

CIRCOIL & CIRCOIL NTRM - ISO 150, 220, 320 & 460

Chemwatch Material Safety Data Sheet
Issue Date: 22-May-2009
NC317ECP

CHEMWATCH 21-2208
Version No:2.0
CD 2009/1 Page 1 of 9

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

CIRCOIL ISO 150, 220, 320 & 460
CIRCOIL NTRM ISO 150, 220, 320 & 460

PRODUCT USE

Circulating oil.

SUPPLIER

Company: Anglo Design
Address:
2 Beaumont Road
Mount Kuringai
NSW, 2080
AUS
Telephone: +61 2 9457 8566
Fax: +61 2 9457 8057

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

POISONS SCHEDULE

None

RISK

None under normal operating conditions.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
residual oils, petroleum, solvent dewaxed	64742-62-7.	>50
paraffinic distillate, heavy, solvent- dewaxed (severe)	64742-65-0.	10-50
additive nonhazardous		<1

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.
- 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.

continued...

CIRCOIL & CIRCOIL NTRM - ISO 150, 220, 320 & 460

Chemwatch Material Safety Data Sheet
Issue Date: 22-May-2009
NC317ECP

CHEMWATCH 21-2208
Version No:2.0
CD 2009/1 Page 2 of 9
Section 4 - FIRST AID MEASURES

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 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.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

- » Treat symptomatically.
- Heavy and persistent skin contamination over many years may lead to dysplastic changes. Pre-existing skin disorders may be aggravated by exposure to this product.
- In general, emesis induction is unnecessary with high viscosity, low volatility products, i.e. most oils and greases.
- High pressure accidental injection through the skin should be assessed for possible incision, irrigation and/or debridement.

NOTE: Injuries may not seem serious at first, but within a few hours tissue may become swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Product may be forced through considerable distances along tissue planes.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- » - Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

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 course.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- 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.

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).
- May emit acrid smoke.
- Mists containing combustible materials may be explosive.

Combustion products include: carbon dioxide (CO₂), phosphorus oxides (PO_x), other pyrolysis products typical

continued...

CIRCOIL & CIRCOIL NTRM - ISO 150, 220, 320 & 460

Chemwatch Material Safety Data Sheet

Issue Date: 22-May-2009

NC317ECP

CHEMWATCH 21-2208

Version No:2.0

CD 2009/1 Page 3 of 9

Section 5 - FIRE FIGHTING MEASURES

of burning organic material.
May emit poisonous fumes.

FIRE INCOMPATIBILITY

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

HAZCHEM: None

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- » Slippery when spilt.
- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable, labelled container for waste disposal.

MAJOR SPILLS

- » Slippery when spilt.
- Moderate hazard.
- 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.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- » Remove all ignition sources.
- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.

continued...

CIRCOIL & CIRCOIL NTRM - ISO 150, 220, 320 & 460

Chemwatch Material Safety Data Sheet

Issue Date: 22-May-2009

NC317ECP

CHEMWATCH 21-2208

Version No:2.0

CD 2009/1 Page 4 of 9

Section 7 - HANDLING AND STORAGE

- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

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

STORAGE INCOMPATIBILITY

- » CARE: Water in contact with heated material may cause foaming or a steam explosion with possible severe burns from wide scattering of hot material. Resultant overflow of containers may result in fire.
- Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS

- » - Store in original containers.
- Keep containers securely sealed.
- No smoking, naked lights or ignition sources.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA mg/m ³
Australia Exposure Standards	residual oils, petroleum, solvent dewaxed (Oil mist, refined mineral)	5
Australia Exposure Standards	paraffinic distillate, heavy, solvent-dewaxed (severe) (Oil mist, refined mineral)	5

MATERIAL DATA

- » Not available. Refer to individual constituents.

INGREDIENT DATA

PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE):

RESIDUAL OILS, PETROLEUM, SOLVENT DEWAXED:

» NOTE L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. European Union (EU) List of Dangerous Substances (Annex I) - up to the 29th ATP.

PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE):

RESIDUAL OILS, PETROLEUM, SOLVENT DEWAXED:

» Human exposure to oil mist alone has not been demonstrated to cause health effects except at levels above 5 mg/m³ (this applies to particulates sampled by a method that does not collect vapour). It is not advisable to apply this standard to oils containing unknown concentrations and types of additive.

RESIDUAL OILS, PETROLEUM, SOLVENT DEWAXED:

» 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

continued...

CIRCOIL & CIRCOIL NTRM - ISO 150, 220, 320 & 460

Chemwatch Material Safety Data Sheet

Issue Date: 22-May-2009

NC317ECP

CHEMWATCH 21-2208

Version No:2.0

CD 2009/1 Page 5 of 9

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Annex I. European Union (EU) List of Dangerous Substances (Annex I) - up to the 29th ATP.

PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE):

» Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.

PERSONAL PROTECTION

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.

OTHER

- » - Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

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	A- AUS P	-
1000	50	-	A- AUS P

continued...

CIRCOIL & CIRCOIL NTRM - ISO 150, 220, 320 & 460

Chemwatch Material Safety Data Sheet

Issue Date: 22-May-2009

NC317ECP

CHEMWATCH 21-2208

Version No:2.0

CD 2009/1 Page 6 of 9

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

5000	50	Airline *	-
5000	100	-	A- 2 P
10000	100	-	A- 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

» General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Viscous light brown liquid with an oily odour; floats on water. Mixes with hydrocarbon solvents and many other organic solvents.

PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Floats on water.

Molecular Weight: Not applicable

Melting Range (°C): Not Available

Solubility in water (g/L): Immiscible

pH (1% solution): Not applicable

Volatile Component (%vol): Nil @ 38C

Relative Vapour Density (air=1): >2

Lower Explosive Limit (%): Not available

Autoignition Temp (°C): Not available

State: Liquid

Boiling Range (°C): 350 in itial

Specific Gravity (water= 1): 0.90

pH (as supplied): Not applicable

Vapour Pressure (kPa): Negligible

Evaporation Rate: Very Slow

Flash Point (°C): >200

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.

- 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

continued...

CIRCOIL & CIRCOIL NTRM - ISO 150, 220, 320 & 460

Chemwatch Material Safety Data Sheet

Issue Date: 22-May-2009

NC317ECP

CHEMWATCH 21-2208

Version No:2.0

CD 2009/1 Page 7 of 9

Section 11 - TOXICOLOGICAL INFORMATION

SWALLOWED

» The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (eg. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

EYE

» Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

SKIN

» The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives .

INHALED

» The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

Not normally a hazard due to non-volatile nature of product.

Inhalation of oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs.

CHRONIC HEALTH EFFECTS

» Oil may contact the skin or be inhaled. Extended exposure can lead to eczema, inflammation of hair follicles, pigmentation of the face and warts on the soles of the feet. There are few systemic effects, but prolonged exposure may lead to a higher incidence of lung scarring.

TOXICITY AND IRRITATION

» Not available. Refer to individual constituents.

RESIDUAL OILS, PETROLEUM, SOLVENT DEWAXED:

» No significant acute toxicological data identified in literature search.

PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE):

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

» No data of toxicological significance identified in literature search.

The substance is classified by IARC as Group 3:

NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

Section 12 - ECOLOGICAL INFORMATION

» DO NOT discharge into sewer or waterways.

Refer to data for ingredients, which follows:

RESIDUAL OILS, PETROLEUM, SOLVENT DEWAXED:

PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE):

continued...

CIRCOIL & CIRCOIL NTRM - ISO 150, 220, 320 & 460

Chemwatch Material Safety Data Sheet
Issue Date: 22-May-2009
NC317ECP

CHEMWATCH 21-2208
Version No:2.0
CD 2009/1 Page 8 of 9

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
CIRCOIL ISO 150, 220, 320 & 460 residual oils, petroleum, solvent dewaxed paraffinic distillate, heavy, solvent-dewaxed (severe)				

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.

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

CIRCOIL ISO 150, 220, 320 & 460 (CAS: None):
No regulations applicable

Regulations for ingredients

residual oils, petroleum, solvent dewaxed (CAS: 64742-62-7) is found on the following regulatory lists:

- Australia Exposure Standards
- Australia Hazardous Substances
- Australia Inventory of Chemical Substances (AICS)
- OECD Representative List of High Production Volume (HPV) Chemicals

paraffinic distillate, heavy, solvent-dewaxed (severe) (CAS: 64742-65-0) is found on the following regulatory lists:

- Australia Exposure Standards
- Australia Hazardous Substances
- Australia High Volume Industrial Chemical List (HVICL)
- Australia Inventory of Chemical Substances (AICS)
- OECD Representative List of High Production Volume (HPV) Chemicals

Section 16 - OTHER INFORMATION

» 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:

continued...

CIRCOIL & CIRCOIL NTRM - ISO 150, 220, 320 & 460

Chemwatch Material Safety Data Sheet

Issue Date: 22-May-2009

NC317ECP

CHEMWATCH 21-2208

Version No:2.0

CD 2009/1 Page 9 of 9

Section 16 - OTHER INFORMATION

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.