WarmSEAL IsoLEX Insulation

Safety Data Sheet

September 2021

SECTION 1 – CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product:

Product Name: WarmSEAL IsoLEX Insulation
Product Code: Various

Product Description and Use:
Rigid foam insulation panels for installation as delivered over roof decks. Lexcor Isolex consists of a flat or tapered closed cell polyisocyanurate foam core bonded on both sides to a dark gray glass fiber reinforced felt facer. The thickness of the foam ranges from 0.5 to 4.5 inches. Intended to be covered by hot asphalt or coal tar BUR, modified bitumen, and single ply membrane system roof coverings.

Company Details:

Company: Sealco Limited
Address: Unit 5, 18 Taurus Place, Bromley, Christchurch
PO Box 35-190, Shirley, Christchurch
Telephone: 03 366 9495, 0508 292 837
Website: www.sealco.co.nz

Emergency Number: **National Poisons Centre**
0800 764 766

SECTION 2 – HAZARDS IDENTIFICATION

This product is not classified as hazardous according to the criteria of the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017.

GHS Label Elements

Symbol(s) - None required
Signal Word - None required
Hazard Statement(s) - None required

Disposal - Dispose of contents/container in accordance with local/regional/national/international regulations

Other Hazards

No unusual conditions are expected from this product. Freshly expanded or heated foam may off-gas some pentane-blowing agent, which is heavier than air and may accumulate to ignitable concentrations if stored inside a sealed container or within confined areas. Ignitable atmospheres have concentrations that exceed inhalation exposure limits for workers, further reinforcing the need for ventilation when foam is freshly expanded.

With the exception of the blowing agent, this product does not present an inhalation, ingestion, or contact health hazard unless subjected to operations such as sawing, sanding, or machining that result in the generation of airborne particulates (dusts). Exposure to high dust levels may irritate the skin, eyes, nose, throat, or upper respiratory tract. Inhalation of high amounts of dust over long periods may overload lung clearance mechanisms and make lungs more vulnerable to respiratory disease. [See Section 8 of this SDS for other exposure limit standards for the product ingredients.]

LD50 and LC50 data are listed below for the constituent(s) that are available.

	LC50	LD50	Hodge & Sterner classes	
	Mg/m3 air	Mg/(kg body weight)	(inhalation)	(oral)
Pentanes	364,000 (rat, inh, 4hr)	446 (mouse, i.v.)	Relatively harmless	Insufficient data
Formaldehyde	400 (mouse, inh, 2hr)	42 (mouse oral) 100 (rat oral)	Moderately toxic	Moderately toxic

Potential Health Effects:
Primary Means of Exposure: Inhalation of particulates
Secondary Means of Exposure: Eye and skin contact with particulates and inhalation of vapors

Inhalation Health Hazards:
For polyiso foam (generated dust and residual vapor) and for organics in facers (generated dusts)
Acute: Dust may cause transient mechanical irritation of the upper respiratory tract. Workplace exposures to residual pentane vapors from this product are expected to be below levels of any health risk. Overexposure to high concentrations of pentane can cause narcotic effects. Signs and symptoms of overexposure to pentane include headache, nausea, dizziness, difficulty walking, or sleepiness. Studies have shown that short-term (10- minute) exposures to pentane concentrations as high as 5,000 ppm (11,750 mg/m3) produced no symptoms. Workplace exposure limits for pentane and other organic components are provided in table below.

Chronic: There is no evidence that dusts generated from these products cause disease in humans. Facer dusts containing carbon black pigment are not analogous to the raw carbon black powders for which human carcinogenicity is suspected. No chronic effects are known for exposures to pentane vapor.

For continuous filament glass fibers in facers (generated dust)
Acute: Airborne fragments of glass fibers may cause mechanical irritation of the upper respiratory tract, particularly mouth, nose, and throat; glass dust may cause transient irritation of the upper respiratory tract. Workplace exposure limits are provided in table below.

Chronic: No chronic health effects are known to be associated with exposure to glass fibers. Results from epidemiological studies have not shown any increase in respiratory disease or cancer. The International Agency for Research on Cancer has classified continuous filament fiberglass “Not Classifiable as to Carcinogenicity to Humans” (Group 3).

Eye Contact Health Hazards:
Acute: Mechanical irritation, redness, tearing, and blurred vision can occur if dusts generated from these products come into contact with eyes.

Chronic: None known.

Skin Contact Health Hazards:
Acute: Direct contact with rough-cut foam or felt facers can cause mechanical abrasion cuts or puncture to fingers, hands, or exposed skin.

Chronic: None known.

Signs and Symptoms of Exposure: Irritation of the upper respiratory tract, eyes, and/or skin.

Medical Conditions Generally Aggravated by Exposure: Any condition generally aggravated by mechanical irritants in the air or on the skin. Specific data are not available which address medical conditions that are generally recognized as being aggravated by exposure to this product.

Carcinogenicity:
Ingredient: Textile Fibrous Glass
IARC: Not Classifiable – Group 3
Mutagenicity: None
Reproductive Toxicity: None
NTP: Not Listed
OSHA: Not Listed
Teratogenicity: None

SECTION 3 – INFORMATION ON INGREDIENTS

This item meets the definition of "article" in the OSHA Hazard Communication Standard 29CFR1910.1200
Non-hazardous according to 29CFR1910.1200 when used as intended

* The foam core does not contain urea formaldehyde

Common Name	CAS / Identification	Component	Weight % in article*
Polyiso foam containing:	None	Isocyanurate homopolymer	78
Residual blowing agent	109-66-0	Pentanes	<4.7
Felt Facer (composite of wood pulp and glass fibers) containing:	None		22
- Fibreglass	65997-7-3	Continuous filament glass fibres	5
- Pigment	1333-86-4	Carbon Black	1

*Weight % based on 1-inch foam thickness.

SECTION 4 – FIRST AID MEASURES

Description of Necessary Measures
Inhalation - Remove to fresh air. Drink water to clear throat and blow nose to remove dust.
Eyes - Flush eyes with running water for at least 15 minutes. Do not rub or wipe eyes. If irritation persists, consult a medical professional.
Ingestion - Product is not intended to be ingested or eaten. If product is ingested, irritation of the gastrointestinal tract may occur, and should be treated symptomatically. Do not induce vomiting. Rinse mouth with water to remove particles, and drink plenty of water to help reduce the irritation. [No chronic effects are expected following ingestion.]
Skin - Wash with soap and cool running water.

Note to Physician: This product is a mechanical irritant. It is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

SECTION 5 – FIRE FIGHTING MEASURES

The product is a solid article that will burn if exposed to an ignition source of sufficient heat and intensity, or open flame, such as a welder's torch. It should be installed with a 15-minute thermal barrier between it and the structure's interior. Under certain fire conditions, combustible gases can be generated, creating

rapidly spreading, high-intensity flames and dense, black smoke. Burning of this product can produce irritating and potentially toxic fumes and gases, including carbon monoxide and carbon dioxide; other undetermined hydrocarbon fractions could be released in small quantities.

Extinguishing Media
Suitable Extinguishing Media - Water spray/fog, CO2, dry chemical (consider media appropriate for surrounding materials)

Flashpoint: Not applicable (product is not a liquid)
Auto-ignition temperature: Not determined
Advice For Firefighters - Wear full protective fire-fighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure. Do not inhale any material or combustion by-products.

Pentane vapors may be emitted from freshly produced foam or when product is heated. Pentane concentrations between the lower and upper explosive limits (LEL and UEL) may accumulate under unique circumstances inside a sealed container or within confined areas. If such concentrations are provided a source of ignition, there may be a very high rate of flame propagation.

Pentane:

Flashpoint ≤ -37°C	LEL = 1.5% (35,000 mg/m3)
Boiling point = 28 to 49°C	UEL = 7.8%
Vapor pressure = 514 mm Hg at 25°C	Vapor density = 2.49

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Do not discard residues into sewers, storm sewers, or surface waters.

If accidentally released to a water body, material will float and disperse with wind and current; contain the material with booms and remove either manually or with a vacuum truck.

If accidentally released to land, scoop up material and put into suitable container for disposal.

Chemicals in this material are not expected to cause harm to aquatic or terrestrial plants or animals; however, fish or other animals may eat the product, which could obstruct their digestive tracts.

Be a good steward of the environment and clean up residues (some components of the product are not biodegradable).

SECTION 7 – HANDLING & STORAGE

Storage: Store in a dry, well-ventilated area. Assure storage containers or areas and shipping containers are adequately ventilated. No Smoking—No Matches—No Lighters—No Welding rules should be enforced. Install according to manufacturer's recommendations.

Installation Procedure: Cutting of product should be done in a manner to reduce or control generation of airborne dusts. Avoid unnecessary dust exposures when cutting or abrading by using adequate local or general ventilation. Avoid dust contact with ignition sources. Handle product using good industrial hygiene and safety practices

SECTION 8 – EXPOSURE CONTROL & PERSONAL PROTECTION

NZ Workplace Exposure Limits

Ingredient	CAS / Identification	WES-TWA	WES-STEL
Nuisance dusts NOS containing no asbestos and <1% crystalline silica		15 mg/m³ Total 5 mg/m³ Respirable	Not available
Pentanes	109-66-0	600 ppm / 1770 mg/m³	750 ppm / 2120 mg/m³
Fibreglass	65997-7-3	2mg/m3* 0.3f/ml**	Not available
Carbon Black	1333-86-4	3 mg/m³	Not available
Formaldehyde	50-00-0	0.3 ppm	0.6 ppm

[*for non-carcinogenic SMFs; ** for carcinogenic SMFs]
Formaldehyde - Interim WES-TWA 0.3ppm and WES-STEL 0.6ppm. Proposed to change WES-TWA to 0.1ppm and WES-STEL to 0.3ppm in Nov 2022.

Respiratory Protection: If a respiratory tract irritation occurs or if any dust exposure limit is exceeded, use a respirator such as 3M Model 8271 or Model 8210, or equivalent for protection against nuisance dusts. When normal ventilation is provided to work area, no respiratory protection is needed for pentane vapor.

Protective Clothing: To avoid skin irritation from excessive dust generated during cutting operations, wear long-sleeved, loose-fitting clothing, long pants, and gloves.

Eye Protection: Goggles or safety glasses with side shields are recommended.

Work Area Cleanup: Pick up large pieces; do not wash down drain. Sweep or vacuum smaller pieces into a waste container for disposal. If needed, use water spray to wet down and minimize dust generation. Do not dry sweep dust accumulation or use compressed air for cleanup.

Hygienic Practices: Exposed skin areas should be washed with soap and cool water after working with product. Clothing should be laundered separately from other clothes.

Personal Protective Equipment:

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

The following applies to the product (article), not to pure forms of individual constituents of the product:

Appearance	White or cream-colored foam solid with a dark gray glass fiber reinforced felt facing on both sides.		
Boiling Point	Not applicable	**Specific Gravity**	<1
Melting Point	>250° F	**Solubility (Water)**	Insoluble
Vapour Pressure	Not applicable	**Vapour Density**	Not applicable
% Volatile By Volume	<1	**Evaporative Rate**	Not applicable
pH	Not applicable	**Odour**	Negligible

SECTION 10 – STABILITY & REACTIVITY

Stability: Stable. Service temperature range: -100 to 250°F. To prevent structural deterioration, avoid contact with acetone, methyl ethyl ketone, tetrahydrofuran, chlorine, chloroform, hydrogen peroxide, ethylene dichloride, dimethyl sulfoxide, and dimethyl formamide.

Hazardous Decomposition Products: None identified

Hazardous Polymerization: Will not occur

SECTION 11 – TOXICOLOGICAL INFORMATION

Extensive medical-scientific research has been conducted regarding the health aspects of fiber glass over the past 50 years. The International Agency for Research on Cancer (IARC), and agency of the World Health Organization (WHO), at a meeting in June 1987, reviewed all of the significant research on the health effects attributed to fiber glass.

IARC determined that the data from both human and animal studies was inadequate to classify continuous filament glass fibers such as used in fiber glass reinforcement products, as carcinogenic to humans.

No chronic health effects are known to be associated with exposure to glass fibers. Results from epidemiological studies have not shown any increase in respiratory disease or cancer. The International Agency for Research on Cancer has classified continuous filament fiberglass “Not Classifiable as to Carcinogenicity to Humans” (Group 3).

SECTION 12 – ECOLOGICAL INFORMATION

Chemicals in this material are not expected to cause harm to aquatic or terrestrial plants or animals; however, fish or other animals may eat the product, which could obstruct their digestive tracts.

Be a good steward of the environment and clean up residues (some components of the product are not biodegradable).

This product is not manufactured with, nor does it contain any Class 1 Ozone depleting chemicals as defined by EPA in Title VI of the Clean Air Act Amendments of 1990 40 CFR Part 82, Protection of Stratospheric Ozone.

SECTION 13 – DISPOSAL CONSIDERATIONS

This product, if discarded as supplied, is not considered a hazardous waste under RCRA (40 CFR 261) and may be placed directly into receptacles that will transport the waste to a municipal waste, industrial waste, or demolition waste landfill. If contact with a contaminating substance alters the material, it is the user’s responsibility to determine at the time of disposal whether it meets RCRA criteria for hazardous waste. Dispose in accordance with national and local regulations.

SECTION 14 – TRANSPORT INFORMATION

Land Transport Rule: Dangerous Goods 2005 – NZS5433:2007 – There are no specific restrictions for this product (Not a Dangerous Good).

Shipping Name:	Not Applicable	**Packing Group:**	Not Applicable
UN #	Not Applicable	**HAZCHEM Code**	Not Applicable
Hazard Class:	Not Applicable	**Precautions:**	Not Applicable

SECTION 15 – REGULATORY INFORMATION

This product is not classified as Hazardous according to the criteria of the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017.

Section 16 – OTHER INFORMATION

Abbreviations:

CAS Number	Unique Chemical Abstracts Service Registry Number
IARC	International Agency for Research on Cancer
LD50	Lethal Dose 50% - dose which is fatal to 50% of a test population (usually rats)
LC50	Lethal Concentration 50% - concentration in air which is fatal to 50% of a test population (usually rats)
LEL	Lower Explosive Limit
STEL	Short Term Exposure Limit – The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15-minute period, provided the TWA is not exceeded.
TWA	Time Weighted Average – generally referred to WES averaged over typical workday (usually 8 hours)
UEL	Upper Explosive Limit

Review

Date	Reason for Review	Version
September 2021	Not applicable – New SDS	1

Disclaimer:

This SDS was prepared by Sealco Ltd and is based on our current knowledge, including information obtained by suppliers. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties and how the substance is used. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.