LAMINEX WALL SYSTEMS SILICONE - NEUTRAL CURING

Chemwatch Independent Material Safety Data Sheet
Issue Date: 2-Aug-2011
A317L

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
LAMINEX WALL SYSTEMS SILICONE - NEUTRAL CURING

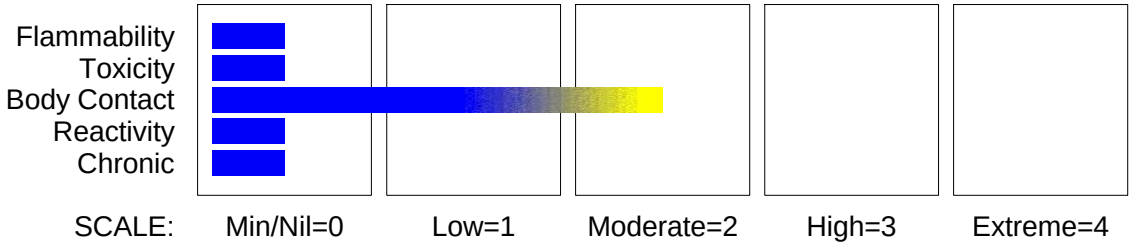
PRODUCT USE
■ Used according to manufacturer's directions.
Wet area sealant

SUPPLIER
Company: The Laminex Group
Address:
90- 94 Tram Road
Doncaster
VIC, 3108
Australia
Telephone: +61 3 9848 4811
Emergency Tel:**1800 039 008**
Fax: +61 3 9840 6513
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

Risk Codes	Risk Phrases
R67	• Vapours may cause drowsiness and dizziness.

SAFETY

Safety Codes	Safety Phrases
S24	• Avoid contact with skin.

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S25	• Avoid contact with eyes.
S37	• Wear suitable gloves.
S39	• Wear eye/face protection.
S26	• In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
organopolysiloxane mixture		NotSpec
will react with moisture during cure and release		
methyl ethyl ketoxime	96-29-7	

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 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.
- Seek medical attention without delay; 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, aerosols or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

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.

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- 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.
May emit poisonous fumes.

FIRE INCOMPATIBILITY
■ None known.

HAZCHEM
None

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
■ - Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety goggles.
- Trowel up/scrape up.
- Place spilled material in clean, dry, sealed container.
- Flush spill area with water.

MAJOR SPILLS
■ Minor hazard.
- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment as required.
- Prevent spillage from entering drains or water ways.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.
- Wash area and prevent runoff into drains or waterways.
- 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
■ - 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.

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- 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
■ - Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY
■ Avoid reaction with.
water.

STORAGE REQUIREMENTS
■ - Store in original containers.
- Keep containers securely sealed.
- 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
The following materials had no OELs on our records
• methyl ethyl ketoxime: CAS:96- 29- 7

MATERIAL DATA
LAMINEX WALL SYSTEMS SILICONE - NEUTRAL CURING:
EXPOSURE GUIDELINES:
Vendor guide ; 3ppm(TWA), 10ppm(STEL),
AIHA WEEL* ; 10ppm(TWA)
[Methylethylketoxime ; decomposed product]
(*AIHA WEEL = American Industrial Hygiene Association Workplace Environmental Exposure Level)

METHYL ETHYL KETOXIME:
■ For methyl ethyl ketoxime (MEKO)
CEL TWA: 10 ppm, 36 mg/m3 (compare WEEL-TWA)
OEL-TWA: 0.28 ppm, 1 mg/m3 ORICA Australia quoting DSM Chemicals
Saturated vapour concentration: 1395 ppm at 20 deg. C.
MEKO produces haemolytic anaemia in animals regardless of the route of exposure. Higher doses produce transient central nervous system depression. In the absence of chronic data and because minimal effects were seen at 25 mg/kg in a 13-week oral study in rats, a workplace environmental exposure level (WEEL) of 10 ppm has been proposed by the AIHA. One industrial hygiene study indicated that MEKO exposures during use of alkyd paints are less than 1 ppm, although they may reach 2 ppm when using a roller. With brush application and some ventilation, the average level was 0.3-0.4 ppm: with spraying it was 0.3 to 0.8 ppm.
Mice and rats show destruction to nasal tissues at 15 ppm ; these effects are thought to be irreversible at 75 ppm.
For methyl ethyl ketone:
Odour Threshold Value: Variously reported as 2 ppm and 4.8 ppm
Odour threshold: 2 ppm (detection); 5 ppm (recognition) 25 ppm (easy recognition); 300 ppm IRRITATING
Exposures at or below the recommended TLV-TWA are thought to prevent injurious systemic effects and to minimise objections to odour and irritation. Where synergism or potentiation may occur stringent control of the primary toxin (e.g. n-hexane or methyl butyl ketone) is desirable and additional consideration should be given to lowering MEK exposures.

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Odour Safety Factor(OSF)
OSF=28 (METHYL ETHYL KETONE).
No exposure limits set by NOHSC or ACGIH.
CAUTION: This substance is classified by the NOHSC as Category 3 Suspected of having carcinogenic potential.

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-P 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:
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. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Milky-white or coloured paste with an oxime odour; not miscible with water

PHYSICAL PROPERTIES
Does not mix with water.
Sinks in water.

State	Non Slump Paste	Molecular Weight	Not Applicable
Melting Range (℃)	Not Available	Viscosity	Not Available
Boiling Range (℃)	Not Available	Solubility in water (g/L)	I mmiscible
Flash Point (℃)	Not Applicable	pH (1% solution)	Not Availab le
Decomposition Temp (℃)	Not Available	pH (as supplied)	Not A vailable
Autoignition Temp (℃)	Not Available	Vapour Pressure (kPa)	Negligible
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	1.05
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	>1
Volatile Component (%vol)	Not Available	Evaporation Rate	<1 BuAC = 1

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 (e.g 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.
Smoothing the sealant with saliva wet finger may introduce sealant into the mouth. Safer alternates should replace this poor work practice.

EYE
■ Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

SKIN
■ Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant

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inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.
Open cuts, abraded or irritated skin should not be exposed to this material.
Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds 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.
Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.

CHRONIC HEALTH EFFECTS
■ Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

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

LAMINEX WALL SYSTEMS SILICONE - NEUTRAL CURING:

TOXICITY	IRRITATION
Oral (Rat) LD50: 4000 mg/kg	
Inhalation (Rat) LC50: >4800 mg/m³/4h	

METHYL ETHYL KETOXIME:

TOXICITY	IRRITATION
Oral (rat) LD50: 930 mg/kg	Eye (rabbit): 0.1 ml - SEVERE
Subcutaneous (rat) LD50: 2702 mg/kg	
Inhalation (rat) LC50: >4.83 mg/l *	
Intraperitoneal (mouse) LD50: 200 mg/kg	
Dermal (rabbit) LD50: >1000 mg/kg *	
Oral (Rat) LD50: >2400 mg/kg **	
Inhalation (Rat) LC50: 20 mg/l/4h **	

■ Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.
For methyl ethyl ketoxime (MEKO)
Carcinogenicity: Increased incidences of liver tumours were observed in rat and mouse lifetime studies and there was also an increased incidence of mammary gland tumours in female rats, however, this was only seen at mid- and/or high concentrations of MEKO. Consideration of the available information regarding genotoxicity indicate that MEKO is not likely to be genotoxic. Accordingly, although the mode of induction of tumours is not fully elucidated, the tumours observed are not considered to have resulted from direct interaction with genetic material.
The European Commission (2000) considered that a possible mechanism for the increased incidences of liver tumours in male rats and mice was the metabolism of MEKO to a carcinogenic agent, mediated by sulfotransferase. The sex and organ specificity of tumour formation correlated with the typically higher

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activity of this enzyme in male rodents.
Genotoxicity: The in vitro and in vivo genotoxicity results for MEKO were mostly negative, including an in vivo study that utilized inhalation exposure and was found to be negative for DNA adducts in rat liver cells. Therefore, based on the available data, MEKO appears to lack mutagenic potential.
Repeat dose toxicity: Non-neoplastic effects were also observed in the nasal cavity of rats and/or mice in inhalation studies of short-term through to chronic exposure. Also, repeated dose studies based on oral exposure showed effects in the spleen, liver and kidney of rats as well as haematological effects in both rats and rabbits.
Reproductive toxicity: In a one-generation oral rat study, the LOAEL for reproductive toxicity was 100 mg/kg-bw per day, the highest dose, based on a statistically significant decrease in female delivery index (%) , whereas no treatment-related effects on reproductive parameters were observed in a two-generation study in which rats were dosed by gavage at 0-200 mg/kg-bw per day In both the one-generation and two-generation studies, a parental LOAEL of 10 mg/kg-bw per day, the lowest dose tested, was established, based on histopathological effects in the spleen and liver (and in the kidney in the one-generation study).
Developmental toxicity: Teratogenicity was not observed in pregnant rats and rabbits dosed orally with MEKO during gestation. The lowest oral LOAEL for developmental toxicity was 40 mg/kg-bw per day, the highest dose, based on abortions in 3 of 10 adult females in pregnant rabbits dosed by gavage during gestation . The lowest oral LOAEL for maternal toxicity was 10 mg/kg-bw per day, based on signs of anemia (increased reticulocytes and methaemoglobin) in rabbits dosed at 0-80 mg/kg-bw per day in a range-finding developmental study.
Mammalian lymphocyte mutagen
*Huls Canada
** Merck

Section 12 - ECOLOGICAL INFORMATION

METHYL ETHYL KETOXIME:
■ Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.
Wastes resulting from use of the product must be disposed of on site or at approved waste sites.
For methyl ethyl ketoxime (MEKO):
Environmental fate"
This substance may hydrolyse, depending on the pH. At 20 C, MEKO is hydrolytically unstable at pH 4, whereas no hydrolysis occurs at pH 9. At pH 7, 14% of the substance was hydrolysed after 4 days. Therefore, at neutral to acidic environmental conditions, hydrolysis may be an important degradation pathway for this substance. Hydrolysis products are methyl ethyl ketone (MEK) (CAS RN 78-93-3) and hydroxylamine (CAS RN 7803-49-8) . The inherent biodegradation study (MITI 1992) suggests that this substance undergoes relatively rapid primary biodegradation, but that ultimate degradation is slower
The BIOWIN (2008) aerobic biodegradation models (BIOWIN submodels 3, 4, 5 and 6) suggest that MEKO biodegrades rapidly
Although little MEKO is expected to partition to sediment, the modelled BIOWIN (2008) biodegradation timeframes (order of weeks), along with the potential for hydrolysis, suggest that the primary degradation half-life in water is likely <90 days.
Based on the empirical and modelled data , MEKO meets the persistence criterion in air (half-life in air .2 days), but does not meet the criteria for water, soil or sediment (half-lives in soil and water .182 days and half-life in sediment . 365 days), as set out in the Persistence and Bioaccumulation Regulations (Canada 2000).
Experimental log Kow values for MEKO suggest that this chemical has low potential to bioaccumulate in biota. Experimentally derived bioconcentration factors (BCF) of 0.5-5.8 for carp (Cyprinus carpio) and Japanese medaka (Oryzias latipes) (MITI 1992; ECB 2000) demonstrate that MEKO is not bioaccumulative
Furthermore, log Kow values for the hydrolysis products methyl ethyl ketone (MEK) and hydroxylamine are very low , indicating that these chemicals also have low potential to bioaccumulate.
Based on the available empirical and kinetic-based modelled values, MEKO does not meet the bioaccumulation criteria (BAF or BCF .5000) as set out in the Persistence and Bioaccumulation Regulations (Canada 2000).
Ecotoxicity:
The toxicity data indicate that MEKO has a moderate potential to be toxic to algae and a low potential for

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most other aquatic organisms. Furthermore, considering the toxicity of the hydrolysis products (methyl ethyl ketone (MEK) and hydroxylamine), as well as the low rate of hydrolysis (14% in 4 days) under environmental conditions, the risk due to the hydrolysis products of MEKO is not expected to be significantly higher than that of the compound itself
Fish LC50 (48 h): Oryzias latipes (Medaka) 560 mg/l
Fish LC50 (96 h): fathead minnows (Pimephales promelas) 10-840 mg/l
Daphnia EC50 (48 h): 750 mg/l
EC50 (0.1 h): Vibrio (Photobacterium) phosphoreum 950 ppm
Toxicity invertebrate: tox bac 0.63g/l, protozoa 2.5g/l
Effects on algae and plankton: tox to algae at 1g/l
.
DO NOT discharge into sewer or waterways.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
methyl ethyl ketoxime	LOW	No Data Available	LOW	MED

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: ADG7, UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE None

REGULATIONS

Regulations for ingredients

OXIMIN 200(METHYLETHYL KETOXIM (CAS: 96-29-7) is found on the following regulatory lists;
OXIMIN 200(METHYLETHYL KETOXIM (CAS: 96-29-7) is found on the following regulatory lists;
"Australia Hazardous Substances","Australia Inventory of Chemical Substances (AICS)","International Council of Chemical Associations (ICCA) - High Production Volume List"

No data for Laminex Wall Systems Silicone - Neutral Curing (CW: 4761-53)

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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.