



# Material Safety Data Sheet

Material Name: Heavy Density Pipe Insulation

MSDS No.: 15-MSD- 18994-01-H

## \*\*\* Section 1 - Chemical Product and Company Identification \*\*\*

**Product Name(s):** Heavy Density Pipe Insulation, SSL® Pipe Insulation, SSL-II® Pipe Insulation, No-Wrap Pipe Insulation, ASJ/SSL-II® Pipe Insulation, ASJ 25 Pipe Insulation, Vaporwick™, Pipeshield, Vitro Fibras Pipe Insulation

**Manufacturer:**

Owens Corning  
One Owens Corning Parkway, World Headquarters  
Attn. Product Stewardship  
Toledo, OH 43659, USA

**Emergency Contacts:**

Emergencies ONLY (after 5pm ET and weekends): 1-419-248-5330,  
CHEMTREC (24 hours everyday): 1-800-424-9300,  
CANUTEC (Canada - 24 hours everyday): 1-613-996-6666.

**Health and Technical Contacts:**

Health Issues Information (8am-5pm ET): 1-800-GET-PINK,  
Technical Product Information (8am-5pm ET): 1-800-GET-PINK.

## \*\*\* Section 2 - Composition / Information on Ingredients \*\*\*

CAS #	Component	Percent by Wt.
65997-17-3	Fibrous glass (Fiber glass wool)	85-96
25104-55-6	Cured binder (Urea, polymer with formaldehyde and phenol)	4-15

**Component Related Regulatory Information**

This product may be regulated, have exposure limits or other information identified as the following: Glass wool fiber, fibrous glass, nuisance particulates.

**Component Information/Information on Non-Hazardous Components**

**Note:** See Section 8 of MSDS for exposure limit data for these ingredients. Refer to Section 10 for thermal decomposition products generated in hot end-use applications.

## \*\*\* Section 3 - Hazards Identification \*\*\*

**Appearance and Odor:** Tan fibrous material with faint resin odor molded into cylindrical shape. Product is furnished un-faced or jacketed with a reinforced laminate of paper and foil or an aluminized thin plastic film.

**Emergency Overview:**

Irritating and pungent smoke may be generated in a fire. High temperature applications may release significant airborne concentrations of thermal decomposition products such as ammonia, formaldehyde and carbon monoxide, especially in enclosed or poorly ventilated areas during the first high temperature cycle.



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### Potential Health Effects:

#### Inhalation:

Dusts and fibers from this product may cause mechanical irritation of the nose, throat, and respiratory tract. During initial system startup where temperature exceed 250°F (121°C) or if product is applied to hot surfaces from 250°F (121°C) to 650 oF (343 °C), formaldehyde gas may be released which can cause upper respiratory tract and eye irritation.

During initial system startup where temperatures exceed 650 °F (343 °C) or if product is applied to hot surfaces above 650 °F (343 °C), carbon monoxide and ammonia gas may be released. Ammonia gas can cause respiratory tract and eye irritation. Breathing carbon monoxide can cause headaches, nausea, dizziness, and at high concentrations can be fatal.

#### Skin Contact:

Dust and fibers from this product may cause itching and short-term irritation.

#### Eye Contact:

This product may cause slight irritation to the eyes. Dusts and fibers from this product cause mechanical irritation.

#### Ingestion:

Ingestion of this product is unlikely. If it does occur, watch the person for several days to make sure that partial or complete intestinal obstruction does not occur. Do not induce vomiting unless directed to do so by medical personnel. Ingestion of dusts and fibers from this product cause mechanical irritation.

#### Medical Conditions Aggravated by Exposure:

Chronic respiratory or skin conditions may temporarily worsen from exposure to this product.

#### Chronic Conditions

See Section 11 for additional information.

### \* \* \* Section 4 - First Aid Measures \* \* \*

#### Inhalation:

If inhaled, remove the affected person to fresh air. If irritation persists get medical attention.

#### Skin Contact:

For skin contact, wash immediately with soap and water. Use a washcloth to help remove fibers. To avoid further irritation, do not rub or scratch affected areas. Rubbing or scratching may force fibers into the skin. If irritation persists, get medical attention.

Never use compressed air to remove fibers from the skin. If fibers are seen penetrating from the skin, the fibers can be removed by applying and removing adhesive tape so that the fibers adhere to the tape and are pulled out of the skin.

#### Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists get medical attention.

#### Ingestion:

Ingestion of this material is unlikely. If it does occur, watch the person for several days to make sure that partial or complete intestinal obstruction does not occur. Do not induce vomiting unless directed to do so by medical personnel.



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### \*\*\* Section 5 - Fire Fighting Measures \*\*\*

**Flash Point:** None  
**Upper Flammability Limit:** Not applicable  
**Flammability Classification:** Non-flammable

**Flash Point Method:** Not applicable  
**Lower Flammability Limit:** Not applicable

**Extinguishing Media:**

Dry chemical, foam, carbon dioxide, water fog.

**Unusual Fire & Explosion Hazards:**

These products may release acrid smoke in a sustained fire.

**Fire-Fighting Instructions:**

Use self-contained breathing apparatus (SCBA) and full bunker turnout gear in a sustained fire. Wear protective clothing ensemble as defined in NFPA 1500 (1997, or as updated).

**Hazardous Combustion Products:**

Primary combustion products are carbon monoxide, carbon dioxide, ammonia, aldehydes such as formaldehyde, and water. Quantities and exact amounts formed will depend on variables such as temperature, surface exposed, available oxygen, and binder chemistry. Other undetermined compounds could be released in small quantities.

### \*\*\* Section 6 - Accidental Release Measures \*\*\*

**Containment Procedures:**

This material will settle out of the air. If concentrated on land, it can then be scooped up for disposal as a non-hazardous waste. This material will sink and disperse along the bottom of waterways and ponds.

**Clean-Up Procedures:**

Scoop up material and put into a suitable container for disposal as a non-hazardous waste.

**Response Procedures:**

Isolate area. Keep unnecessary personnel away.

**Special Procedures:**

None.

### \*\*\* Section 7 - Handling and Storage \*\*\*

**Handling Procedures:**

Keep product in its packaging until use to minimize potential dust generation. Keep work areas clean. Avoid unnecessary handling of scrap material.

**Storage Procedures:**

Material should be kept dry and undercover.

### \*\*\* Section 8 – Exposure Controls / Personal Protection \*\*\*

**Exposure Guidelines:**

**A: General Product Information**

Follow all applicable exposure limits.



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### B: Component Exposure Limits

ACGIH and OSHA exposure limit lists have been checked for those components with CAS registry numbers.

#### Fibrous glass (Fiber glass wool) (65997-17-3)

- ACGIH: 1 f/cc TWA for respirable fibers longer than 5 um with a diameter less than 3 um;  
(Listed under "Synthetic vitreous fibers") (related to Glass wool fibers)  
OSHA: 1 fiber/cc (respirable) TWA (a) (See Note Below) (related to Glass wool fiber)

**Note:** (a) Voluntary PEL was established by the North American Manufacturers Association (NAIMA) and OSHA per the Health and Safety Partnership Program (HSPP) agreement for Synthetic Vitreous Fibers (SVF).

### Exposure Limits For Chemicals Which May Be Released During Use

ACGIH and OSHA exposure limit lists have been checked for those components which may be released during use.

#### Ammonia (7664-41-7)

- ACGIH: 25 ppm TWA  
35 ppm STEL  
OSHA: 35 ppm STEL; 27 mg/m<sup>3</sup> STEL

#### Carbon monoxide (630-08-0)

- ACGIH: 25 ppm TWA  
OSHA: 35 ppm TWA; 40 mg/m<sup>3</sup> TWA  
C 200 ppm; C 229 mg/m<sup>3</sup>

#### Nuisance particulates (Not Available)

- ACGIH: 10 mg/m<sup>3</sup> TWA (inhalable particulate); 3 mg/m<sup>3</sup> TWA (respirable particulate) (These values are for particulate matter containing no asbestos and <1% crystalline silica)  
OSHA: total dust: 15 mg/m<sup>3</sup> TWA; respirable fraction: 5 mg/m<sup>3</sup> TWA

### Ventilation:

General dilution ventilation and/or local exhaust ventilation should be provided as necessary to maintain exposures below occupational exposure limits. Dust collection systems should be used in operations involving power tools, as necessary. Local exhaust containing glass fibers and dusts should be filtered prior to recirculation into interior workspaces. Check and regularly maintain exhaust ventilation and dust collection systems.

### PERSONAL PROTECTIVE EQUIPMENT

#### Respiratory Protection:

##### Fiber Glass Wool:

If thermal decomposition products are not anticipated, a properly fitted NIOSH or MSHA approved N 95 series disposable dust respirator such as the 3M model 8210 (model 8271 in high humidity environments) or equivalent should be used when: high dust levels are encountered; the level of glass fibers in the air exceeds the occupational exposure limits; if irritation occurs; or if installing or removing any of these products in poorly ventilated spaces. As an extra precaution you may choose, but are not required, to wear a disposable dust respirator at all times.

Hot Use Applications: When the temperature of the surface being insulated exceeds 250°F (121°C), including initial system startup, the binder in these products may undergo various degrees of decomposition depending on the temperature of the application. The need for respiratory protection will vary according to the airborne concentration of the decomposition products released and accumulated in the area.



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If the insulation is installed on hot surfaces above 250°F (121°C), but below 650°F (343°C), a full-face respirator with cartridges approved for protection against organic vapors (or formaldehyde if available) should be used. If installing product on surfaces above 650°F (343°C), or during initial system startup where temperatures will exceed 650°F (343°C), a full-face supplied air respirator should be used. In areas with good general and/or local exhaust ventilation where exposures are controlled below the formaldehyde, carbon monoxide, and ammonia Occupational Exposure Limits (TWA and STEL's), and additive effects have been factored in, then respiratory protection is normally not needed.

Formaldehyde: In some high temperature applications these products may initially release concentrations of formaldehyde equal to or greater than 0.1 ppm, but less than 0.5 ppm. Airborne concentrations should be assessed to determine the appropriate type of respiratory protection to be used. When in doubt, use supplied air respiratory protection.

Ammonia: Significant quantities of ammonia may be released initially in high temperature applications. Ammonia has good warning properties and any respirator wearer experiencing irritation while wearing an air-purifying respirator should leave the area.

Simultaneous respiratory protection against formaldehyde and ammonia requires use of a supplied air system. A careful assessment of the workplace environment should be made to determine the appropriate respiratory protection required. If air-purifying respirator is used for ammonia protection, it should be full face with cartridges approved for ammonia.

Carbon Monoxide: Respiratory protection generally requires a supplied air system. Carbon monoxide has poor warning properties.

Use respiratory protection in accordance with respirator manufacturer's instructions and in accordance with your company's respiratory protection program, local regulations and OSHA regulations under 29 CFR 1910.134.

### Skin Protection:

Normal work clothing (long sleeved shirt, long pants, and gloves) is recommended. Skin irritation is known to occur chiefly at the pressure points such as around the neck, wrists, waist and between the fingers.

### Eyes/Face Protective Equipment:

Wear safety glasses or goggles.

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

<b>Appearance:</b>	Tan fibrous	<b>Odor:</b>	Organic
<b>Physical State:</b>	Solid	<b>pH:</b>	Not applicable
<b>Vapor Pressure (mm Hg @ 20 C):</b>	Not applicable	<b>Vapor Density (Air=1):</b>	Not applicable
<b>Boiling Point:</b>	Not applicable	<b>Solubility (H2O):</b>	Insoluble
<b>Specific Gravity (Water=1):</b>	Not applicable	<b>Freezing Point:</b>	Not applicable
<b>Evaporation Rate (n-Butyl Acetate=1):</b>	Not applicable	<b>Viscosity:</b>	Not applicable

### Physical Properties: Additional Information

No additional information available.

## \*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*

### Stability:

This is a stable material.



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### Conditions to Avoid:

None expected.

### Incompatible Materials:

None expected.

### Hazardous Decomposition Products:

May release small quantities of formaldehyde, ammonia, and carbon monoxide especially under high ambient temperature and humidity conditions. See Section 5 of MSDS for combustion products statement.

### Hazardous Polymerization:

Will not occur.

## \*\*\* Section 11 - Toxicological Information \*\*\*

### Acute and Chronic Toxicity:

#### A: General Product Information

Dusts may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. Higher exposures may cause difficulty breathing, congestion, and chest tightness.

If this product is subject to high temperature processing, or if product is applied to hot surfaces, formaldehyde gas may be released. Ammonia gas and carbon monoxide may also be released. Formaldehyde may irritate or burn the skin and eyes. Formaldehyde is a lung sensitizer, causing an asthma-like allergy. Future exposures may cause allergy attacks with shortness of breath, wheezing, coughing and chest tightness. Repeated exposure may cause bronchitis. Formaldehyde may cause allergic skin sensitization reactions. Ammonia gas can cause respiratory tract and eye irritation. Breathing carbon monoxide can cause headaches, nausea, dizziness and can be fatal at high concentrations.

#### B: Component Analysis - LD50/LC50

##### Cured binder (Urea, polymer with formaldehyde and phenol) (25104-55-6)

Oral LD50 Rat : 7 gm/kg

Oral LD50 Mouse : 7 gm/kg

#### C: Component Analysis - LD50/LC50 For Chemicals Which May Be Released During Use

##### Ammonia (7664-41-7)

Inhalation LC50 Rat : 2000 ppm/4H

Inhalation LC50 Mouse : 4230 ppm/1H

##### Carbon monoxide (630-08-0)

Inhalation LC50 Rat : 1807 ppm/4H

Inhalation LC50 Mouse : 2444 ppm/4H

##### Formaldehyde (50-00-0)

Flow-through LC50 Fathead Minnow: 24.1 mg/L (96 hr)

Flow-through LC50 Bluegill: 0.10 mg/L (96 hr)

### Carcinogenicity:

**Fiber Glass Wool:** In October 2001, the International Agency for Research on Cancer (IARC) classified fiber glass wool as Group 3, "not classifiable as to its carcinogenicity to humans." The 2001 decision was based on human studies and animal research that have not shown an association between inhalation exposure to dust from fiber glass wool and the development of respiratory disease. This classification replaces the IARC finding in 1987 of a Group B designation "possibly carcinogenic to humans."



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In May 1997, the American Conference of Governmental Industrial Hygienists (ACGIH) adopted an A3 carcinogen classification for glass wool fibers. The ACGIH A3 classification considers glass wool to be carcinogenic in experimental animals at relatively high doses, by routes of administration, at sites, or by mechanisms that it does not consider relevant to worker exposure. It also reviewed the available epidemiological studies and concluded that they do not confirm an increased risk of cancer in exposed humans. Overall, the ACGIH found that the available medical/scientific evidence suggests that glass wool is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

In 1994, the National Toxicology Program (NTP) classified glass wool (respirable size) as "reasonably anticipated to be a human carcinogen." This classification was primarily based upon the 1987 IARC classification. NTP is currently considering reclassifying this material.

### Component Analysis

ACGIH, IARC, OSHA, and NTP carcinogen lists have been checked for those components with CAS registry numbers.

#### Fiber Glass Wool (Fibrous Glass) (65997-17-3)

- IARC: Group 3 "not classifiable as to its carcinogenicity to humans" (related to Glasswool) October 2001 Meeting
- ACGIH: A3 - animal carcinogen (related to Glass wool fibers)
- NTP: Reasonably anticipated to be a human carcinogen (related to glasswool) (possible select carcinogen)

### \*\*\* Section 12 - Ecological Information \*\*\*

No data available for this product. This material is not expected to cause harm to animals, plants or fish.

### \*\*\* Section 13 - Disposal Considerations \*\*\*

#### US EPA Waste Number & Descriptions:

##### A: General Product Information

No components are identified as hazardous wastes.

##### B. Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

#### Disposal Instructions:

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

### \*\*\* Section 14 - Transportation Information \*\*\*

#### US DOT Information

**Shipping Name:** Not regulated for transport.  
**Hazard Class:** None  
**UN/NA #:** None  
**Packing Group:** None  
**Required Label(s):** None  
**Additional Info.:** None

#### TDG Information

**Shipping Name:** Not regulated for transport.  
**Hazard Class:** None  
**UN/NA #:** None



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Packing Group: None  
Required Label(s): None  
Additional Info.: None

Additional Transportation Regulations:  
No additional Information available.

**\*\*\* Section 15 - Regulatory Information \*\*\***

**US Federal Regulations:**

**A: General Product Information**  
No additional information available.

**B: Component Analysis**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).  
**None**

**SARA 311/312**  
**Acute Health Hazard:** Yes  
**Chronic Health Hazard:** Yes  
**Fire Hazard:** No  
**Sudden Release of Pressure Hazard:** No  
**Reactive Hazard:** No

**C: Clean Air Act**

The following components appear on the Clean Air Act-1990 Hazardous Air Pollutants List:  
**None**

**State Regulations:**

**A: General Product Information**  
No additional information available.

**B: Component Analysis - State**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Fibrous glass (Fiber glass wool) ( related to Mineral wool fiber)	65997-17-3	Yes <sup>1</sup>	No	Yes <sup>1</sup>	Yes	No	Yes <sup>1</sup>

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

**Other Regulations:**

**A: General Product Information**  
No additional information available.





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## B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Fibrous glass (Fiber glass wool)	65997-17-3	Yes	Yes	Yes
Cured binder (Urea, polymer with formaldehyde and phenol)	25104-55-6	Yes	Yes	No

## C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	
Fibrous glass (Fiber glass wool)	65997-17-3	1% item 768 (884) (related to Fibrous glass)

**WHMIS Status:** Controlled

**WHMIS Classification:** D2A- Carcinogenicity

### \*\*\* Section 16 - Other Information \*\*\*

HMIS and NFPA Hazard Ratings:	Category	HMIS	NFPA
	Health	1*	1
	Flammability	0	0
	Reactivity	0	0

**NFPA Unusual Hazards** None

**HMIS Personal Protection** To be supplied by user depending upon use.

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

### Key/Legend:

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

### Revision Summary:

This MSDS replaces MSDS 18994-01-G with updated product names. Read this information carefully.

Get OC MSDS electronically via Internet: <http://www.owenscorning.com> or by calling 1-800-GET-PINK

This is the end of MSDS # 18994-01-H