

Dy-Mark Linemarking Yellow Bulk

(Chemwatch name: DY-MARK LINEMARKING YELLOW BULK)

Chemwatch Material Safety Data Sheet

Revision No: 2

Hazard Alert Code:**HIGH**

Chemwatch 43788

Issue Date: 3-Aug-2006

CD 2007/1

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**PRODUCT NAME:** LINE MARKING YELLOW BULK PAINT BASE (DY-MARK LINEMARKING YELLOW BULK)**SYNONYMS**

"Line Marking Yellow bulk paint base"

PROPER SHIPPING NAME

PAINT

PRODUCT USE

Bulk paint base for Linemarking Yellow Aerosols.

SUPPLIER

Company: Dy-Mark Pty Ltd

Address:

89 Formation Street

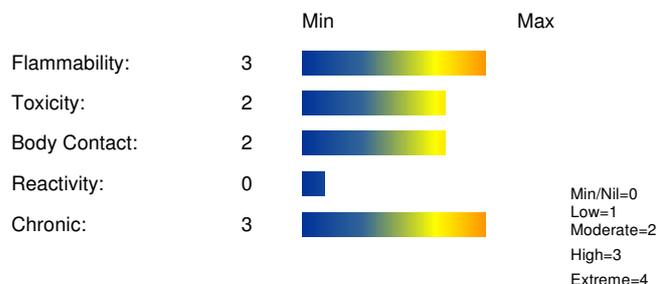
Wacol

QLD, 4076

AUS

Telephone: +61 7 3271 2222

Fax: +61 7 3271 2751

HAZARD RATINGS**Section 2 - HAZARDS IDENTIFICATION****STATEMENT OF HAZARDOUS NATURE****HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.****POISONS SCHEDULE**

S6

RISK

Highly flammable.

Harmful by inhalation, in contact with skin and if swallowed.

Danger of cumulative effects.

Irritating to eyes and skin.

Limited evidence of a carcinogenic effect.

Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

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

May cause harm to the unborn child.

Possible risk of impaired fertility.

HARMFUL-May cause lung damage if swallowed.

Vapours may cause drowsiness and dizziness.

May produce discomfort of the respiratory system*.

* (limited evidence).

SAFETY

Keep locked up.

Keep away from sources of ignition. No smoking.

Keep container in a well ventilated place.

Avoid exposure - obtain special instructions before use.

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

Keep container tightly closed.

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

Keep away from food, drink and animal feeding stuffs.

Take off immediately all contaminated clothing.

In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

Use appropriate container to avoid environment contamination.

Avoid release to the environment. Refer to special 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	%
toluene	108-88-3	30-60
lead chromate	7758-97-6	30-60
methyl methacrylate/ n-BMA/ MAA copolymer	28262-63-7	10-30

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xylene	1330-20-7	10-30
acetone	67-64-1	1-10
propylene glycol monomethyl ether	107-98-2	1-10

Section 4 - FIRST AID MEASURES**SWALLOWED**

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

- 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.

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with 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

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 (pO₂ 50 mm Hg) should be intubated.
- Gastric acids solubilise lead and its salts and lead absorption occurs in the small bowel.
- Particles of less than 1 µm diameter are substantially absorbed by the alveoli following inhalation.

Section 5 - FIRE FIGHTING MEASURES**EXTINGUISHING MEDIA**

- Foam.
- Dry chemical powder.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
 - Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Other combustion products include: carbon dioxide (CO₂) and metal oxides, i.e. lead.

FIRE INCOMPATIBILITY

Avoid reaction with oxidising agents.

HAZCHEM

3[Y]E

Personal Protective EquipmentBreathing apparatus.
Chemical splash suit.**Section 6 - ACCIDENTAL RELEASE MEASURES****EMERGENCY PROCEDURES****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**

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.

SUITABLE CONTAINER

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

STORAGE INCOMPATIBILITY

Avoid storage with oxidising agents, strong acids and alkalis, organic peroxides, alkali metals, aluminium and magnesium powders.

STORAGE REQUIREMENTS

- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**EXPOSURE CONTROLS**

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³	TWA F/CC
Australia Exposure Standards	toluene (Toluene)	50	191	150	574			
Australia Exposure Standards	lead chromate (Lead chromate (as Cr) (h))		0.05					
Australia Exposure Standards	lead chromate (Lead, inorganic dusts & fumes (as Pb))		0.15					
Australia Exposure Standards	methyl methacrylate/ n-BMA/ MAA copolymer (Inspirable dust (Not specified))		10					
Australia Exposure Standards	xylene (Xylene (o-, m-, p- isomers))	80	350	150	655			
Australia Exposure Standards	acetone (Acetone)	500	1185	1000	2375			
Australia Exposure Standards	propylene glycol monomethyl ether (Propylene glycol monomethyl ether)	100	369	150	553			

PERSONAL PROTECTION**RESPIRATOR**

Type AX Filter of sufficient capacity

EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.

HANDS/FEET

Wear chemical protective gloves, eg. PVC.

OTHER

- Overalls.
- Barrier cream

ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**APPEARANCE**

Yellow flammable liquid with solvent odour; does not mix with water.

PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Molecular Weight: Not applicable.	Boiling Range (°C): Not available.
Melting Range (°C): Not available.	Specific Gravity (water=1): Not available.
Solubility in water (g/L): Immiscible	pH (as supplied): Not applicable
pH (1% solution): Not applicable.	Vapour Pressure (kPa): Not available.
Volatile Component (%vol): >50	Evaporation Rate: Not available
Relative Vapour Density (air=1): Not available.	Flash Point (°C): <23
Lower Explosive Limit (%): Not available.	Upper Explosive Limit (%): Not available.
Autoignition Temp (°C): Not available.	Decomposition Temp (°C): Not available
State: Liquid	

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

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CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.

Section 11 - TOXICOLOGICAL INFORMATION**POTENTIAL HEALTH EFFECTS**

ACUTE HEALTH EFFECTS	CHRONIC HEALTH EFFECTS
HARMFUL-May cause lung damage if swallowed.	Limited evidence of a carcinogenic effect.
Harmful by inhalation, in contact with skin and if swallowed.	May cause harm to the unborn child.
Irritating to eyes and skin.	Possible risk of impaired fertility.
Can be absorbed through skin.	Danger of cumulative effects.
Vapours may cause dizziness or suffocation.	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
Vapours may cause drowsiness and dizziness.	
May produce discomfort of the respiratory system*.	

* (limited evidence).

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

TOXICITY	IRRITATION
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TOLUENE:

Oral (human) LDLo: 50 mg/kg	Skin (rabbit): 20 mg/24h- Moderate
Oral (rat) LD50: 636 mg/kg	Skin (rabbit): 500 mg - Moderate
Inhalation (human) TCLo: 100 ppm	Eye (rabbit): 0.87 mg - Mild
Inhalation (man) TCLo: 200 ppm	Eye (rabbit): 2 mg/24h - SEVERE
Inhalation (rat) LC50: >26700 ppm/1h	Eye (rabbit): 100 mg/30sec - Mild
Dermal (rabbit) LD50: 12124 mg/kg	

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

LEAD CHROMATE:

Oral (mouse) LD50: 12000 mg/kg	Nil Reported
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WARNING: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS.

Lead is a cumulative poison with adverse effects in pregnancy [NIOSH/TIC]

Lead salts have been reported to cross the placenta and induce embryo- and foeto-mortality. They also may have a teratogenic effect (causing birth deformities) in certain animal species. Organometallic lead may not produce these effects. Adverse effects of lead on human reproduction, embryonic and foetal development and postnatal mental development have also been recorded. Foetal exposure to lead may result in birth defects, mental retardation, behavioural disorders and death during the first year of childhood. Paternal effects may include reduced sex drive, impotence, sterility and adverse effects on the sperm which in turn may increase the potential for increased birth defects. Maternal effects may include miscarriage and stillbirth in exposed women, or women whose husbands might be exposed, sterility or decreased fertility, and abnormal menses. Exposure by both parents to lead may exacerbate the reproductive effects.

METHYL METHACRYLATE/ N-BMA/ MAA COPOLYMER:

No significant acute toxicological data identified in literature search.

XYLENE:

Oral (human) LDLo: 50 mg/kg	Skin (rabbit):500 mg/24h Moderate
Oral (rat) LD50: 4300 mg/kg	Eye (human): 200 ppm Irritant
Inhalation (human) TCLo: 200 ppm	Eye (rabbit): 87 mg Mild
Inhalation (man) LCLo: 10000 ppm/6h	Eye (rabbit): 5 mg/24h SEVERE
Inhalation (rat) LC50: 5000 ppm/4h	
Oral (Human) LD: 50 mg/kg	
Inhalation (Human) TCLo: 200 ppm/4h	
Intraperitoneal (Rat) LD50: 2459 mg/kg	
Subcutaneous (Rat) LD50: 1700 mg/kg	
Oral (Mouse) LD50: 2119 mg/kg	
Intraperitoneal (Mouse) LD50: 1548 mg/kg	
Intravenous (Rabbit) LD: 129 mg/kg	
Inhalation (Guinea pig) LC: 450 ppm/4h	

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

The substance is classified by IARC as Group 3:

NOT classifiable as to its carcinogenicity to humans.

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

Reproductive effector in rats

ACETONE:

Oral (man) TDLo: 2857 mg/kg

Eye (human): 500 ppm - Irritant

Oral (rat) LD50: 5800 mg/kg

Eye (rabbit): 3.95 mg - SEVERE

Inhalation (human) TCLo: 500 ppm

Eye (rabbit): 20mg/24hr - Moderate

Inhalation (man) TCLo: 12000 ppm/4 hr

Skin (rabbit):395mg (open) - Mild

Inhalation (man) TCLo: 10 mg/m³/6 hr

Skin (rabbit): 500 mg/24hr - Mild

Inhalation (rat) LC50: 50100 mg/m³/8 hr

Dermal (rabbit) LD50: 20000 mg/kg

PROPYLENE GLYCOL MONOMETHYL ETHER:

Oral (rat) LD50: 3739 mg/kg

Skin (rabbit) 500 mg Open - Mild

Inhalation (human) TCLo: 3000 ppm

Eye (rabbit) 230 mg Mild

Inhalation (rat) LC50: 10000 ppm/5 h.

Eye (rabbit) 500 mg/24 h. - Mild

Dermal (rabbit) LD50: 13000 mg/kg

NOTE: Exposure of pregnant rats and rabbits to the substance did not

give rise to teratogenic effects at concentrations up to 3000 ppm.

Fetotoxic effects were seen in rats but not in rabbits at this concentration; maternal toxicity was noted in both species.

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
toluene	IARC:3	ILOEI		
lead chromate	IARC:2A NOHSC NTPB			
xylene	IARC:3	ILOEI		

CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: toluene Category: 3

REPROTOXIN

ILOEI: ILO Chemicals in the electronics industry that have toxic effects on reproduction: toluene

CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: lead chromate Category: 2A

CARCINOGEN

NOHSC: Australia Exposure Standards - Carcinogens: lead chromate

Carcinogen Category: 2

CARCINOGEN

NTPB: US National Toxicology Program (NTP) 11th Report Part B. Reasonably Anticipated to be a Human Carcinogen: lead chromate

Category:**CARCINOGEN**

IARC: International Agency for Research on Cancer (IARC) Carcinogens: xylene Category: 3

REPROTOXIN

ILOEI: ILO Chemicals in the electronics industry that have toxic effects on reproduction: xylene

Section 12 - ECOLOGICAL INFORMATION

Marine Pollutant:Not Determined

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.

Section 13 - DISPOSAL CONSIDERATIONS

- Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.

Section 14 - TRANSPORTATION INFORMATION

Labels Required: FLAMMABLE LIQUID

HAZCHEM: 3[Y]E

UNDG:

Dangerous Goods Class:	3	Subrisk:	None
UN Number:	1263	Packing Group:	II
Shipping Name:PAINT			

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PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)

Section 15 - REGULATORY INFORMATION**POISONS SCHEDULE**

S6

REGULATIONS

toluene (CAS: 108- 88- 3) is found on the following regulatory lists;

Australia - Australia New Zealand Food Standards Code - Processing Aids - Permitted extraction solvents

Australia - Australian Capital Territory - Environment Protection Regulation:

Ambient environmental standards (Domestic water supply - organic compounds)

Australia - Australian Capital Territory - Environment Protection Regulation:

Pollutants entering waterways taken to cause environmental harm (Aquatic habitat)

Australia - Australian Capital Territory Environment Protection Regulation

Ecosystem maintenance - Organic chemicals - Non- pesticide anthropogenic organics

Australia - Australian Capital Territory Environment Protection Regulation

Pollutants entering waterways - Domestic water quality

Australia Exposure Standards

Australia High Volume Industrial Chemical List (HVICL)

Australia Illicit Drug Reagents/Essential Chemicals - Category III

Australia Inventory of Chemical Substances (AICS)

Australia National Pollutant Inventory

Australia Poisons Schedule

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6

IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk

International Agency for Research on Cancer (IARC) Carcinogens

OECD Representative List of High Production Volume (HPV) Chemicals

United Nations Convention Against Illicit Traffic in Narcotic Drugs and

Psychotropic Substances - Table II

United Nations List of Precursors and Chemicals Frequently used in the Illicit

Manufacture of Narcotic Drugs and Psychotropic Substances Under International

Control - Table II (English)

WHO Guidelines for Drinking- water Quality - Guideline values for chemicals that are of health significance in drinking- water

lead chromate (CAS: 7758- 97- 6) is found on the following regulatory lists;

Australia - Australia New Zealand Food Standards Code - Food Additives - Maximum levels of specified contaminants and natural toxicants in nominated foods

Australia - Australia New Zealand Food Standards Code - Processing Aids -

Permitted catalysts

Australia - New South Wales Hazardous Substances Requiring Health Surveillance

Australia - Tasmania Hazardous Substances Requiring Health Surveillance

Australia - Western Australia Hazardous Substances Requiring Health Surveillance

Australia Exposure Standards

Australia Hazardous Substances Requiring Health Surveillance

Australia Inventory of Chemical Substances (AICS)

Australia National Pollutant Inventory

Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance

Australia Poisons Schedule

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 4

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6

International Agency for Research on Cancer (IARC) Carcinogens

International Council of Chemical Associations (ICCA) - High Production Volume List

OECD Representative List of High Production Volume (HPV) Chemicals

methyl methacrylate/ n- BMA/ MAA copolymer (CAS: 28262- 63- 7) is found on the following regulatory lists;

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

xylene (CAS: 1330- 20- 7) is found on the following regulatory lists;

Australia - Australian Capital Territory - Environment Protection Regulation:

Ambient environmental standards (Domestic water supply - organic compounds)

Australia - Australian Capital Territory Environment Protection Regulation

Pollutants entering waterways - Domestic water quality

Australia Exposure Standards

Australia High Volume Industrial Chemical List (HVICL)

Australia Inventory of Chemical Substances (AICS)

Australia National Pollutant Inventory

Australia Poisons Schedule

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6

IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk

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International Agency for Research on Cancer (IARC) Carcinogens
 International Council of Chemical Associations (ICCA) - High Production Volume List
 OECD Representative List of High Production Volume (HPV) Chemicals
 WHO Guidelines for Drinking- water Quality - Guideline values for chemicals that are of health significance in drinking- water
 acetone (CAS: 67- 64- 1) is found on the following regulatory lists;
 Australia - Australia New Zealand Food Standards Code - Processing Aids - Permitted extraction solvents
 Australia Exposure Standards
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Illicit Drug Reagents/Essential Chemicals - Category III
 Australia Inventory of Chemical Substances (AICS)
 Australia National Pollutant Inventory
 Australia Poisons Schedule
 Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5
 IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
 OECD Representative List of High Production Volume (HPV) Chemicals
 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances - Table II
 United Nations List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control - Table II (English)
 propylene glycol monomethyl ether (CAS: 107- 98- 2) is found on the following regulatory lists;
 Australia Exposure Standards
 Australia Inventory of Chemical Substances (AICS)
 Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6
 IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
 International Council of Chemical Associations (ICCA) - High Production Volume List
 OECD Representative List of High Production Volume (HPV) Chemicals
 propylene glycol monomethyl ether (CAS: 1320- 67- 8) is found on the following regulatory lists;
 Australia Inventory of Chemical Substances (AICS)
 Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6
 No data available for propylene glycol monomethyl ether as CAS: 28677- 93- 2.

Section 16 - OTHER INFORMATION**Ingredients with multiple CAS Nos**

Ingredient Name	CAS
propylene glycol monomethyl ether	107-98-2, 1320-67-8, 28677-93-2

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