

SAFETY DATA SHEET (SDS)

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SECTION I - PRODUCT NAME (s):

1. **DELTA® -?A & -? BOARD, Unfaced Mineral Wool - all densities***
2. **DELTA® -?A & -? FLEX Mineral Wool BLANKET (No Metal Mesh)- all densities**
3. **DELTA® -CW?A BOARD, Unfaced & Faced Mineral Wool - all densities**
4. **DELTA® FACED BOARD, Mineral Wool - all densities***
5. **DELTA® LAMELLA, Mineral Wool - all facings - all densities***
6. **DELTA® -?A & -? MARINE BOARD, unfaced Mineral Wool - all densities***
7. **DELTA® METAL-MESH BLANKET, Mineral Wool - all facings - all densities**
8. **DELTA® SAFING BOARD, Mineral Wool - all thickness(s)**
9. **DELTA® SA-FIRE BOARD, Sound Attenuation Mineral Wool - all thickness(s)**
10. **DELTA® BASEMENT BOARD, Mineral Wool - all thickness(s)**
11. **DELTA® DECK PLUGS, Trapezoid Shaped Mineral Wool Strips**
12. **DELTA® -?A CUT BOARD, Mineral Wool Narrow Strips- all densities**

* See HEAT-UP PRECAUTIONS in SECTION IX

SECTION II - PRODUCT INGREDIENTS

1. Chemical Name:	Mineral Wool Fiber		
CAS Number:	None Assigned		
Common Name(s):	Rock Wool, Slag Wool, Mineral Wool Batt or Felt		
Exposure Limits:	OSHA PEL	ACGIH TLV	OTHER
Total Dust	15mg/M ³	10mg/M ³	N.A.
Respirable Dust	5mg/M ³	5mg/M ³	1 f/cc (Respirable)**
Percent	94% to 99.5%		(Workplace Exposure Guideline)

** Under the acceptance of the Health & Safety Partnership Program, Rock Wool Manufacturing Company recommends a maximum workplace exposure of 1 respirable fiber/ cc.

2. Chemical Name:	Modified Urea extended Phenolic Cured Resin		
CAS Number:	25104-55-6		
Common Name(s):	Binder, Thermal Set Resin, Resin		
Exposure Limits:	OSHA PEL	ACGIH TLV	OTHER
	N.A.	N.A.	N.A.
Percent	from 0.08 % to 3 %		

3. Chemical Name: PetroleumHydrocarbon
CAS Number None Assigned
CommonName(s): Anti-dust Oil, Industrial Oils, Oil
Exposure Limits: OSHA PEL ACGIH TLV OTHER
N.A. 5mg/M³ (oilmist N.A.
Percent 0.01% to 0.5 if generated)

4. Chemical Name: Adhesive (Dried);
Applied to Faced Insulations as an adhesive (Except **DELTA® -CW?A BOARD**)
CAS Number: None Assigned, an article
Common Name(s): Solvent Based Adhesive
Exposure Limits: OSHA PEL ACGIH TLV OTHER
N.A. N.A. N.A.
Percent Less than 0.1%

5. Chemical Name: Continuous filament fibrous glass bonded together with phenolic cured resin; applied with adhesive to various Board Products as a Facing/Substrate.
CAS Number: 65997-17-3
Common Name(s) Fiber Glass Mat, Dura-Glass Laminating Mat
Exposure Limits: OSHA PEL ACGIH TLV OTHER
Total Dust 15mg/M³ or 10mg/M³ N.A.
Respirable Dust 5mg/M³ or 5mg/M³ 1 f/cc**
Percent Less than 1%

** Under the acceptance of the Health & Safety Partnership Program, Rock Wool Manufacturing Company recommends a maximum workplace exposure of 1 respirable fiber/ cc.

5A.-Subpart of Fiber Glass Mat. The following shows ingredients included in the composition of the bonded continuous filament fibrous glass.
Chemical Name: Modified Urea extended Phenolic Thermal Set Cured Resin
CAS Number: 9011-05-6
Common Name(s): Binder, Thermal Setting Resin, Resin
Exposure Limits OSHA PEL ACGIH TLV OTHERS
N. A. N.A. N.A.
Percent Less than 0.2%

6. Chemical Name: Vapor Retarder Facing for Insulation (Laminated kraft paper, continuous filament fibrous glass, & aluminum foil) including Self-Sealing Lap
CAS Number: None Assigned, "An Article" per CFR 1910.1200
Common Name(s): All Service Jacket (ASJ) Facing, Foil-Scrim-Kraft (FSK) Facing
Percent Less than 1%

6A. Subpart of Vapor Retarder Facing: The following shows ingredients included in the manufacturer of the facings plus self-sealing lap.

Components	CAS No.	OSHA PEL	ACGIH TLV
Filament Fibrous Glass	65997-17-3	N.A.	10mg/M ³
Antimony Tri-Oxide	1309-64-	0.5 mg/M ³	0.5 mg/M ³
Decabromodiphenyloxide	1163-19-5	5 mg/M ³	5 mg/M ³

SECTION III - PHYSICAL DATA

Boiling Point:	N.A.	Vapor Density:	(air=1) N.A.
Re-Melting Point (Mineral Wool):	>2000°F.	Specific Gravity:	Variable
Re-Melting Point (Fil. Fibrous Glass):	>1600°F.	Pure/Mixture:	Mixture
Vapor Pressure:	N.A.	% Volatile by Volume:	N.A.
Solubility in H ₂ O:	None	Evaporation Rate:	N.A.

Appearance and Odor: Yellowish in color. No appreciable odor. Some products have a aluminum foil, white kraft paper laminate, glass mat, or metal mesh facing.

SECTION IV - FIRE & EXPLOSION HAZARD DATA

Flash Point (°F.): Incombustible; Resin will pyrolyze at sustained temperatures above 500°F.

Flammability Limits: LEL= N.A. UEL= N.A.

Auto-Ignition Temperature (°F): N.A.

Extinguishing Media: Water, Foam, Dry Chemical, CO₂

Unusual Fire and Explosion Hazards*: No unusual fire and explosion hazards. However, paper and foil facings of some products can burn. Special care should be taken when working close to facings with any type of open flame.

Special Fire Fighting Instructions: Self-contained/ supplied-air breathing apparatus is recommended.

* See **HEAT-UP PRECAUTIONS** in SECTION IX

SECTION V - REACTIVITY DATA

Stability (conditions to avoid): Materials are stable.

Incompatibility (materials to avoid): Aluminum Foil may chemically react to high pH materials such as uncured portland cement with the presents of water.

Hazardous Decomposition Products: Facing, adhesive, and binder (resin) burns or decomposes in a fire causing acrid smoke. Decomposition products are carbon monoxide, carbon dioxide, carbon particulates and water.

Hazardous Polymerization: Will not occur

SECTION VI - HEALTH HAZARD DATA

Primary Route(s) of Entry: Inhalation, skin, and eye contact

Inhalation:

Acute: The release of mineral fibers during normal handling may cause short term irritation to the nose and/or throat.

Chronic: The International Agency for Research on Cancer (IARC), has classified mineral wool as a group 3 (“not classifiable as to carcinogenicity to humans”).

Skin Contact:

Acute: May cause transitory mechanical dermatitis. Skin absorption does not occur.

Chronic: None known

Eye Contact:

Acute: Direct contact will cause mechanical irritation.

Chronic: None known

SECTION VI - HEALTH HAZARD DATA (continued...)

Ingestion:

Acute: Unlikely to occur under normal conditions of use. If ingested, it may cause temporary irritation to the gastrointestinal (GI) tract (especially the stomach). Observe individual; if symptom develop, consult a physician.

Chronic: None known

HMIS Rating- Health: 1, Fire: 0, Reactivity: 0, Other: 0

NFPA Rating- Health: 1, Flammability: 0, Reactivity: 0

WHMIS Class- D2D-Irritant Delta products are not controlled products

Aggravated Medical Conditions: Pre-existing upper respiratory and lung diseases may be aggravated by dust.

The product is a mechanical irritant for skin, eyes, and upper respiratory system

Carcinogenicity:	NTP Listed	IARC Classified	OSHA Regulated
	No	Yes	No

Emergency & First-Aid Procedures:

Inhalation: Remove from exposure. Drink water to clear throat and blow nose to evacuate fibers.

Skin Contact: Frequent washing of skin surface with water to remove accumulated fibers will minimize irritation. If irritation persists consult a physician. Treat as a mechanical irritant.

Eye Contact: Flush eye with flowing water until irritation stops. If symptoms persist, seek medical attention.

Ingestion: Product is not intended to be ingested or eaten. If this product is ingested, irritation of the GI (gastrointestinal) tract may occur, and should be treated symptomatically. Rinse mouth with water to remove fibers, and drink plenty of water to help reduce the irritation. No chronic effects are expected following ingestion.

SECTION VII - SPILL, LEAK & DISPOSAL PROCEDURES

Action to take for spills: Normal clean-up procedures. Avoid creating dust.

Waste Disposal Method: Mineral wool fiber products are generally classified as a non-hazardous waste and disposal may be in land fill for noncritical materials.

Local regulations should be consulted.

EPA Hazardous Waste Number: N.A.

These materials are not regulated under the "RCRA" hazardous waste regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION (During Installation or Removal.)

Ventilation: Use sufficient natural or mechanical ventilation to maintain airborne dust concentration below Threshold Limit Value (TLV).

Respiratory Protection: Should the Permissible Exposure Limits (PEL) of RESPIRABLE fiber or dust in Section II of this MSDS be exceeded, use a NIOSH approved N-95 respirator.

Eye and Face: Safety glasses, goggles or face shields should be worn when materials are being handled, fabricated, or applied especially overhead.

SECTION VIII - SPECIAL PROTECTION INFORMATION (During Installation or Removal)

General: Wear long-sleeved, loose fitting clothing, gloves and head covering. Wash work clothes separately from other clothing to prevent possible mineral wool fiber migration to other clothes. Rinse washer after use.

SECTION IX - SPECIAL PRECAUTIONS AND OTHER COMMENTS

Handling and Storage:

Keep materials under cover, dry and minimize the generation of dust. Care should be taken to protect faced products from open flames and other sources of ignition. Care should be taken to protect hands when handling metal mesh facings with sharp edges.

HEAT-UP PRECAUTIONS: During initial heat-up in excess of 500°F.(260°C.), binder decomposition occurs. Smoke and an acrid odor may be produced. Adequate ventilation must be provided against fumes. If personnel and fumes are present, all areas and adjacent areas must be well ventilated.

SECTION X - Footnotes and ABBREVIATIONS:

ACGIH (U.S.)	American Conference of Governmental Industrial Hygienists
CAS (U.S.)	Chemical Abstract Service
EPA (U.S.)	Environmental Protection Agency
IARC (Int'l.)	International Agency for Research on Cancer
LEL	Lower exposure Limit
N. A.	Not Applicable or Not Assigned
NIOSH	National Institute of Occupational Safety and Health
NTP (U.S.)	National Toxicology Program
OSHA (U.S.)	Occupational Safety and Health Administration
PEL (U.S.)	Permissible Exposure Limit
RCRA (U.S.)	Resource Conservation and Recovery Act
TWA	Time Weighted Average
TLV	Threshold Limit Value
UEL	Upper Exposure Limit

The responsibility to provide a safe workplace remains with the user. As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state law(s). However, **THE MANUFACTURER MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.**