January 1st 2025

Re: SDS Supplier Notification Requirements for EPCRA and OSHA

Dear Nucor Customer:

Please be advised that pursuant to Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) we are providing you with notification that our products may contain reportable chemicals listed under EPCRA Section 313. The enclosed SDS lists each of the reportable chemicals and concentrations that may be contained in the products available to you. All product SDS's possibly requiring notification are available to you at the following web site address:
https://nucor.com/certifications/.

This SDS is also being provided to you to meet requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (29 CFR 1910.1200) which requires manufacturers to supply their customers with SDSs for certain products. The SDS contains vital information relative to the product's safe handling. Please ensure that information contained in this SDS is readily available to all persons handling this product.

Please note that if you process, repackage or otherwise redistribute this product to industrial customers, a notice similar to this one must be provided to those customers. If you are unsure whether you are subject to the notification requirements of EPCRA Section 313, or need more information, contact your regional EPA EPCRA office.

In subsequent years as an existing Nucor customer, this notification will be provided to you on the Sales Order Acknowledgment and the Bill of Lading. The product SDS will be listed at https://nucor.com/certifications/. If you prefer not to receive electronic notification in the future, please write the contact below and ask to opt out of the electronic notification.

Sincerely,

Kailey Neesen
EHS Coordinator

Verco Decking Inc
4340 N 42nd Ave
Phoenix, AZ 85019

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Steel Decking
CAS Number: Not applicable
Synonyms: Uncoated Deck, Galvanized Deck
Use/Description: Steel for wall floor, and roof decking

Deck Locations

24 Hour Contact – CHEMTREC 1-800-424-9300

Vulcraft Nebraska
1601West Omaha Avenue
Norfolk, Nebraska 68701
1 (402) 644-8500

Vulcraft South Carolina
1501 W. Darlington Street
Florence, SC 29501
1 (843) 662-0381

Verco
8333 Lime Avenue
Fontana, CA 92335
1 (909) 822-8079

Vulcraft Alabama
7205 Gault Avenue, North
Fort Payne, Alabama 35967
1 (256) 845-2460

Vulcraft New York
621 Main St.
PO Box 280
Chemung, New York, 14825
1 (607) 529-9000

Vulcraft Canada East
1362 Osprey Drive
Ancaster ON, Canada, L9G-4V5
1 (905) 516-1591

Vulcraft Texas
North Main Street Extension
Grapeland, Texas 75844
1 (936) 687-4665

Verco
4340 North 42nd Avenue
Phoenix, AZ 85019
1 (602) 272-1347

Vulcraft Indiana
County Road 60
St. Joe, Indiana, 46785
1 (260) 337-1800

Verco
607 Wilbur Avenue
Antioch, CA 94509
1 (925) 778-2102

For general product information, contact facility as listed above. For emergencies, use the 24 Hour Contact.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

STEEL PRODUCTS AS SOLD BY NUCOR ARE NOT HAZARDOUS PER OSHA GHS 29 CFR 1910, 1915, 1926. However, individual customer processes, (such as welding, sawing, brazing, grinding, abrasive blasting, and machining) may result in the formation of fumes, dust (combustible or otherwise), and/or particulate that may present the following hazards:

OSHA Hazards:
Carcinogen
Skin Sensitizer
Target Organ Effect – Lungs

GHS Classification:
Carcinogenicity (Category 2)
Skin Sensitization (Category 1)
Specific Target Organ Toxicity-Repeated Exposure (Category 1)

Pictogram(s):

Signal Word: Danger

Hazard Statement(s)

H317: Dust/fumes may cause an allergic skin reaction.
H351: Dust/fumes suspected of causing cancer via inhalation.

Revision Date: 12/22/2020
Review Date: 12/22/2020

H372: Inhalation of dust/fumes causes damage to respiratory tract through prolonged or repeated exposure.

Precautionary Statement(s)
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust/fumes.
P281: Use personal protective equipment as required.
P308+P313: If exposed or concerned: Get medical advice/attention.

Potential Health Effects

Eye Contact
Dusts or particulates may cause mechanical irritation including pain, tearing, and redness. Scratching of the cornea can occur if eye is rubbed. Fumes may be irritating. Contact with the heated material may cause thermal burns.

Skin Contact
Dusts or particulates may cause mechanical irritation due to abrasion. Coated steel may cause skin irritation in sensitive individuals (see Section 16 for additional information.) Some components in this product are capable of causing an allergic reaction, possibly resulting in burning, itching and skin eruptions. Contact with heated material may cause thermal burns.

Inhalation
Dusts may cause irritation of the nose, throat, and lungs. Excessive inhalation of metallic fumes and dusts may result in metal fume fever, an influenza-like illness. It is characterized by a sweet or metallic taste in the mouth, accompanied by dryness and irritation of the throat, cough, shortness of breath, pulmonary edema, general malaise, weakness, fatigue, muscle and joint pains, blurred vision, fever and chills. Typical symptoms last from 12 to 48 hours.

Ingestion
Not expected to be acutely toxic via ingestion based on the physical and chemical properties of the product. Swallowing of excessive amounts of the dust may cause irritation, nausea, and diarrhea.

Potential Fire and Explosion Hazards
Under normal conditions, steel products do not present fire or explosion hazards, and dust generated by handling steel products is oxidized and not combustible. Processing of steel product by some individual customers may produce potentially combustible dust that may represent a fire or explosion hazard.

Chronic or Special Toxic Effects
Repeated exposure to fine dusts may inflame the nasal mucosa and cause changes to the lung. In addition, a red-brown pigmentation of the eye and/or skin may occur. Welding fumes have been associated with adverse health effects. Contains components that may cause cancer or reproductive effects. The following components are listed by NTP, OSHA, or IARC as carcinogens: Nickel, chromium (hexavalent), cobalt, lead, cadmium, antimony (trioxide), arsenic, beryllium. See Section 11, for additional, specific information on effects noted above.

Target Organs
Overexposure to specific components of this product that are generated in dusts or fumes may cause adverse effects to the following organs or systems: eyes, skin, liver, kidney, central nervous system, cardiovascular system, respiratory system.

Medical Conditions Aggravated by Exposure
Diseases of the skin such as eczema may be aggravated by exposure. Also, disorders of the respiratory system including asthma, bronchitis, and emphysema. Long-term inhalation exposure to agents that cause pneumoconiosis (e.g. dust) may act synergistically with inhalation of oxide fumes or dusts of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components		CAS No.	% Weight	Exposure Limits			
				ACGIH TLV (mg/m^3)		OSHA PEL (mg/m^3)	
Base Metal:							
Iron	(Fe)	7439-89-6	Balance	5	Oxide Dust/Fume	10	Oxide Dust/Fume
Alloying Elements							
Aluminum	(Al)	7429-90-5	0-0.43	10 5	Dust Fume	15 5	Dust Respirable fraction
Chromium	(Cr)	7440-47-3	0.01-1.5	0.5	Metal	1	Metal

Components		CAS No.	% Weight	Exposure Limits			
				ACGIH TLV (mg/m^3)		OSHA PEL (mg/m^3)	
Copper	(Cu)	7440-50-8	<0.9 Some grades up to 3.5%	1 0.2	Dust Fume	1 0.1	Dust Fume
Magnesium	(Mg)	7439-95-4	<10.02		Not Established		Not Established
Manganese	(Mn)	7439-96-5	<6.0	0.2	Elemental Mn and Inorg Compounds	5	Fume (Ceiling)
Molybdenum	(Mo)	7439-98-7	<1.1	10	Insoluble Compounds	15	Insoluble Compounds
Nickel	(Ni)	7440-02-0	0.01-2.0	1.5	Metal	1	Metal and Insoluble Compounds
Coatings and Finishing Treatments:							
Hydrochloric Acid	(HCl)	7647-01-0	<3				
Zinc (galvanized)		7440-66-6	Up to 10	10 5 10	Oxide Dust OxideFume Oxide Fume (STEL)	5 10	Oxide Fume Oxide Dust

NOTE: No permissible exposure limits (PEL) or threshold limit values (TLV) exist for steel. The above listing is a summary of elements used in normal Nucor Steel Products. Various grades of steel will contain different combinations of these elements and/or trace materials. Exact specifications for specific products may be available upon request.

4. FIRST AID MEASURES

Eye Contact- In case of overexposure to dusts or fumes, immediately flush eyes with plenty of water for at least 15 minutes occasionally lifting the eye lids. Get medical attention if irritation persists. Thermal burns should be treated as medical emergencies.
Skin Contact - In case of overexposure to dusts or particulates, wash with soap and plenty of water. Get medical attention if irritation develops or persists. If thermal burn occurs, flush area with cold water and get immediate medical attention.
Inhalation - In case of overexposure to dusts or fumes, remove to fresh air. Get immediate medical attention if symptoms described in this Safety Data Sheet (SDS) develop.
Ingestion - Not considered an ingestion hazard. However, if excessive amounts of dust or particulates are swallowed, treat symptomatically and supportively. Get medical attention.
Notes to Physician - Inhalation of metal fume or metal oxides may produce an acute febrile state, with cough, chills, weakness, and general malaise, nausea, vomiting, muscle cramps, and remarkable leukocytosis. Treatment is symptomatic, and condition is self limited in 24-48 hours. Chronic exposure to dusts may result in pneumoconiosis of mixed type.

5. FIRE FIGHTING MEASURES

Flash Point (Method) - Not applicable
Flammable Limits (% volume in air) - Not applicable
Auto ignition Temperature - Not applicable
Extinguishing Media - For molten metal, use dry powder or sand. For steel dust use or dry sand, water, foam, argon or nitrogen.
Special Fire Fighting Procedures - Do not use water on molten metal. Do not use Carbon Dioxide (CO_2). Firefighters should not enter confined spaces without wearing NIOSH/MSHA approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.
Unusual Fire or Explosion Hazards - Steel products do not present fire or explosion hazards under normal conditions. Any non-oxidized fine metal particles/ dust generated by grinding, sawing, abrasive blasting, or individual customer processes may produce materials that the customer should test for combustibility and other hazards in accordance with applicable regulations. High concentrations of combustible metallic fines in the air may present an explosion hazard.

6. ACCIDENTAL RELEASE MEASURES

Precautions if Material is Spilled or Released - Emergency response is unlikely unless in the form of combustible dust. Avoid inhalation, eye, or skin contact of dusts by using appropriate precautions outlined in this SDS (see section 8). Fine turnings and small chips should be swept or vacuumed and placed into

appropriate disposable containers. Keep fine dust or powder away from sources of ignition. Scrap should be reclaimed for recycling. Prevent materials from entering drains, sewers, or waterways. Specific standards and regulations may be applicable to materials generated by individual customer processes. As appropriate, these standards and regulations should be consulted for applicability.
Fire and Explosion Hazards - Some customer processes may generate combustible dust that may require specific precautions when cleaning spills or releases of dust.
Environmental Precautions - Some grades of steel may contain reportable quantities of alloying elements. See Section 15 for additional information.
Waste Disposal Methods - Dispose used or unused product in accordance with applicable Federal, State, and Local regulations. Please recycle.

7. HANDLING AND STORAGE

Storage Temperatures - Stable under normal temperatures and pressures.
Precautions to be Taken in Handling and Storing - Store away from strong oxidizers. Dusts and/or powders, alone, or combined with process specific fluids, may form explosive mixtures with air. Applicable Federal, state and local laws and regulations may require testing dust generated from processing of steel products to determine if it represents a fire or explosion hazard and to determine appropriate protection methods. Avoid breathing dusts or fumes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Operations with potential for generating high concentrations of airborne particulates or fumes should be evaluated and controlled as necessary.
Eye Protection - Use safety glasses. Dust resistant safety goggles are recommended under circumstances where particles could cause mechanical injury such as grinding or cutting. Face shield should be used when welding or cutting.
Skin - Appropriate protective gloves should be worn as necessary. Good personal hygiene practices should be followed including cleansing exposed skin several times daily with soap and water, and laundering or dry cleaning soiled work clothing.
Respiratory Protection - NIOSH/MSHA approved dust/fume/mist respirator should be used to avoid excessive exposure. See Section 3 for component material information exposure limits. If such concentrations are sufficiently high that this respirator is inadequate, or high enough to cause oxygen deficiency, use a positive pressure self-contained breathing apparatus (SCBA). Follow all applicable respirator use, fitting, and training standards and regulations.
Ventilation - Provide general and/or local exhaust ventilation to control airborne levels of dust or fumes below exposure limits.
Exposure Guidelines - No permissible exposure limits (PEL) or threshold limit values (TLV) exist for steel. See Section 3 for component materials. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor - Red, Grey or other color steel panels.
Boiling Point - Not applicable
Melting Point - Approximately 2800 ^{o}F
pH - Not applicable
Specific Gravity (at 15.6^{o}C) - Not applicable
Density (at 15.6 ^{o}C) - Not applicable
Vapor Pressure - Not applicable
Vapor Density (air = 1) - Not applicable
% Volatile, by Volume - Not applicable
Solubility in Water - Insoluble.
Evaporation Rate (Butyl Acetate = 1) - Not applicable
Other Physical and Chemical Data - None

10. STABILITY AND REACTIVITY

Stability - Stable
Conditions to Avoid - Steel at temperatures above the melting point may liberate fumes containing oxides of iron and alloying elements. Avoid generation of airborne fume.
Hazardous Polymerization - Will not occur.
Incompatibility (Materials to Avoid) - Reacts with strong acids to form hydrogen gas. Do not store near strong oxidizers.
Hazardous Decomposition Products - Metallic fumes may be produced during welding, burning, grinding, and possibly machining or any situation with the potential for thermal decomposition. Refer to ANSI Z49.1

11. TOXICOLOGICAL INFORMATION

The primary component of this product is iron. Long-term exposure to iron dusts or fumes can result in a condition called siderosis which is considered to be a benign pneumoconiosis. Symptoms may include chronic bronchitis, emphysema, and shortness of breath upon exertion. Penetration of iron particles in the skin or eye may cause an exogenous or ocular siderosis which may be characterized by a red-brown pigmentation of the affected area. Ingestion overexposures to iron may affect the gastrointestinal, nervous, and hematopoietic system and the liver. Iron and steel founding, but not iron or iron oxide, has been listed as carcinogenic (Group 1) by IARC.

When this product is welded, fumes are generated. Welding fumes may be different in composition from the original welding product, with the chief component being ordinary oxides of the metal being welded. Chronic health effects (including cancer) have been associated with the fumes and dusts of individual component metals (see above), and welding fumes as a general category have been listed by IARC as a carcinogen (Group 2B). There is also limited evidence that welding fumes may cause adverse reproductive and fetal effects. Evidence is stronger where welding materials contain known reproductive toxins, e.g., lead which may be present in the coating material of this product.

Breathing fumes or dusts of this product may result in metal fume fever, which is an illness produced by inhaling metal oxides. These oxides are produced by heating various metals including cadmium, zinc, magnesium, copper, antimony, nickel, cobalt, manganese, tin, lead, beryllium, silver, chromium, aluminum, selenium, iron, and arsenic. The most common agents involved are zinc and copper.

This product may contain small amounts of manganese. Prolonged exposure to manganese dusts or fumes is associated with "manganism", a Parkinson-like syndrome characterized by a variety of neurological symptoms including muscle spasms, gait disturbances, tremors, and psychoses.

This product may contain small amounts of cadmium. Primary target organs for cadmium overexposure are the lung and the kidney. Because of its cumulative nature, chronic cadmium poisoning can cause serious disease which takes many years to develop and may continue to progress despite cessation of exposure. Progression of the disease may not reflect current exposure conditions. It is also capable of causing a painful osteomalacia called “Itai-Itai” in postmenopausal women, and has caused developmental effects and/or reproductive effects in male and female animals. Cadmium is a listed carcinogen by NTP, OSHA, and IARC (Group 1).

This product may contain small amounts of chromium. Prolonged and repeated overexposure to chromium dusts or fumes may cause skin ulcers, nasal irritation and ulceration, kidney damage and cancer of the respiratory system. Chromium is skin sensitizer. Cancer is generally attributed to the hexavalent (+6) form of chromium which is listed as a carcinogen by NTP and IARC (Group 1).

This product may contain small amounts of nickel. Prolonged and repeated contact with nickel may cause sensitization dermatitis. Inhalation of nickel compounds has caused lung damage as well as sinus, nasal and lung cancer in laboratory animals. Nickel is a listed carcinogen by NTP and IARC (Group 1).

This product may contain small amounts of vanadium. Adverse effects from dermal, inhalation or parenteral exposure to various vanadium compounds have been reported. The major target for vanadium pentoxide toxicity is the respiratory tract. Fumes or dust can cause severe eye and respiratory irritation, and systemic effects. Chronic bronchitis, green tongue, conjunctivitis, pharyngitis, rhinitis, rales, chronic productive cough,

and tightness of the chest have been reported following overexposure. Allergic reactions resulting from skin and inhalation exposures have also been reported. A statistical association between vanadium air levels and lung cancer has been suggested, but vanadium currently is not regarded as a human carcinogen.

This product may contain small amounts of lead. Lead can accumulate in the body. Consequently, exposure to fumes or dust may produce signs of polyneuritis, diminished vision and peripheral neuropathy, such as tingling and loss of feeling in fingers, arms and legs. Lead is a known reproductive and developmental toxin. It is also associated with central nervous system disorders, anemia, kidney dysfunction and neurobehavioral abnormalities. The brain is a major target organ for lead exposure. Elemental lead is listed as an IARC 2B carcinogen.

The product may contain small amounts of copper. Copper dust and fumes can irritate the eyes, nose and throat causing coughing, wheezing, nosebleeds, ulcers and metal fume fever. Other effects from repeated inhalation of copper fumes include a metallic or sweet taste, and discoloration of skin, teeth or hair. Copper also may cause an allergic skin reaction. Overexposure to copper can affect the liver.

12. ECOLOGICAL INFORMATION

Aquatic Ecotoxicological Data - No specific information available on this product.
Environmental Fate Data - No specific information available on this product.

13. DISPOSAL CONSIDERATIONS

Recovery and reuse, rather than disposal, should be the ultimate goal of handling efforts. Dispose in accordance with federal, state, and local health and environmental regulations. Prevent materials from entering drains, sewers, or waterways.

14. TRANSPORT INFORMATION

DOT Proper Shipping Name - Not regulated
DOT Hazard Classification - Not regulated
UN/NA Number - Not applicable
DOT Packing Group - Not applicable
Labeling Requirements - Not applicable
Placards - Not applicable
DOT Hazardous Substance - Not applicable
DOT Marine Pollutant - Not applicable

15. REGULATORY INFORMATION

This product is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, dusts and fumes from this product may be combustible or hazardous and require protection to comply with applicable Federal, state and local laws and regulations.

California Proposition 65:

⚠ **WARNING:** This product can expose you to chemicals including antimony [oxide], arsenic, beryllium, chromium [hexavalent], cobalt, cadmium, lead, and nickel which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Massachusetts Substance List: Aluminum, Antimony, Arsenic, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Glycine, Hydrochloric acid, Lead, Magnesium, Manganese, Molybdenum, Nickel, Nitrogen, Phosphorus, Potassium Hydroxide, Selenium, Silicon, Sodium Nitrite, Sulfur, Tin, Titanium, Tungsten, Vanadium, Zinc

Pennsylvania Hazardous Substance List: Aluminum, Antimony, Arsenic, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Glycine, Hydrochloric acid, Lead, Magnesium, Manganese, Molybdenum, Nickel, Nitrogen, Phosphorus, Potassium Hydroxide, Selenium, Silicon, Sodium Nitrite, Sulfur, Tin, Titanium, Tungsten, Vanadium, Zinc

New Jersey Hazardous Substance List: Aluminum, Antimony, Arsenic, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Glycine, Hydrochloric acid, Lead, Magnesium, Manganese, Molybdenum, Nickel, Nitrogen, Phosphorus, Potassium Hydroxide, Selenium, Silicon, Sodium Nitrite, Sulfur, Tin, Titanium, Tungsten, Vanadium, Zinc

Toxic Substances Control Act (TSCA)
Components of this product are listed on the TSCA Inventory.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
Steel is not reportable, however, it contains hazardous substances that may be reportable if released in pieces with diameters less than or equal to 0.004 inches.

Chemical Name	Reportable Quantity (in lb)
Chromium	5,000
Copper	5,000
Glycine	5,000
Hydrochloric Acid	5,000
Nickel	100
Potassium Hydroxide	1,000
Zinc	1,000

Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III

SECTION 311/312 HAZARD CATEGORIES: Immediate Health Effect, Delayed Health Effect

This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right – To – Know Act of 1986 (40 CFR 372):

SECTION 313 REPORTABLE INGREDIENTS:

Chemical Name	CAS Number	Concentration (% by weight)	Reportable
Aluminum	7429-90-5	0.0-0.01 Some grades up to 3.0%	Yes – Greater than 1%
Chromium	7440-47-3	0.01-1.5	Yes – Greater than 0.1%
Copper	7440-50-8	<0.9 Some grades up to 3.5%	Yes – Greater than 1%
Hydrochloric acid	7647-01-0	Some grades up to 3%	Yes – Greater than 1%
Manganese	7439-96-5	<6.0	Yes – Greater than 1%
Nickel	7440-02-0	0.01-2.0	Yes – Greater than 0.1%
Zinc	7440-66-6	Some grades up to 10%	Yes for Galvinized – Greater than 1%

Concentrations based on analytical data and process knowledge of typical products distributed by the facility.

16. OTHER INFORMATION

This SDS covers Nucor product as delivered from the Nucor facility, but does not include chemicals that may be applied by subsequent handlers and/or distributors of this product. This could include a variety of materials including oils, paints, galvanization, etc. that are not included in this SDS. Additionally, specialty orders may require application of coating material not listed in this SDS. SDSs for any Nucor-applied specialty coating will be provided separately. During welding, precautions should be taken for airborne contaminants that may originate from components of the welding rod. Arc or spark generated when welding or burning could be a source of ignition for combustible and/or flammable materials. The information in this SDS was obtained from sources which we believe are reliable; however, the information is provided without any representation or warranty, expressed or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of this product.

SAFETY DATA SHEET
Glass Mineral Wool with ECOSE® Technology
According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name Glass Mineral Wool with ECOSE® Technology

Product number KI_DP_101 (GHS)

Synonyms; trade names EcoBatt® (UnfacedandFaced) Building Insulation, EcoBatt® QuietTherm® (Unfaced and Faced) Building Insulation, Acoustical/IB Board, Acoustical Smooth Board, Air Duct Board (Atmosphere™), KB Blanket, Black Acoustical Board, Black Diffuser Board, Condensation Control Blanket, Duct Liner (Atmosphere™), Duct Wrap Faced and Unfaced (Atmosphere™), Earthwool® 1000º Pipe Insulation*, ET Batt*, ET HD Blanket, ET Blanket*, ET Board*, ET Panel*, Equipment Liner M, Everbilt (Unfaced and Faced) Building Insulation, Fabrication Board*, Flexible Duct Material, Guardian (Unfaced and Faced) Building Insulation, Hullboard*, Earthwool Insulation Board (Faced and Unfaced)*, KF_110*, KFR/ET Range Insulation*, KNSeries*, Manufactured Housing Duct Board, Manufactured Housing Insulation, Metal Building Insulation,Metal Building Cavity Insulation, Metal Building Filler Insulation, Earthwool Pipe & Tank Insulation*, Atmosphere Rigid Plenum Liner, Sill Sealer, Wall & Ceiling Liner M, Guardian by Knauf Insulation, Inner Safe™ Batt, EcoBatt® IRD, EcoRoll® Insulation, Basement Blanket Insulation

Revision date: 10/22/2020

Recommended use of the chemical and restrictions on use

Application Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.

Uses advised against None known.

Details of the supplier of the safety data sheet

Supplier
Knauf Insulation, Inc.
One Knauf Drive
Shelbyville
IN 46176-1496
Tel: 800 825 4434
www.knaufinsulation.us
sds@knaufinsulation.com

Region: United States, Central & South America

Emergency telephone number

Emergency telephone 24hrs: Chemtrec Tel: 800 424 9300

Glass Mineral Wool with ECOSE® Technology

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This product is regulated as a nuisance dust under OSHA criteria.

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Contains None.

Hazard pictogram None.

Signal word None.

Precautionary statements None.

Supplemental label information None.

The following sentences and pictograms apply to this product:
The mechanical effect of fibres in contact with skin may cause temporary itching.

http://www.knaufinsulation.com/comfort-and-handling

Other hazards

Physical Hazards None.

Health Hazards Mechanical irritation of the skin, eyes and upper respiratory system.

Environmental Hazards None.

Main symptoms Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

***Heat-Up Precautions** When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. See section 8 & 10

Glass Mineral Wool with ECOSE® Technology

3. Composition/information on ingredients

Mixtures

Biosoluble glass mineral wool	**82 - 100%**
CAS number: —	
Ingredient notes:(1)(2)	
Classification	
Not Classified	

Thermo set, inert polymer bonding agent derived from plant starches	**0 - 18%**
CAS number: —	
Classification	
Not Classified	

The full text for all hazard statements is displayed in Section 16.

Ingredient notes

(1) Man made vitreous (silicate) fibers with random orientation with alkaline oxide and alkali earth oxide ($Na_2O+K_2O+CaO+MgO+BaO$) content greater than 18% by weight meeting the requirements of Note Q of regulation n° 1272/2008 and therefore not classified carcinogenicity.
(2) All Knauf Insulation products covered by this SDS are independently certified by EUCEB to be manufactured using biosoluble glass formulations and thus exempt from labeling under NTP or California Prop 65 requirements.

Specific chemical identity and/or exact percent concentration is withheld as trade secret.

Glass Mineral Wool with ECOSE® Technology

4. First-aid measures

Description of first aid measures

General information Show this Safety Data Sheet to the medical professional in attendance. If symptoms occur, follow first aid measures as appropriate.

Notes to Physician: No specific recommendations.

Inhalation Remove from exposure. Rinse the throat and clear dust from airways.

Ingestion Drink plenty of water if accidentally ingested.

Skin Contact If mechanical irritation occurs, remove contaminated clothing and wash skin gently with cold water and soap.

Eye contact Rinse abundantly with water for at least 15 minutes.

Most important symptoms and effects, both acute and delayed

General information Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

Indication of immediate medical attention and special treatment needed

General information If any adverse reaction or discomfort continues from any of the above exposures, seek professional medical advice.

Specific treatments No specific recommendations.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Water, foam, carbon dioxide (CO2), and dry powder.

Special hazards arising from the substance or mixture

General information Products do not pose a fire hazard in use; however, some packaging materials or facings may be combustible. Products of combustion from product and packaging - carbon dioxide, carbon monoxide and some trace gases such as ammonia, nitrogen oxides and volatile organic substances.

Advice for firefighters

General information In large fires in poorly ventilated areas involving packaging materials respiratory protection / breathing apparatus may be required.

Glass Mineral Wool with ECOSE® Technology

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Minimize direct contact with skin in order to prevent mechanical itching. In dusty environments, use suitable respiratory protection such as 3M 8210, N95 or equivalent. Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments. Where possible, use natural ventilation during installation in order to minimize dust levels.

After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching. Dispose of surplus product in accordance with local regulations.

Use personal protection recommended in Section 8 of the SDS.

Environmental precautions

Environmental precautions Not relevant.

Methods and material for containment and cleaning up

Methods for cleaning up In dusty environments, use vacuum equipment where possible to minimize dust levels.

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Assure proper respiratory protection if dust potential exceeds PEL/TLV.

Conditions for safe storage, including any incompatibilities

Storage precautions To ensure optimum product performance; when packaging is removed or opened; products should be stored inside or covered to protect them from ingress of rain water or snow. Storage arrangements should ensure stability of stacked products and use on a first in first out basis (FIFO) is recommended.

Specific end uses(s)

Specific end use(s) Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.

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8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Biosoluble glass mineral wool

Long-term exposure limit (8-hour TWA): ACGIH, (Notes: (A3)) 1 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): NIOSH 5 mg/m³ Mineral wool fiber, total particulate
Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³ Particulates not otherwise regulated (PNOR), respirable fraction
Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³ Particulates not otherwise regulated (PNOR), total dust

ACGIH = American Conference of Governmental Industrial Hygienists.
OSHA = Occupational Safety and Health Administration.

NIOSH = The National Institute for Occupational Safety and Health.

Ingredient comments	(A3) - Fibers longer than 5 µm; diameter less than 3 µm; aspect ratio greater than 5:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective) phase contrast illumination. Biosoluble glass mineral wool - See section 3.

Exposure controls

Appropriate engineering controls	Maintain sufficient mechanical or natural ventilation to assure fiber concentrations remain below PEL/TLV. Use local exhaust if necessary. Power equipment should be equipped with properly designed dust collection devices.
Eye/face protection	Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments.
Other skin and body protection	Minimize direct contact with skin in order to prevent mechanical itching.
Hygiene measures	After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching.
Respiratory protection	In dusty environments, use suitable respiratory protection.
Environmental exposure controls	Not relevant.
*** Heat-Up Precautions:**	When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. The duration of release is dependant upon the thickness of the insulation, binder content and the temperature applied. Adequate ventilation should be provided. In confined spaces or where ventilation is not possible, occupants should wear appropriate self-contained breathing apparatus.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Solid. Rolls. Panel. Loose fiber.
Color	Brown.
Odor	Not relevant.
Odor threshold	No data available.
pH	Not relevant.
Melting point	Not relevant.

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Initial boiling point and range	Not relevant.
Flash point	Not relevant.
Evaporation rate	Not relevant.
Flammability (solid, gas)	Not relevant.
Upper/lower flammability or explosive limits	Not relevant.
Vapor pressure	Not relevant.
Vapor density	Not relevant.
Relative density	7 - 96 kg/m³
Solubility(ies)	Generally chemically inert and slightly soluble in water.
Partition coefficient	Not relevant.
Auto-ignition temperature	Not relevant.
Decomposition Temperature	Not relevant.
Viscosity	Not relevant.
Explosive properties	Not relevant.
Oxidizing properties	Not relevant.
Nominal diameter of fibers.	3 - 8µm
Length weight geometric mean diameter less 2 standard errors	< 6 µm
Orientation of fibers	Random

10. Stability and reactivity

Reactivity	None.
Stability	Binder will decompose above 200°C.
Possibility of hazardous reactions	None.
Conditions to avoid	Heating above 200 °C.
Materials to avoid	Hydrofluoric acid will react with and dissolve glass.
Hazardous decomposition products	None in normal conditions of use. When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. The duration of release is dependant upon the thickness of the insulation, binder content and the temperature applied. Adequate ventilation should be provided. In confined spaces or where ventilation is not possible, occupants should wear appropriate self-contained breathing apparatus.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

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Notes (oral LD_{50})	No data were identified for the product as a whole. Data are for constituents: Biosoluble glass mineral wool - Not applicable. Thermo set, inert polymer bonding agent derived from plant starches. - Not applicable.

Acute toxicity - dermal

Notes (dermal LD_{50})	No data were identified for the product as a whole. Data are for constituents: Biosoluble glass mineral wool - Not applicable. Thermo set, inert polymer bonding agent derived from plant starches. - Not applicable.

Acute toxicity - inhalation

Notes (inhalation LC_{50})	No data were identified for the product as a whole. Data are for constituents: Biosoluble glass mineral wool - Not applicable. Thermo set, inert polymer bonding agent derived from plant starches. - Not applicable.

Skin corrosion/irritation

Skin corrosion/irritation	May cause mechanical irritation to skin.

Serious eye damage/irritation

Serious eye damage/irritation	May cause mechanical irritation to eyes.

Respiratory sensitization

Respiratory sensitization	No data were identified for this product or its constituents.

Skin sensitization

Skin sensitization	No data were identified for this product or its constituents.

Germ cell mutagenicity

Genotoxicity - in vitro	No data were identified for this product or its constituents.
Genotoxicity - in vivo	No data were identified for this product or its constituents.

Carcinogenicity

Carcinogenicity	Results from a biopersistence test by intratracheal instillation has shown that fibers in this product longer than 20 µm have a weighted half-life less than 40 days, thus this product is not classified as a carcinogen. None of the components of this product are listed as a carcinogen by OSHA, IARC or NTP.

Reproductive toxicity

Reproductive toxicity - fertility	No data available for this product or its constituents.
Reproductive toxicity - development	No data available for this product or its constituents.

Specific target organ toxicity - single exposure

STOT - single exposure	No data were identified for this product or its constituents.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	No data were identified for this product or its constituents.

Aspiration hazard

Aspiration hazard	Not relevant.

Inhalation	Mechanical irritation to upper respiratory tract.
Ingestion	Non-hazardous when ingested.
Skin Contact	Mechanical irritation to skin.
Eye contact	Mechanical irritation to eyes.

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Medical Symptoms Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

12. Ecological information

Toxicity This product is not ecotoxic to air, water or soil, by composition.

Persistence and degradability

Persistence and degradability Inert inorganic product with Thermo set, inert polymer bonding agent derived from plant starches; 0 - 18%

Bioaccumulative potential

Bio-Accumulative Potential Will not bioaccumulate.

Partition coefficient Not relevant.

Mobility in soil

Mobility Not considered mobile. Less than 1% leachable organic carbon if landfilled.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of in accordance with all applicable regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal methods This product is not regulated under RCRA Hazardous Waste Regulations. May be disposed in landfill. If unsure, contact the local office of the USEPA, your local public health department or the local landfill regulators.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

UN No. (International) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Transport hazard class(es)

Transport Labels (International) No transport warning sign required.

Packing group

Packing group (International) Not applicable.

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

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Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

Regulatory Status This product is regulated as a nuisance dust under OSHA criteria.
In accordance with industry practice, Knauf Insulation has decided to continue to provide its customers with the appropriate information for the purpose of assuring safe handling and use of mineral wool throughout the product life.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
Not regulated.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
Not regulated.

SARA 313 Emission Reporting
Not listed.

SARA (311/312) Hazard Categories
Not regulated.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins
This product is exempt from labeling requirements under this Act.

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Inventories

US - TSCA

All the ingredients are listed or exempt.

16. Other information

Abbreviations and acronyms used in the safety data sheet

CAS: Chemical Abstracts Service.
IARC: International Agency for Research on Cancer.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
NIOSH: The National Institute for Occupational Safety and Health.
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic substance.
PEL: Permissible Exposure Limit.
SARA: Superfund Amendments and Reauthorization Act.
TLV: Threshold Limit Value.
TSCA: Toxic Substances Control Act.
USEPA: United States Environmental Protection Agency.
vPvB: Very Persistent and Very Bioaccumulative.

General information

All products manufactured by Knauf Insulation are made of non-classified fibers and are certified by EUCEB. Products meeting EUCEB certification requirements can be recognised by the EUCEB logo printed on the packaging.

Further information can be obtained from:

www.euceb.org www.knaufinsulation.com

Revision comments §2 [US]

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SDS No. 4662

Other information

In 2001, the International Agency for Research on Cancer (IARC) reclassified glass mineral wool fibres from Group 2B (possibly carcinogenic) to Group 3 «agent which cannot be classified as for their carcinogenicity to humans». (See Monograph Vol 81, http://monographs.iarc.fr/)

This Safety Data Sheet / Product Data Sheet does not constitute a workplace assessment.
Information contained in this document represents the state of our knowledge regarding this product as of the date of issue of the document. Attention of users is drawn to possible risks taken when the product is used for other applications than the ones it has been designed for.