lifetime exposure of rodents to gasoline produces carcinogenicity although the relevance to humans has been questioned. Gasoline induces kidney cancer in male rats as a consequence of accumulation of the alpha2-microglobulin protein in hyaline droplets in the male (but not female) rat kidney. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

#### WHITE SPIRIT:

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

#### TOXICITY

Inhalation (human) TLo: 600 mg/m<sup>3</sup>/8h

Oral (rat) LD50: >5000 mg/kg

Inhalation (rat) LC50: >5500 mg/m<sup>3</sup>/4h

- Lifetime exposure of rodents to gasoline produces carcinogenicity although the relevance to humans has been questioned. Gasoline induces kidney cancer in male rats as a consequence of accumulation of the alpha2-microglobulin protein in hyaline droplets in the male (but not female) rat kidney. white spirit, as CAS RN 8052-41-3

#### IRRITATION

Nil Reported

Eye (human): 470 ppm/15m

Eye (rabbit): 500 mg/24h Moderate

#### COBALT(II) NAPHTHENATE:

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

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## Section 11 - TOXICOLOGICAL INFORMATION

### TOXICITY

Oral (rat) LD50: 3900 mg/kg

■ The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

### IRRITATION

Eye (rabbit): 10 mg/24h - Mild

### CARCINOGEN

Gasoline (NB: Overall evaluation upgraded from 3 to 2B with supporting evidence from other relevant data)

International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs

Group

2B

Crude oil

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

## Section 12 - ECOLOGICAL INFORMATION

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This material and its container must be disposed of as hazardous waste.

Avoid release to the environment.

Refer to special instructions/ safety data sheets.

### Ecotoxicity

Ingredient

Persistence:  
Water/Soil

Persistence:  
Air  
No data  
No data  
No data

Bioaccumulation

Mobility

Hurst 221 Liquid Cobalt Drier  
white spirit  
cobalt(II) naphthenate

### GESAMP/EHS COMPOSITE LIST - GESAMP Hazard Profiles

Name / EHS TRN A1a A1b A1 A2 B1 B2 C1 C2 C3 D1 D2 D3 E1 E2 E3  
Cas No /  
RTECS No

RTECS~ / RTE RTE RTE RTE RTE RTE RTE RTE RTE RTE RTE RTE RTE RTE RTE RTE RTE  
1990 CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~ CS~

Legend:  
EHS=EHS Number (EHS=GESAMP Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships) NRT=Net Register Tonnage, A1a=Bioaccumulation log Pow, A1b=Bioaccumulation BCF, A1=Bioaccumulation, A2=Biodegradation, B1=Acuteaquatic toxicity LC/ECIC50 (mg/l), B2=Chronic aquatic toxicity NOEC (mg/l), C1=Acute mammalian oral toxicity LD50 (mg/kg), C2=Acute mammalian dermal toxicity LD50 (mg/kg), C3=Acute mammalian inhalation toxicity LC50 (mg/kg), D1=Skin irritation & corrosion, D2=Eye irritation & corrosion, D3=Long-term health effects, E1=Tainting, E2=Physical effects on wildlife & benthic habitats, E3=Interference with coastal amenities,  
For column A2: R=Readily biodegradable, NR=Not readily biodegradable.  
For column D3: C=Carcinogen, M=Mutagenic, R=Reprotoxic, S=Sensitising, A=Aspiration hazard, T=Target organ systemic toxicity, L=Lunginjury, N=Neurotoxic, I=Immunotoxic.  
For column E1: NT=Not tainting (tested), T=Tainting test positive.  
For column E2: Fp=Persistent floater, F=Floater, S=Sinking substances.  
The numerical scales start from 0 (no hazard), while higher numbers reflect increasing hazard.  
(GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships)

## Section 13 - DISPOSAL CONSIDERATIONS

- - Containers may still present a chemical hazard/ danger when empty.
  - Return to supplier for reuse/ recycling if possible.
- Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.
- 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.
  - 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.

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## Section 14 - TRANSPORTATION INFORMATION

Labels Required: FLAMMABLE LIQUID

HAZCHEM: 3[Y]E (ADG6)

### Land Transport UNDG:

Class or division:	3	Subsidiary risk:	None
UN No.:	1993	UN packing group:	III
Shipping Name: FLAMMABLE LIQUID, N.O.S. (contains white spirit)			

### Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1993	Packing Group:	III
Special provisions:	A3		
Shipping Name: FLAMMABLE LIQUID, N.O.S. *(CONTAINS WHITE SPIRIT)			

### Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1993	Packing Group:	III
EMS Number:	F- E, S- E	Special provisions:	223 274 330 944 955
Limited Quantities:	5 L	Marine Pollutant:	Yes
Shipping Name: FLAMMABLE LIQUID, N.O.S.(contains white spirit)			

GESAMP hazard profiles for this material can be found in section 12 of the MSDS.

## Section 15 - REGULATORY INFORMATION

### POISONS SCHEDULE: S5

### REGULATIONS

Regulations for ingredients

#### white spirit (CAS: 8052-41-3,8042-47-5) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)", "GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

#### cobalt(II) naphthenate (CAS: 61789-51-3) 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 MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Hurst 221 Liquid Cobalt Drier (CW: 50854)

## Section 16 - OTHER INFORMATION

### INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
white spirit	8052- 41- 3, 8042- 47- 5

■ 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](http://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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Section 16 - OTHER INFORMATION

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*This is the end of the MSDS.*