Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

KEMBLA SMALL DIAMETER DOMESTIC KEMLAG

SYNONYMS

"Vinyl Compound Flexible Non-Lead"

PRODUCT USE

Extrusion or injection moulding of PVC plastics.

SUPPLIER

Company: Metal Manufactures Address: Gloucester Boulevarde Port Kembla NSW, 2505 AUS Telephone: +61 2 4223 5300 Fax: +61 2 4223 5288

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

CHEMWATCH HAZARD RATINGS



Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME polyvinyl chloride	CAS RN 9002-86-2	% >40
additives barium	7440-39-3	15-60 <1
vinyl chloride	75-01-4	trace

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.

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.

KEMBLA SMALL DIAMETER DOMESTIC KEMLAG

- 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. or 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.
- DO NOT break blister or remove solidified material.
- Quickly cover wound with dressing or clean cloth to help prevent infection and to ease pain.

INHALED

- » If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses 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. or If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear breathing passages.
- Ask patient to rinse mouth with water but to not drink water.
- Seek immediate medical attention.

NOTES TO PHYSICIAN

» Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- » 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 for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Cool fire exposed containers with water spray from a protected location.

DO NOT approach containers suspected to be hot. If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD

» Combustible. Will burn if ignited.
NOTE: Burns with intense heat. Produces melting, flowing, burning liquid and dense acrid black smoke.
Self-extinguishing, once the source of ignition is removed.
Decomposes on heating and produces acrid and toxic fumes of:.
carbon monoxide (CO).
carbon dioxide (CO2).
hydrogen chloride and metal oxides.
Avoid creating dust - may present dust explosion hazard. Dry dust can be electrostatically charged by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport.

FIRE INCOMPATIBILITY

» Avoid contamination with strong oxidising agents 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 contact with skin and eyes.
Wear impervious gloves and safety glasses.
Use dry clean up procedures and avoid generating dust.
Place spilled material in clean, dry, sealable, labelled container.

MAJOR SPILLS

» Slippery when spilt.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment and dust respirator.
- Prevent spillage from entering drains, sewers or water courses.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- » Avoid generating and breathing dust.
- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Atmosphere should be checked against exposure standards.

SUITABLE CONTAINER

» Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag.

NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse.

STORAGE INCOMPATIBILITY

» Avoid storage with oxidisers and amines.

STORAGE REQUIREMENTS

» - Keep dry.

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.

- Store away from incompatible materials and foodstuff containers.

Store in a cool area and away from sunlight.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Australia Exposure Standards

Source

Material

Ba))

barium (Barium, soluble compounds (as

CAS:9002-86-2

TWA mg/m³

0.5

The following materials had no OELs on our records

polyvinyl chloride:

PERSONAL PROTECTION



RESPIRATOR

Type AX-P Filter of sufficient capacity

EYE

» - Chemical goggles.

- Full face shield may be required for supplementary but never for primary protection of eyes

- 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 general protective gloves: i.e. Disposable polythene gloves or Cotton gloves or Light weight rubber gloves, with Barrier cream preferably Safety footwear.

- When handling hot materials wear heat resistant, elbow length gloves.

- Rubber gloves are not recommended when handling hot objects, materials.

- Safety footwear.

OTHER

» Overalls.

- Ensure that there is ready access to eye wash unit.

Ensure there is ready access to a safety shower.

ENGINEERING CONTROLS

» Use in a well-ventilated area. General exhaust is adequate under normal operating conditions. Area where polymer is heat processed should be ventilated to remove vapour, fumes released during all stages of processing. If inhalation risk of overexposure exists, wear SAA approved organic-vapour respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Green granules; insoluble in water. Soluble in strong solvents, e.g. tetrahydrofuran and methyl ethyl ketone.

PHYSICAL PROPERTIES

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

Molecular Weight: Not applicable Melting Range (\mathfrak{C}): Not Available Solubility in water (g/L): Immiscible pH (1% solution): Not applicable Volatile Component (%vol): Not applicable Relative Vapour Density (air=1): Not applicable Lower Explosive Limit (%): Not applicable Autoignition Temp (\mathfrak{C}): Not available State: Divided solid Boiling Range (°C): Not applicable Specific Gravity (water=1): 1.1- 1.7 pH (as supplied): Not applicable Vapour Pressure (kPa): Not applicable Evaporation Rate: Not applicable Flash Point (°C): Not applicable Upper Explosive Limit (%): Not applicable Decomposition Temp (°C): >200 Viscosity: Not Applicable

CHRONIC HEALTH EFFECTS

IRRITATION

Group

» Not applicable.

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 » Not applicable.

TOXICITY AND IRRITATION » Not available. Refer to individual constituents.

POLYVINYL CHLORIDE:

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

» No significant acute toxicological data 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.

BARIUM:

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

TOXICITY

Oral (Dog) LD: 1 mg/kg » No significant acute toxicological data identified in literature search.

CARCINOGEN polyvinyl chloride

International Agency for Research on Cancer
(IARC) Carcinogens

3

Section 12 - ECOLOGICAL INFORMATION

No data

Section 13 - DISPOSAL CONSIDERATIONS

» - Recycle wherever possible or consult manufacturer for recycling options.

- Consult State Land Waste Management Authority for disposal.

- Bury residue in an authorised landfill.

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

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: None

REGULATIONS Regulations for ingredients

Kembla Small Diameter Domestic Kemlag (CAS: None): No regulations applicable

Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (IRRIG)

Australia Inventory of Chemical Substances (AICS)

International Agency for Research on Cancer (IARC) Carcinogens

OECD Representative List of High Production Volume (HPV) Chemicals

barium (CAS: 7440-39-3) is found on the following regulatory lists;

Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - inorganic chemicals)

Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (STOCK - inorganic chemicals)

Australia - Australian Capital Territory Environment Protection Regulation Pollutants entering waterways - Agricultural uses (Stock)

Australia - Australian Capital Territory Environment Protection Regulation Pollutants entering waterways - Domestic water quality

Australia Exposure Standards

Australia Hazardous Substances Australia Inventory of Chemical Substances (AICS)

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

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: 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.