



FORMICA ABS EDGING

Chemwatch Independent Material Safety Data Sheet

Issue Date: 1-Jul-2011

A317LP

CHEMWATCH 15-7361

Version No:5

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

FORMICA ABS EDGING

PRODUCT USE

Decorative surfacing of furniture, cabinets, bench tops, walls, ceilings, floors and doors.

SUPPLIER

Company: The Laminex Group

Address:

PO Box 407

Doncaster

VIC, 3108

Australia

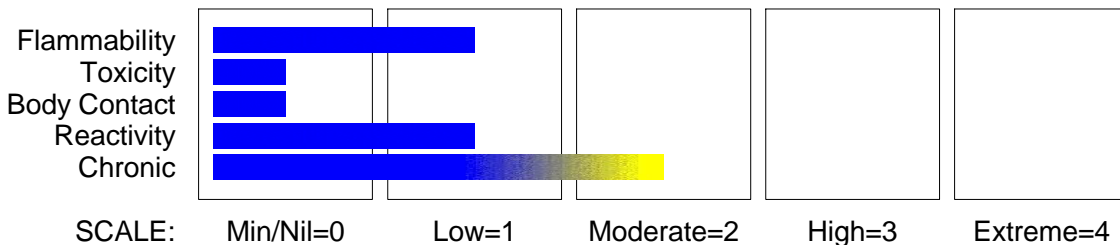
Website: www.thelaminexgroup.com.au

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

CHEMWATCH HAZARD RATINGS



RISK

•None under normal operating conditions.

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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
extruded edging comprising - styrene/ butadiene/ acrylonitrile copolymer may contain residual	9003-56-9	>60
styrene	100-42-5	trace

Section 4 - FIRST AID MEASURES

SWALLOWED

- - Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

- If this product comes in contact with eyes:
 - Wash out immediately with water.
 - If irritation continues, seek medical attention.
 - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

- If skin or hair contact occurs:
 - Flush skin and hair with running water (and soap if available).
 - Seek medical attention in event of irritation.

INHALED

- - If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

NOTES TO PHYSICIAN

- Treat symptomatically.
-

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- - There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

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.
- Use fire fighting procedures suitable for surrounding area.
- 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.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- - Non combustible.
 - Not considered a significant fire risk, however containers may burn, carbon dioxide (CO₂), nitrogen oxides (NO_x), other pyrolysis products typical of burning organic material.
- NOTE: Burns with intense heat. Produces melting, flowing, burning liquid and dense acrid black smoke. May emit poisonous fumes.

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Section 5 - FIRE FIGHTING MEASURES

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

MINOR SPILLS

- - Clean up all spills immediately.
- Secure load if safe to do so.
- Bundle/collect recoverable product.
- Collect remaining material in containers with covers for disposal.

MAJOR SPILLS

- - Clean up all spills immediately.
- Wear protective clothing, safety glasses, dust mask, gloves.
- Secure load if safe to do so. Bundle/collect recoverable product.
- Use dry clean up procedures and avoid generating dust.
- Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
- Water may be used to prevent dusting.
- Collect remaining material in containers with covers for disposal.
- Flush spill area with water.

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.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- 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.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- 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

■ No restriction on the type of containers. Packing as recommended by manufacturer. Check all material is clearly labelled.

STORAGE INCOMPATIBILITY

■ - Avoid reaction with oxidising agents.

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Section 7 - HANDLING AND STORAGE

STORAGE REQUIREMENTS

- Store away from incompatible materials.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

- styrene/ butadiene/ acrylonitrile copolymer: CAS:9003- 56- 9

ODOUR SAFETY FACTOR (OSF)

OSF=0.36 (melamine/ formaldehyde resin)

- Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even when distracted by working activities
B	26- 550	As " A" for 50- 90% of persons being distracted
C	1- 26	As " A" for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As " D" for less than 10% of persons aware of being tested

MATERIAL DATA

STYRENE/ BUTADIENE/ ACRYLONITRILE COPOLYMER:

- For 1,3-butadiene:

Odour Threshold Value: 0.45 ppm (detection), 1.1 ppm (recognition)

Exposure at or below the TLV-TWA is thought to provide significant protection for workers against systemic toxicity including cancer.

US rubber workers reached an accord in 1996 to limit exposure to 1 ppm with a 15-minute, short-term limit of 5 ppm. This TLV-TWA is currently under review in light of a report of animal carcinogenicity at 6.25 ppm.

Odour Safety Factor(OSF)

OSF=1.3 ("1,3-BUTADIENE").

for styrene:

Odour Threshold: 0.017 to 1.9 with a geometric average threshold of 0.32 ppm.

NOTE:Detector tubes measuring styrene at greater than 10 ppm are available.

The recommended TLV-TWA and STEL is based on the influence of styrene exposure on the central and peripheral nervous systems At the TWA, total daily styrene exposure to the standard 70 kg medium-frame man who inhales 10 m3 and who retains 70% of the inspired compound is 21 mg/kg with 0.5 mg/kg absorbed through the skin. The total absorbed dose can be increased six-fold with physical work and increased respiration rate.

Measurement of styrene and its metabolites in the urine can be an indication of recent exposure though this approach may be limited by factors such as the influence of alcohol consumption on styrene

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

pharmacodynamics. Exposure at or below the TLV-TWA is thought to protect the worker against the significant risks of narcosis, neuropathies and irritation although other findings suggest that neuro-optical effects are significant amongst workers exposed at 4 ppm.

Odour Safety Factor(OSF)

OSF=63 (STYRENE).

Odour Threshold Value for acrylonitrile: 1.6 ppm (detection), 22 ppm (recognition)

Odour threshold level 22 ppm (recognition) is well above exposure standard, hence odour gives no warning, rather it indicates severe overexposure.

NOTE: Detector tubes, for acrylonitrile, measuring concentrations in excess of 1ppm, are commercially available. Long-term (8 hrs) measurements may be conducted to detect concentrations exceeding 0.25 ppm.

The recommended TLV-TWA takes account of the consistent production of tumours in rats and the suspicion of cancer in humans.

Some jurisdictions require that health surveillance be conducted on occupationally exposed workers. Such surveillance should emphasise:

(i) demography, occupational and medical history and health advice

(ii) physical examination if indicated

(iii) records of personal exposure.

Odour Safety Factor(OSF)

OSF=0.12 (ACRYLONITRILE).

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], [AS/NZS 1336 or national equivalent].

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

•Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

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

■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.

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

Coloured extruded material; not miscible with water.

PHYSICAL PROPERTIES

Does not mix with water.

State	Manufactured	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Applicable
Boiling Range (°C)	Not Applicable	Solubility in water (g/L)	Immiscible
Flash Point (°C)	Not Applicable	pH (1% solution)	Not Applicable
Decomposition Temp (°C)	>280	pH (as supplied)	Not Applicable
Autoignition Temp (°C)	Not Applicable	Vapour Pressure (kPa)	Not Applicable
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	Not Available
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	Not Available
Volatile Component (%vol)	Not Available	Evaporation Rate	Not Applicable

Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Product is considered stable and 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

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.

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Section 11 - TOXICOLOGICAL INFORMATION

EYE

■ Although the material 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).

Dust may be created during cutting and trimming operations.

SKIN

■ The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

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.

Dust may be created during cutting and trimming operations.

CHRONIC HEALTH EFFECTS

■ There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.

There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

This material contains a substantial amount of polymer considered to be of low concern. These are classified under having MWs of between 1000 to 10000 with less than 25% of molecules with MWs under 1000 and less than 10% under 500; or having a molecular weight average of over 10000. Functional groups contained on the polymer are then classified into risk categories. Being classified as a polymer of "low concern" does not mean that there are no hazards associated with the chemical.

One ingredient of the product has caused skin sensitisation reactions, shown as localised reddening and hives, or may produce respiratory sensitisation characterised by asthma-like symptoms and runny nose.

TOXICITY AND IRRITATION

FORMICA ABS EDGING:

■ Not available. Refer to individual constituents.

STYRENE/ BUTADIENE/ ACRYLONITRILE COPOLYMER:

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

TOXICITY

Oral (Rat) LD50: 5010 mg/kg

Dermal (Rabbit) LD50: 5010 mg/kg

■ 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.

IRRITATION

CARCINOGEN

Acrylonitrile-
butadiene- styrene
copolymers

International Agency
for Research on Cancer
(IARC) - Agents
Reviewed by the IARC
Monographs

Group

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Section 12 - ECOLOGICAL INFORMATION

STYRENE/ BUTADIENE/ ACRYLONITRILE COPOLYMER:

■ For Butadiene: Kow: 1.99; Koc: 72-228; Half-life (hr) air: 4.9; Henry's Pa m³ /mol: 2.57; Henry's atm: m³ /mol; 7.24E-02; BCF: 19.1E

Atmospheric Fate: Butadiene will partition predominately to the atmospheric compartment where it is not expected to be adsorbed to particulate matter to any significant extent. 1,3-Butadiene will volatilize rapidly from either moist or dry soil to the atmosphere where it's most rapid reaction is with photochemically produced hydroxyl radicals. Destruction by nitrate radicals is expected to be a significant night-time process in urban areas. Polluted urban atmospheres increase the rate of degradation somewhat during daylight hours. Reaction with ozone and nitrate radicals may also contribute to the degradation of the chemical. Washout may contribute to removal of 1,3-butadiene from the atmosphere with the compound returning to the atmosphere relatively quickly unless it leaches into the soil.

Aquatic Fate: Dissolved in water, 1,3-butadiene may leach through soil into ground water. 1,3-butadiene will volatilize rapidly from water with a half-life estimated to be several hours. It will not hydrolyze appreciably, but may be subject to biodegradation. 1,3-Butadiene should be biodegraded by biological sewage treatment, as long as suitable acclimatization is achieved. The estimated half-life for evaporation of 1,3-butadiene from rivers is 3.8 hours.

Terrestrial Fate: 1,3-butadiene will volatilize very rapidly from soil and will not hydrolyze appreciably but may be subject to biodegradation. 1,3-butadiene may display moderate mobility in soil; however, there is little potential for leaching into groundwater. Methane utilizing bacteria have been shown to epoxidize 1,3-butadiene under aerobic conditions. 1,3-butadiene is not expected to rapidly evaporate or appreciably adsorb in soils and sediments.

Ecotoxicity: 1,3-butadiene may be biodegradable in the environment with 1,2-epoxybutene being a potential product. 1,3-Butadiene is moderately toxic to aquatic life in the short term and slightly toxic in the long term. There is not enough information to predict additional short or long-term effects of 1,3-butadiene on plants, birds, or other animals. 1,3-Butadiene is not expected to accumulate in fish. Animal studies have reported development effects such as skeletal abnormalities and decreased fetal weights, and reproductive effects, including an increased incidence of shrinkage of the ovaries and testicles. Animal studies have also reported tumors at a variety of sites from inhalation of 1,3-butadiene.

DO NOT discharge into sewer or waterways.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
styrene/ butadiene/ acrylonitrile copolymer	No Data Available	No Data Available		

Section 13 - DISPOSAL CONSIDERATIONS

- - Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- 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: ADG7, UN, IATA, IMDG

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Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE None

REGULATIONS

Regulations for ingredients

styrene/ butadiene/ acrylonitrile copolymer (CAS: 9003-56-9) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs"

No data for Formica ABS Edging (CW: 15-7361)

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. 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.