1.1 PRODUCT NAME: CHEMLOK 205

#### 1.2 COMPANY

# LORD CHEMICAL PRODUCTS (AUSTRALIA) PTY. LTD.

ACN 085 209 712 21 Beverage Drive Tullamarine Victoria 3043 Australia

Phone: 03 - 9335 6620 Fax: 03 - 9335 6570

# 1.3 EMERGENCY

Telephone: 1800 033 111 - ANYTIME AUSTRALIA WIDE

# 1.4 RECOMMENDED USE

Elastomer Adhesive

# 2 COMPOSITION

Hazardous Ingredients	CAS No	%(w/v)	Hazardous Category	Risk Phases
Carbon Black	1333-86-4	1	Non-hazardous	-
Ethyl Benzene	100-41-4	3	Non-hazardous	-
Methyl Ethyl Ketone	78-93-3	2	Xi	R10, R20, R36/R37
Methyl Isobutyl Ketone	108-10-1	60	Xn	R11, R20, R36/R37
Xylene	1330-20-7	15	Xn	R10, R20/R21

#### 3 HAZARDOUS IDENTIFICATION

Classified as hazardous according to the criteria of Worksafe Australia. Hazard Category: Xn (HARMFUL)

UN Number 1133

Proper Shipping Name ADHESIVES containing flammable liquid

Dangerous Goods Class 3 Subsidiary Risk -

Hazchem Code 3[Y]E
Packing Group II
IERG Number 14
Poisons Schedule 5

# 4 FIRST AID MEASURES

**Swallowed:** Immediately rinse mouth with water. DO NOT INDUCE vomiting. Give plenty water or milk to drink, then raw egg. Seek immediate medical assistance.

**Eye:** Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash contaminated skin. Seek immediate medical assistance.

**Skin:** Immediately wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

**Inhalation:** Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until full recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

Poisons Information Centres in each State capital city can provide additional assistance for scheduled poisons.

**Advice to Doctor: Treat** symptomatically as for exposure to aromatic hydrocarbon solvents. Do not give epinephrine or related drugs. Aspiration can result in pulmonary oedema. Liquid paraffin BP may slow gastric absorption. Gastric lavage should only be undertaken after endotracheal intubation.

### 5 FIRE - FIGHTING MEASURES

Flammable liquid, (Class 3).

May form flammable vapour mixtures with air. Avoid all ignition sources. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Keep containers tightly closed. Heating can cause expansion or decomposition leading to violet rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. Fire fighters to wear self contained breathing apparatus if risk of exposure to vapour or products of combustion/decomposition. During a fire, thermal decomposition or combustion may generate irritating and/or toxic gases and particulate.

**EXTINGUISHING MEDIA**: Water fog, foam, dry agent (carbon dioxide, dry chemical powder).

# 6 ACCIDENTAL RELEASE MEASURES

Shut off possible sources of ignition. Avoid inhalation of vapours. Use self-contained breathing apparatus. Clear area of all unprotected personnel. Slippery when split. Avoid accidents, clean up immediately. Use absorbent (soil, sand or other inert materials). Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Contain – prevent run off into drains and waterways. For large spills notify Emergency Services. If contamination of sewers or waterways has occurred advise local Emergency Services.

# 7 HANDLING and STORAGE

Handling: Avoid skin and eye contact and inhalation of vapours. Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour respirator meeting the requirements of AS1715 and AS1716. Do not handle until all safety precautions have been read and understood. Keep closure tight and container upright to prevent leakage. Empty containers should not be reused. Because empty containers may retain product residue and flammable vapours, keep away from heat, sparks and flame; do not cut, puncture or weld on or near the empty container. Do not smoke where this product is used or stored. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or reuse.

**Storage:** Store only in well-ventilated area. Store away from organic/combustible materials/oxidising agents/foodstuffs. Keep containers closed at all times – check regularly for leaks. Avoid thermal shock. Store in cool place and out of direct sunlight. Store away from sources of heat or ignition. Keep container closed when not in use.

# 8 EXPOSURE CONTROLS and PERSONAL PROTECTION

	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m <sup>3</sup>	NOTICES
Carbon Black	-	3	-	-	-
Ethyl Benzene	100	434	125	543	-
Methyl Ethyl Ketone	150	445	300	890	-
Methyl Isobutyl Ketone	50	205	75	307	-
Xylene	80	350	150	655	-

As published by the National Occupational Health and Safety Commission (Worksafe Australia).

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# **EXPOSURE CONTROLS and PERSONAL PROTECTION - continued**

Exposure Standard (TWA) is the time weighted average airborne concentration over an eight-hour working day, for day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

STEL (Short Term Exposure Limits) – the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

'Sen' notice – sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to minute levels of that substance.

These Exposure Standards are guides to be used in the control of occupational heath hazards. All atmospheric contamination should be kept as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

**Skin Protection:** Use neoprene, nitrile or rubber gloves to prevent skin contact.

**Eye Protection:** Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

**Other Protective Equipment:** Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing and other protective equipment before storage or reuse. If inhalation risk exists wear organic vapour respirator meeting the requirements of AS1715 and AS1716.

**Hygienic Practices:** Always wash hands before smoking, eating, drinking or using the toilet. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

#### 9 PHYSICAL and CHEMICAL PROPERTIES

Appearance Grey liquid
Odour Solvent
Specific Gravity 0.94

Vapour Pressure (kPa) Not determined

Flash Point (°C)

Flammability Limits (v/v%) 1.0 - 11.4 Solubility Limits Insoluble in H2O

Boiling Range ( $^{\circ}$ C) 79 – 139

# 9 PHYSICAL and CHEMICAL PROPERTIES - continued

Freeze Point (°C)

Not determined

Not applicable

% Volatile by volume 86.9 % Volatile by weight 75.5

Viscosity Not available Odour Threshold Not determined

#### 10 STABILITY and REACTIVITY

**Stability:** This product is stable under normal storage conditions.

**Reactivity:** Reacts with strong oxidising gents/acid/alkalis/water/moisture liberating flammable/toxic gas.

Hazardous decomposition products are carbon dioxide, carbon monoxide, chlorine, and hydrogen chloride. Phosgene. (1)

#### 11 HEALTH HAZARDS and TOXICOLOGICAL INFORMATION

#### **HEALTH EFFECTS**

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled are:

#### **ACUTE EFFECTS**

**Swallowed:** Harmful if swallowed. Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent complications.

Eye: May be an eye irritant.

**Skin:** Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritate contact dermatitis.

**Inhalation:** Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. May cause central nervous system depression characterised by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. May cause respiratory sensitisation. (1)

# 11 HEALTH HAZARDS and TOXICOLOGICAL INFORMATION - continued

#### **CHRONIC EFFECTS**

May cause liver or kidney damage. Repeated or prolonged solvent over exposure may result in permanent central nervous system damage. May affect the gastrointestinal system. May effect the blood and blood forming organs. Formaldehyde (gas), entrapped in this product, may be released during heating or mixing. NTP, IARC and OSHA have identified it as a potential human carcinogen. Chronic skin contact may cause dermatitis. IARC has designated carbon black as Group 2B – inadequate evidence for carcinogenicity in humans, but sufficient evidence in experimental animals. (1)

#### **TOXICITY EFFECTS**

No product toxicological information is available.

For the individual components based on 100% the following toxicological information has been recorded:

Carbon Black (2)

IARC Evaluation Possibly carcinogenic to humans (Group 2B)

Ethyl Benzene (3)

Oral LD50 (rat) 3500 mg/kg Inhalation LC50 (rat) 4000 ppm/4 hrs

Methyl Ethyl Ketone (4)

Oral LD50 (rat) 2737 mg/kg
Inhalation LCLo (rat) 2000 ppm/4 hr
Inhalation LC50 (mouse) 40 g/m³/2 hr
Skin LD50 (rabbit) 13 g/kg

Skin (rabbit) 500 mg/24 hr: moderate irritation effects Skin (rabbit) 13780 ug/24 hr open: mild irritation

Inhalation (rat)

dose 412, 1002, 3005 ppm: kidney, cranium, face development including teratogenicity effects. Dose 400, 1000 or 3000 ppm: skeleton,

development effects

Methyl Isobutyl Ketone (5)

 Oral LD50 (rat)
 2080 mg/kg

 Oral LD50 (mouse)
 2671 mg/kg

 Eye LC50 (mouse)
 23300 mg/m³

Skin (rabbit) 500 mg/24 hr: mild irritation effects Eye (rabbit) 500 mg/24 hr: mild irritation effects

Xylene (6)

Oral LD50 (rat) 4300 mg/kg Inhalation LC50 (rat) 5000 ppm/4 hrs

# 12 ECOLOGICAL INFORMATION

No environmental impact data found for this material, however for:

Carbon Black

No data found.

Ethyl Benzene (7)

96 hr LC50 (minnow, sheepshead, juvenile) (static): 280 mg/l

24 - 96 hr LC50 (bass, stripped, juvenile) (static): 4.3 mg/l

96 hr LC50 (mysidopsis) (static): 87.6 mg/l

96 hr LC50 (sunfish, bluegill) (static): 130 - 200 mg/l

48 hr LC50 (daphnia magna, <24 HR) (static): 50 - 120 mg/l

Methyl Ethyl Ketone

No data found.

Methyl Isobutyl Ketone

No data found.

Xylene (8)

24 - 96 hr LC50 (guppy) (static): 34.73 mg/l

24 – 96 hr LC50 (goldfish) (static): 36.81 mg/l

24 - 48 hr LC50 (sunfish, bluegill) (static): 24 mg/l

24 - 96 hr LC50 (minnow, flathead) (static): 28.77 mg/l

24 hr LC50 (daphnia magna, juvenile 24 HR) (static): 150 mg/l

#### 13 DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor. Advise flammable nature. Normally suitable for disposal by approved agent.

# 14 TRANSPORT INFORMATION

SHIPPING NAME Packing Group

ADHESIVES containing flammable liquid

Mode	Regulations	Class	Packing Group	Notes
-	UN	1133	II	
Sea	IMDG	Class 3	II	
Road/Rail	ADG Code	Class 3	ll .	
Air	IATA/ICAO	Class 3	II	

Classified as a Class 3 (FLAMMABLE LIQUID) Dangerous Substance for the purpose of transport. Refer to relevant regulations for storage and transport requirements.

# 14 TRANSPORT INFORMATION - continued

Not to be loaded with explosives (Class 1), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2), foodstuff or foodstuff empties, however exemptions may apply.

This material is a Scheduled Poison (S5) and must be stored, maintained and used in accordance with the relevant regulations.

# 15 REGULATORY INFORMATION

Classification and labelling according to Worksafe Australia's Code of Practice for Labelling Workplace Substances [NOHSC –2012 (1994)]

Hazard Symbol: Xn (HARMFUL)

R11 Highly flammable.

R20/R21 Harmful by inhalation and in contact with skin R36/R37 Irritating to eyes and respiratory system.

S26 In case of contact with eyes, rinse immediately with plenty of

water and contact a doctor or Poisons Information Centre.

S36/S37 Wear suitable protective clothing and gloves.

S44 If you feel unwell, contact a doctor or Poisons Information

Centre immediately.

Use only in well ventilated areas.

#### 16 OTHER INFORMATION

Exposure Limits: Worksafe Australia has not established A Workplace

Exposure Standard for Atmospheric Contaminants in

the Occupational Environment.

The information contained in this Safety Data Sheets does not replace any of the user's statutory duties in respect of performing an adequate assessment of any potential workplace risk which may occur as a result of the way in which the product is used. The user must carry out such assessments as are required by other health and safety legislation.

#### **Principal References:**

- (1) Material Safety Data Sheet CHEMLOK 205, LORD Corporation Inc. USA, 11 February 2009.
- (2) ECDIN, 0037800 Carbon Black 1333864, Human Health Effects, Carcinogenicity Summary, Occupational Poisoning Reports.
- (3) Dangerous Properties of Industrial Materials, 8th Edition Ethyl Benzene, 1994.

- (4) ECDIN, 0000388 Butone (Methyl Ethyl Ketone) 78933, Effects on experimental animals Data, Effects on experimental animals Summary, Teratogenicity Animal Data.
- (5) ECDIN, 0030522 4-Methylpentan-2-one (Methyl Isobutyl Ketone) 108101, Effects on experimental animals Summary.
- (6) Material Safety Data Sheet Xylene, BP Chemicals, July 1996, Infosafe No. BP062.
- (7) ECDIN, 0000440 Benzene, Ethyl 100414, Aquatic Toxicity.
- (8) ECDIN, 0000503 Benzene, Dimethyl 1330207, Aquatic Toxicity.

The customer is advised to consult the product Technical Data Sheets for further information including advice on suitable equipment.

Information used in the compilation of this product SDS obtained from investigations conducted at outside laboratories.

Lord Chemical Products (Australia) Pty. Ltd has prepared this Material Safety Data Sheet.

Issue Date **2 March 2010**Supersedes 6 November 2008

Reason for Revision Review of Risk phrases, deletion of formaldehyde.

#### 'CHEMLOK' is a registered trademark of Lord Corporation Inc. Erie PA, USA

The information contained in this document is intended to describe the product only in terms of health, safety and environmental requirements for the purposes of its safe handling, use and disposal and is to the best of Lord's knowledge and belief correct. Lord will be pleased to give further advice and assistance, but customers must satisfy themselves (by appropriate testing if necessary) that the product is suitable for their purposes and conditions of use and that their facilities and arrangements are suitable for handling or using the product. Accordingly Lord disclaims any liability for loss, injury or damage, which may result from the use of the product, this information, or from such advice and assistance save as may be expressly agreed under its terms of sale.

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