

ANDREW CREOSOTE

Chemwatch Material Safety Data Sheet
 For Domestic Use Only.
 Issue Date: 27-Sep-2008
 XC9477SD

CHEMWATCH 25385
 Version No:5
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ANDREW CREOSOTE

STATEMENT OF HAZARDOUS NATURE

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

OTHER NAMES

"Coke creosote", "heavy oil", "liquid pitch oil", "naphthalene oil", "tar oil creosote", "Anthracene oil", "coal tar creosote", croesotum, "dead oil", Pixalbol, "wash oil", "creosote AS 1143 Type 1", "cresylic creosote", "brick oil", "Sakresote 100"

PROPER SHIPPING NAME

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(contains creosote, coal tar)

PRODUCT USE

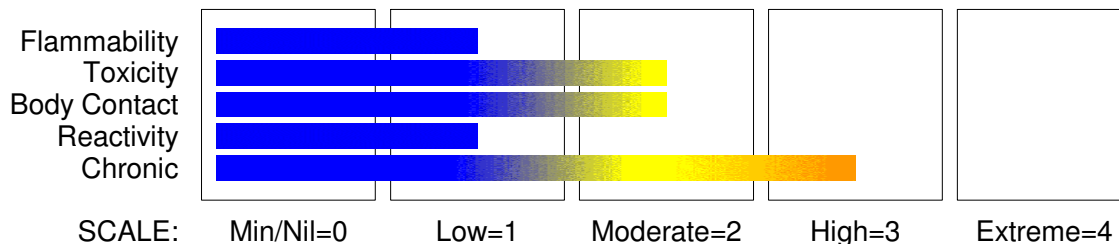
A preservative to protect rail sleepers, electric and telegraph poles against moisture, fungus and termites. Usually applied by pressure/vacuum impregnation where the heated creosote is forced by pressure into the timber. Circumstances may cause treated timber to exude creosote. This may happen after extended ageing. All personal contact should be avoided and care should be taken when sawing or drilling treated timber that all dust is contained.

SUPPLIER

Company: Damar Industries Limited
 Address:
 Eastgate Business Park
 800 Te Ngae Road
 Rotorua
 Telephone: +64 7 345 6007
 Emergency Tel: 0800 2436 2255
 Emergency Tel: 0800 CHEMCALL
 Fax: +64 7 345 6019

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS



GHS Classification

Acute Aquatic Hazard Category 1
 Acute Toxicity (Oral) Category 4
 Carcinogen Category 1B
 Eye Irritation Category 2A
 Flammable Liquid Category 4
 Respiratory Irritation Category 3
 Skin Corrosion/Irritation Category 2
 Skin Sensitizer Category 1

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Section 2 - HAZARDS IDENTIFICATION



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by Chemwatch using GHS/HSNO criteria:

3.1D 6.1D 6.3A 6.4A 6.5B 6.7A 9.3C 9.1A

May cause respiratory irritation

Combustible Liquid

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

May cause allergic skin reaction

May cause CANCER

Harmful to terrestrial vertebrates

Very toxic to aquatic life

PRECAUTIONARY STATEMENTS

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Use personal protective equipment as required.

Response

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue

rinsing.

IF exposed or concerned: Get medical advice/ attention.

Call a POISON CENTER or doctor/physician if you feel unwell.

Rinse mouth.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

Collect spillage.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
creosote, coal tar	8001-58-9	>98
A by- product of the coke making process. Creosote is a complex mixture with between 162 and 200 components. The composition is variable but includes:		
cresols	1319-77-3	<5
phenol	108-95-2	
coal tar pitch volatiles	65996-93-2	
anthracene	120-12-7	<10
creosol	93-51-6	<10

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Section 4 - FIRST AID MEASURES

NEW ZEALAND POISONS INFORMATION CENTRE 0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111

SWALLOWED

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

SKIN

- » If skin contact occurs:
 - Immediately remove all contaminated clothing, including footwear.
 - Flush skin and hair with running water (and soap if available).
- In case of burns:
- Immediately apply cold water to burn either by immersion or wrapping with saturated clean cloth.
 - DO NOT remove or cut away clothing over burnt areas. DO NOT pull away clothing which has adhered to the skin as this can cause further injury.
- Apply broad spectrum UV blockout cream to affected areas. Keep out of sun. For removal from sensitive skin areas, use cotton wool pad soaked in castor oil.

INHALED

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

NOTES TO PHYSICIAN

- » Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
 - Wear full body protective clothing with breathing apparatus.
- When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 100 metres in all directions.

FIRE/EXPLOSION HAZARD

- Combustible.
 - Slight fire hazard when exposed to heat or flame.
- Combustion products include: carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.
CARE: Contamination of heated / molten liquid with water may cause violent steam explosion, with scattering of hot contents.

FIRE INCOMPATIBILITY

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

Personal Protective Equipment

Gas tight chemical resistant suit.

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Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

» Environmental hazard - contain spillage.

Slippery when spilt.

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.

MAJOR SPILLS

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

Environmental hazard - contain spillage.

Slippery when spilt.

- DO NOT touch the spill material.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- DO NOT allow clothing wet with material to stay in contact with skin.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.

SUITABLE CONTAINER

- Metal can or drum
- Packaging as recommended by manufacturer.

STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material		TWA ppm	TWA mg/m ³
New Zealand Workplace Exposure Standards (WES)	creosote, coal tar (Coal tar pitch volatiles as benzene solubles)		0.2	
New Zealand Workplace Exposure Standards (WES)	creols (Cresol, all isomers)	5	22	
New Zealand Workplace Exposure Standards (WES)	creols (Copper fume)		0.2	
New Zealand Workplace Exposure Standards (WES)	phenol (Phenol)	5	19	
New Zealand Workplace Exposure Standards (WES)	coal tar pitch volatiles (Coal tar pitch volatiles as benzene solubles)		0.2	

The following materials had no OELs on our records

- anthracene:
- creosol:

CAS:120- 12- 7
CAS:93- 51- 6

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

» NOTE H: Special requirements exist in relation to classification and labelling of this substance. This note applies to certain coal- and oil -derived substances and to certain entries for groups of substances in Annex I. European Union (EU) List of

Dangerous Substances (Annex I) - up to the 29th ATP.

» NOTE M: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0.005% w/w

benzo[a]pyrene. This note applies only to certain complex oil-derived substances in Annex I.

PERSONAL PROTECTION



RESPIRATOR

Type A-P 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,
 - chemical resistance of glove material.
- When handling hot materials wear heat resistant, elbow length gloves.
- Rubber gloves are not recommended when handling hot objects, materials.
- Protective gloves eg. Leather gloves or gloves with Leather facing.
- DO NOT use solvent to clean the skin.

OTHER

- Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area.
- Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted.
- Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood.
- Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.
- When handling hot or molten liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.
- Usually handled as molten liquid which requires worker thermal protection and increases hazard of vapour exposure.
- CAUTION: Vapours may be irritating.
- Overalls.
- P.V.C. apron.

ENGINEERING CONTROLS

- Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area.
- Work should be undertaken in an isolated system such as a "glove-box" . Employees should wash their hands and arms upon

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

completion of the assigned task and before engaging in other activities not associated with the isolated system.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Brown to black liquid with a strong tar odour. Does not mix with water. Evaporation rate is slow. (< 1 when butyl acetate = 1)
Miscible with alcohol, hydrocarbon solvents, benzene and toluene. Material contains coal tar pitch volatiles, cresols, phenol, anthracene. Australian commercial creosote is coal tar origin from coking. Non commercial Wood creosote is formed from incomplete combustion of wood and contains PAH's but does not contain any substantial amount of phenols.

PHYSICAL PROPERTIES

Liquid.
Does not mix with water.
Sinks in water.

Molecular Weight: Not applicable.
Melting Range (°C): Not available.
Solubility in water (g/L): Immiscible
pH (1% solution): Not available
Volatile Component (%vol): Not available.
Relative Vapour Density (air=1): > 1
Lower Explosive Limit (%): Not available.
Autoignition Temp (°C): 336
State: Liquid

Boiling Range (°C): > 180
Specific Gravity (water=1): 1.08 - 1.10 @ 15
pH (as supplied): Not applicable
Vapour Pressure (kPa): 0.13 @ 30 C.
Evaporation Rate: < 1 BuAc=1
Flash Point (°C): > 66
Upper Explosive Limit (%): Not available.
Decomposition Temp (°C): Not available.
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 in contact with skin and ifswallowed.
- » Irritating to eyes and skin.
- » Inhalation may produce health damage*.

- » May produce discomfort of therespiratory system*.
- » * (limited evidence).

CHRONIC HEALTH EFFECTS

- » May cause CANCER.
- » Possible skin sensitiser*.
- » Cumulative effects may result following exposure*.
- » * (limited evidence).

TOXICITY AND IRRITATION

» The production of wood creosote, coal tar creosote, coal tar, coal tar pitch, and coal tar pitch volatiles, stems from the incomplete combustion or pyrolysis of carbon-containing materials. Creosotes, coal tar, coal tar pitch, and coal tar pitch volatiles are composed of many individual compounds of varying physical and chemical characteristics.

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

CARCINOGEN

creosote, coal tar	International Agency for Research on Cancer (IARC) Carcinogens	Group	2A
phenol	International Agency for Research on Cancer (IARC) Carcinogens	Group	3
coal tar pitch volatiles	International Agency for Research on Cancer (IARC) Carcinogens	Group	1
anthracene	International Agency for Research on Cancer (IARC) Carcinogens	Group	3

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Section 11 - TOXICOLOGICAL INFORMATION

SKIN			
creosols	New Zealand Workplace Exposure Standards (WES) - Skin	Notes	Skin
phenol	New Zealand Workplace Exposure Standards (WES) - Skin	Notes	Skin

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.

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle where possible
 Otherwise ensure that:
- licenced contractors dispose of the product and its container.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: MISCELLANEOUS
HAZCHEM: None

UNDG:

Dangerous Goods Class:	9	Subrisk:	None
UN Number:	3082	Packing Group:	III
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains creosote, coal tar)			

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 CREOSOTE, COAL TAR)			

Maritime Transport IMDG:

IMDG Class:	9	IMDG Subrisk:	None
UN Number:	3082	Packing Group:	III
EMS Number:	F- A, S- F	Special provisions:	274 909 944
Limited Quantities:	5 L	Marine Pollutant:	Not Determined
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(contains creosote, coal tar)			

Section 15 - REGULATORY INFORMATION

REGULATIONS

creosote, coal tar (CAS: 8001-58-9) is found on the following regulatory lists;
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
IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products
International Agency for Research on Cancer (IARC) Carcinogens
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

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Section 15 - REGULATORY INFORMATION

OECD Representative List of High Production Volume (HPV) Chemicals

creosote, coal tar (CAS: 61789-28-4) is found on the following regulatory lists;
GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products
International Agency for Research on Cancer (IARC) Carcinogens
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)
OECD Representative List of High Production Volume (HPV) Chemicals

creosote, coal tar (CAS: 65996-91-0) is found on the following regulatory lists;
GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products
International Agency for Research on Cancer (IARC) Carcinogens
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)
OECD Representative List of High Production Volume (HPV) Chemicals
Specific advice on controls required for materials used in New Zealand can be found at
<http://www.ermanz.govt.nz/search/registers.html>

Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE
0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111

Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
anthracene	120- 12- 7	N; R50/53
creosol	93- 51- 6	Xn; R22 R43

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
creosote, coal tar	8001- 58- 9, 61789- 28- 4, 65996- 91- 0

» 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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