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CREOSOTE FOR TIMBER TREATMENT

Chemwatch Independent Material Safety Data Sheet

Issue Date: 1-Feb-2011

C9317EC

CHEMWATCH 4746-94

Version No:2.0

CD 2010/4 Page 1 of 6

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

CREOSOTE FOR TIMBER TREATMENT

SYNONYMS

Creosote, "Brick Oil", "Coal Tar Oil"

PROPER SHIPPING NAME

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(contains 2-methylnaphthalene)

PRODUCT USE

■ Used according to manufacturer's directions.

Wood preservative.

SUPPLIER

Company: Quantum Chemicals Pty Ltd

Address:

70 Quantum Close, Quantum Industrial Park

Dandenong South

VIC, 3175

Australia

Telephone: +61 3 8795 8000

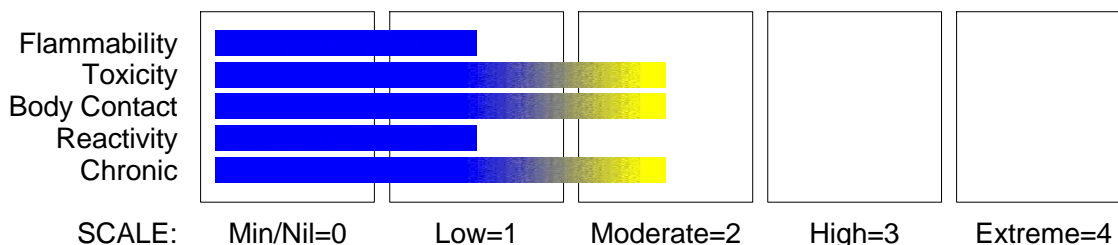
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Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

CHEMWATCH HAZARD RATINGS



RISK

Risk Codes

R22

R36/37/38

R43

R51/53

Risk Phrases

• Harmful if swallowed.

• Irritating to eyes, respiratory system and skin.

• May cause SENSITISATION by skin contact.

• Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY

Safety Codes

S36

S401

S35

S13

Safety Phrases

• Wear suitable protective clothing.

• To clean the floor and all objects contaminated by this material, use water and detergent.

• This material and its container must be disposed of in a safe way.

• Keep away from food, drink and animal feeding stuffs.

continued...

CREOSOTE FOR TIMBER TREATMENT

Chemwatch Independent Material Safety Data Sheet

Issue Date: 1-Feb-2011

C9317EC

CHEMWATCH 4746-94

Version No:2.0

CD 2010/4 Page 2 of 6

Section 2 - HAZARDS IDENTIFICATION

S46	• If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).
S57	• Use appropriate container to avoid environmental contamination.
S61	• Avoid release to the environment. Refer to special instructions/Safety data sheets.
S60	• This material and its container must be disposed of as hazardous waste.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
heavy oil		15
anthracene fraction oil		20
carbolic oil		10
deacenaphthane oil		25
2- methylnaphthalene	91-57-6	30

Source of creosote is from coal.

Section 4 - FIRST AID MEASURES

SWALLOWED

■ - IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.

- For advice, contact a Poisons Information Centre or a doctor.

- Urgent hospital treatment is likely to be needed.

- In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.

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.

- Prosthesis 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

■ for naphthalene intoxication: Naphthalene requires hepatic and microsomal activation prior to the production of toxic effects. Liver microsomes catalyse the initial synthesis of the reactive 1,2-epoxide intermediate which is subsequently oxidised to naphthalene dihydrodiol and alpha-naphthol.

- Induce emesis and/or perform gastric lavage with large amounts of warm water where oral poisoning is suspected.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

■ - Foam.

- Dry chemical powder.

- BCF (where regulations permit).

- Carbon dioxide.

FIRE FIGHTING

■ - Alert Fire Brigade and tell them location and nature of hazard.

- Wear breathing apparatus plus protective gloves.

- Prevent, by any means available, spillage from entering drains or water courses.

- Use water delivered as a fine spray to control fire and cool adjacent area.

When any large container (including road and rail tankers) is involved in a fire,

consider evacuation by 100 metres in all directions.

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CREOSOTE FOR TIMBER TREATMENT

Chemwatch Independent Material Safety Data Sheet

Issue Date: 1-Feb-2011

C9317EC

CHEMWATCH 4746-94

Version No:2.0

CD 2010/4 Page 3 of 6

Section 5 - FIRE FIGHTING MEASURES

FIRE/EXPLOSION HAZARD

- - Combustible.
- Slight fire hazard when exposed to heat or flame.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).
- Combustion products include: carbon monoxide (CO), carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.
- Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

FIRE INCOMPATIBILITY

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

HAZCHEM

•3Z

Personal Protective Equipment

Breathing apparatus.

Gas tight chemical resistant suit.

Limit exposure duration to 1 BA set 30 mins.

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Environmental hazard - contain spillage.
- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety goggles.
- Trowel up/scrape up.

MAJOR SPILLS

- - Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Environmental hazard - contain spillage.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Contains low boiling substance:
- Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.
- Check for bulging containers.
- Vent periodically
- Always release caps or seals slowly to ensure slow dissipation of vapours.
- 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

- - Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

- For alkyl aromatics:
The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. The most common and dominant one is the attack by oxidation at benzylic carbon as the intermediate formed is stabilised by resonance structure of the ring.
- Following reaction with oxygen and under the influence of sunlight, a hydroperoxide at the alpha-position to the aromatic ring, is the primary oxidation product formed (provided a hydrogen atom is initially available at this position) - this product is often short-lived but may be stable dependent on the nature of the aromatic substitution; a secondary C-H bond is more easily attacked than a primary C-H bond whilst a tertiary C-H bond is even more susceptible to attack by oxygen
- Monoalkylbenzenes may subsequently form monocarboxylic acids; alkyl naphthalenes mainly produce the corresponding naphthalene carboxylic acids.
- Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents.
- Aromatics can react exothermically with bases and with diazo compounds.

STORAGE REQUIREMENTS

- - Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

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CREOSOTE FOR TIMBER TREATMENT

Chemwatch Independent Material Safety Data Sheet
Issue Date: 1-Feb-2011
C9317EC

CHEMWATCH 4746-94
Version No:2.0
CD 2010/4 Page 4 of 6

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

- 2- methylnaphthalene:

CAS:91- 57- 6

PERSONAL PROTECTION

RESPIRATOR

Type A 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

- - 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.

OTHER

- - Overalls.

- P.V.C. apron.

- Barrier cream.

- Skin cleansing cream.

ENGINEERING CONTROLS

- Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Dark brown to black viscous liquid with a characteristic odour; not miscible with water.

PHYSICAL PROPERTIES

Does not mix with water.

Sinks in water.

State	Non Slump Paste	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Available
Boiling Range (°C)	235- 355	Solubility in water (g/L)	Immiscible
Flash Point (°C)	70 (min)	pH (1% solution)	Not Available
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Available
Autoignition Temp (°C)	Not Available	Vapour Pressure (kPa)	0.13 @30C
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	1.00- 1.13
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	5- 6
Volatile Component (%vol)	Not Available	Evaporation Rate	Not Available

2- methylnaphthalene

log Kow (Sangster 1997):

4

Section 10 - STABILITY AND REACTIVITY

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.

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CREOSOTE FOR TIMBER TREATMENT

Chemwatch Independent Material Safety Data Sheet

Issue Date: 1-Feb-2011

C9317EC

CHEMWATCH 4746-94

Version No:2.0

CD 2010/4 Page 5 of 6

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

- Harmful if swallowed.
- Irritating to eyes, respiratory system and skin.

CHRONIC HEALTH EFFECTS

- May cause SENSITISATION by skin contact.

TOXICITY AND IRRITATION

- 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.

■ Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.

CREOSOTE FOR TIMBER TREATMENT:

TOXICITY

Oral (Rat) LD50: 750 mg/kg

IRRITATION

2-METHYLNAPHTHALENE:

TOXICITY

Oral (rat) LD50: 1630 mg/kg

IRRITATION

Nil Reported

Section 12 - ECOLOGICAL INFORMATION

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	Bioaccumulation	Mobility
2- methylnaphthalene	HIGH		MED	MED

Section 13 - DISPOSAL CONSIDERATIONS

- - Containers may still present a chemical hazard/ danger when empty.

- Return to supplier for reuse/ recycling if possible.

Otherwise:

- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.

- Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

- Recycle wherever possible or consult manufacturer for recycling options.

- Consult State Land Waste Authority for disposal.

- Bury or incinerate residue at an approved site.

- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

- *Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082*

are not subject to this Code when transported by road or rail in;

(a) packagings;

(b) IBCs; or

(c) any other receptacle not exceeding 500 kg(L).

- Australian Special Provisions (SP AU01) - ADG Code 7th Ed.

Labels Required: MISCELLANEOUS

HAZCHEM:

●3Z (ADG7)

ADG7:

Class or division:

9

Subsidiary risk:

None

UN No.:

3082

UN packing group:

III

Special provisions:

274; 331; 335

Packing Instructions:

None

continued...

CREOSOTE FOR TIMBER TREATMENT

Chemwatch Independent Material Safety Data Sheet

Issue Date: 1-Feb-2011

C9317EC

CHEMWATCH 4746-94

Version No:2.0

CD 2010/4 Page 6 of 6

Section 14 - TRANSPORTATION INFORMATION

Limited quantities: 5 L Portable tanks and bulk containers - T4
Instructions:
Portable tanks and bulk containers - Special provisions: TP1; TP29 Packagings and IBCs - P001; IBC03; LP01
Packing instruction:
Packagings and IBCs - PP1
Special packing provisions:
Name and description: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Land Transport UNDG:

Class or division: 9 Subsidiary risk: None
UN No.: 3082 UN packing group: III
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains 2-methylnaphthalene)

Air Transport IATA:

ICAO/IATA Class: 9 ICAO/IATA Subrisk: None
UN/ID Number: 3082 Packing Group: III
Special provisions: A97

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. *(CONTAINS 2-METHYLNAPHTHALENE)

Maritime Transport IMDG:

IMDG Class: 9 IMDG Subrisk: None
UN Number: 3082 Packing Group: III
EMS Number: F- A , S- F Special provisions: 179 274 335 909
Limited Quantities: 5 L Marine Pollutant: Yes
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE S7

REGULATIONS

Regulations for ingredients

2-methylnaphthalene (CAS: 91-57-6) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD Representative List of High Production Volume (HPV) Chemicals", "OSPAR Substances removed from the List of Substances of Possible Concern"

No data for Creosote for Timber Treatment (CW: 4746-94)

Section 16 - OTHER INFORMATION

ND

Substance	CAS	Suggested codes
2- methylnaphthalene	91- 57- 6	

■ 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.