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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product identifier: Manniglas® 1900 and 2000
1.2 Relevant identified uses of the substance or mixture and uses advised against: Thermal and acoustical insulation media
1.3 Details of the supplier of the safety data sheet
Name: Lydall Performance Materials, Inc.
Address: 68 George Street
Green Island, NY USA 12183
Telephone number: 1-800-441-2466 or 1-518-273-6320
Fax number: 1-518-273-6361
E-mail: info@lydall.com
1.4 Emergency Telephone Number: 1-518-273-6320
Fax Number: 1-518-273-6361

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

MOST IMPORTANT HAZARD: The product does not present any hazard for final use. However, where a workplace assessment indicates there is a potential for a combustible dust hazard, the release of product dust during manufacturing or processing may result in the classification of the product as hazardous.
Adverse human health effects: Product dust may be irritating to eyes, skin and respiratory system.
Environmental effects: Presents no particular risk to the environment, provided the recommendations concerning disposal (see section 13) and any applicable national or local regulations are complied with.
Physical and chemical hazards - Fire or explosion: May form combustible dust concentrations in air during processing.
Classification of the product: According to European regulations (No.1272/2008), this product is classified as Manufactured Article.
OSHA/CLP/GHS Classification: Combustible dust

2.2 Label Elements

-Hazard pictograms: None
-Signal words: **Warning!**
-Hazard statements: May form combustible dust concentrations in air.
-Precautionary statements: None

2.3 Other Hazards: Product dust may be irritating to eyes, skin and respiratory system.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance name	Contents	CAS No.	EINECS No.	Classification
Chopped, continuous strand fiberglass (> 5 microns in diameter)	90-95%	65997-17-3	266-046-0	Not classified as dangerous
Polymers	5-10%	Proprietary	Proprietary	Not classified as dangerous

See Section 16 for full text of GHS Classifications.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye contact:	Do not rub your eyes. Dust particles may cause abrasive eye injury. Flush eyes with water, holding the eyelids apart for several minutes. Get medical attention if irritation persists.
Skin contact:	Do not rub or scratch. Rinse exposed skin with cold water then wash skin with soap and water. Do not use hot water as that opens skin pores and may increase fiber penetration and irritation. Remove contaminated clothing and launder before re-use. Get medical attention if irritation persists.
Inhalation:	Remove victim to fresh air. Drink water to clear throat and blow nose to remove dust. Get medical attention if irritation persists.
Ingestion:	If small quantities are swallowed, rinse out mouth with water. Drink plenty of water to help reduce irritation. If large amounts are swallowed or if irritation or discomfort occurs, get medical attention.

4.2 Most Important symptoms and effects, both acute and delayed:	May cause eye irritation. May cause mild skin and respiratory irritation.
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4.3 Indication of any immediate medical attention and special treatment needed:	No immediate treatment is normally required.
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See Section 11 for more detailed information on health effects.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media:	Use water, water fog, carbon dioxide, foam or dry chemical.
5.2 Special Hazards Arising from the Substance or	This product is not classified as flammable or combustible. However, where a workplace assessment indicates there is a potential for a combustible dust

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Mixture: hazard: Dust generated in cutting or other processing of this material may present a potential fire and explosion hazard if suspended in air at high concentrations. Settled dust presents a fire hazard. Re-suspension of the dust into the air by vibration, traffic, material handling, etc. in high concentrations in the presence of an ignition source could result in a dust explosion. Minimize the generation and accumulation of dust.

5.3 Advice for Fire-Fighters: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus for all fires involving chemical products.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing and equipment (see section 8). Avoid contact with skin, eyes or clothing. Do not breathe dust.

6.2 Environmental Precautions: Avoid release to the environment.

6.3 Methods and Material for Containment and Cleaning Up: Pick up material and place into a container for disposal. Where a workplace assessment indicates there is a potential for a combustible dust hazard: Wet down and collect in a manner to minimize the generation of airborne dusts or vacuum with a high efficiency vacuum cleaner. If a vacuum is used, explosion proof equipment is required. Non-sparking tools should be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentrations. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

6.4 Reference to Other Sections: Refer to Section 8 for personal protective equipment and Section 13 for disposal information.

SECTION 7: HANDLING and STORAGE

7.1 Precautions for Safe Handling Avoid contact with eyes, skin and clothing. Avoid creating and breathing dusts. Wear protective clothing and equipment as described in Section 8. Use only with adequate ventilation. Do not eat, drink or smoke when using this material. Launder contaminated clothing before re-use. Wash thoroughly with soap and water after handling. Minimize the generation and accumulation of dust.

Where a workplace assessment indicates there is a potential for a combustible dust hazard: Keep dust away from open flames, hot surfaces and sources of ignition. Follow good housekeeping practices to keep surfaces, including areas overhead such as piping, drop ceilings, ductwork, etc. free from settled dust. Dry powders can build static electricity charges when subjected to friction of transfer and in mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

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Empty containers retain product residues. Follow all SDS precautions in handling empty containers.

7.2 Conditions for Safe Storage, Including any Incompatibilities:

Store in a dry, well-ventilated area.

7.3 Specific end use(s):

Thermal and acoustical insulation media.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Fibrous glass, continuous filament (>3.5 microns in diameter)	5 mg/m3 (respirable) 15 mg/m3 (total dust) TWA OSHA PEL 1 f/cc TWA OSHA HSP* 5 mg/m3 inhalable or 1 f/cc TWA ACGIH TLV 5 mg/m3 or 2 fibre/mL TWA UK OEL 1 fibre.cm-3 VME France 0.25 respirable fibers/mL Germany
Polymers (as particulates not otherwise classified)	5 mg/m3 (Respirable) 15 mg/m3 (total dust) TWA OSHA PEL

* HSP = OSHA voluntary Health and Safety Partnership Program

Note: If not listed above, refer to local regulations for specific country exposure limits

8.2 Exposure Controls:

- Engineering Measures:

Use with adequate local exhaust ventilation to minimize exposures. Provide local exhaust ventilation where product is cut or processed in a manner that generates dust. Where a workplace assessment indicates there is a potential for a combustible dust hazard: It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e. there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

- Respiratory Protection:

If the occupational exposure limits are exceeded or irritation is experienced, wear an approved particulate respirator. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use in accordance with all applicable regulations (in the US follow OSHA 1910.134) and good Industrial Hygiene practice.

- Hand Protection:

Wear protective gloves to minimize skin contact. Barrier creams may be useful in reducing irritation.

- Eye/face Protection:

Wear safety glasses with side shields or dust proof goggles.

- Other Protective Clothing or Equipment:

Clothing with long sleeves and pants should be worn to avoid skin contact. Washing facilities should be available in the work area.

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SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties

Appearance:	White solid.
Odor:	Odorless.
Odor Threshold:	Not applicable
pH:	Not applicable
Melting/Freezing Point:	>1200°F (>650°C)
Boiling Point:	Not applicable
Flash Point:	Not applicable
Evaporation Rate:	Not applicable
(n-butylacetate =1)	
% Volatile by Volume:	0%
Lower Flammability Limit:	Not applicable
Upper Flammability Limit:	Not applicable
Vapor Pressure:	Not applicable
Vapor Density(Air=1):	Not applicable
Solubility:	Insoluble
Autoignition Temperature:	Not applicable
Decomposition Temperature:	Not determined
Viscosity:	Not applicable
Explosive Properties:	If assessed as a combustible dust hazard: High concentrations of dust in the presence of an ignition source could result in a dust explosion.
Oxidizing Properties:	Not applicable
Specific Gravity (H₂O= 1):	0.20
Molecular Formula:	Not determined
Molecular Weight:	Not determined

9.2 Other Information: None.

SECTION 10: STABILITY and REACTIVITY

10.1 Reactivity:	This material is not reactive under normal conditions.
10.2 Chemical Stability:	Stable
10.3 Possibility of Hazardous Reactions:	Will not occur.
10.4 Conditions to Avoid:	Avoid dust formation.
10.5 Incompatible Materials:	Avoid strong acids.
10.6 Hazardous Decomposition Products:	Combustion of polymer may generate oxides of carbon and hydrocarbons.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:

Eye Contact:	Dust may cause mechanical irritation and possible injury.
Skin contact:	Dust may cause mechanical irritation.
Inhalation:	Dust may cause nose, throat and upper respiratory tract irritation. Symptoms include coughing sneezing and scratchy throat.
Ingestion:	May cause irritation of the mouth and intestinal tract.
Acute toxicity:	No specific data is available
Skin corrosion/irritation:	Not a skin corrosive.
Eye damage/ irritation:	Dust may cause mechanical irritation and possible injury.
Respiratory Irritation:	Dust may be irritating to the respiratory system.
Respiratory Sensitization:	Not a respiratory sensitizer.
Skin Sensitization:	Not a skin sensitizer.
Germ Cell Mutagenicity:	Not classified a germ cell mutagen.
Carcinogenicity:	Continuous filament fiberglass is not classified as a carcinogen by OSHA, IARC, NTP, ACGIH or the EU CLP. None of the other components are classified as a carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
Reproductive Toxicity:	No effects on reproduction are expected.
Specific Target Organ Toxicity:	Single Exposure: No data available. Repeat Exposure: No data available.
Aspiration Toxicity:	Not an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

No data available.

12.2 Persistence and degradability:

No data available.

12.3 Bioaccumulative Potential:

No data available.

12.4 Mobility in Soil:

No data available.

12.5 Results of PVT and vPvB assessment:

Not required.

12.6 Other Adverse Effects:

None.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Dispose in accordance with local, state and national regulations.

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SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	N/A	Not classified for transport	N/A	N/A	N/A
Canadian TDG	N/A	Not classified for transport	N/A	N/A	N/A
EU ADR/RID	N/A	Not classified for transport	N/A	N/A	N/A
IMDG	N/A	Not classified for transport	N/A	N/A	N/A
IATA/ICAO	N/A	Not classified for transport	N/A	N/A	N/A

14.6 Special Precautions for User: None

14.7 Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code: Not determined.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

U.S. REGULATIONS:

CERCLA: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category for Section 311/312: Classified as per Section 2 of this SDS.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements, Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

U.S. STATE REGULATIONS

California Proposition 65: This product is not known to contain chemicals regulated under California Proposition 65.

INTERNATIONAL REGULATIONS:

REACH: This product is an article and not subject to registration.

RoHS (Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations): This product is RoHS compliant.

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INTERNATIONAL INVENTORIES

US Toxic Substances Control Act Inventory (TSCA): This product is an article and not subject to TSCA.

EU Chemical Inventory (EINECS)/REACH: This product is considered an article under EINECS and REACH.

Australian Inventory of Chemical Substances: This product is an article and not subject to chemical notification requirements.

China Inventory of Existing Chemicals and Chemical Substances: This product is an article and not subject to chemical notification requirements.

Japanese Existing and New Chemical Substances: This product is an article and not subject to chemical notification requirements.

Korean Existing Chemicals List: This product is an article and not subject to chemical notification requirements.

Philippine Inventory of Chemicals and Chemical Substances: This product is an article and not subject to chemical notification requirements.

Canadian CEPA New Chemical Notification: This product is an article and not subject to new chemical notification.

New Zealand: This product is an article and not subject to new chemical notification.

SECTION 16: OTHER INFORMATION

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

SDS Date of preparation/revision: 10-Jan-2019: Revised for EU CLP. Changes to sections 2, 3, 11, and 16.

Revision History:

19-Jun-2017: Updated combustible dust statement.
08-May-2015: Change in Section 2, and Format change.
07-Feb-2014: Format updated to GHS SDS: Changes to all sections.
14-Oct-2011: Comprehensive review and update.
28-Oct-2008: New MSDS

CLP/GHS Classification and H Phrases for Reference (See Section 3)

None

Disclaimer

The information presented on this SDS (1) provides details on material identity, manufacturer/supplier information, hazard characterization and prevention, emergency response and other specialized information, (2) is considered to be accurate to the best of our knowledge, information and belief as of the date of publication, (3) is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release of the material named, (4) should be read and used in conjunction with the company's relevant literature, (5) relates only to the specific material

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