Greenlam Industries Limited	SAFETY DATA SHEET	**Issue Date:** 01 October 2023 **Revision:** 05

Section 1:
PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Greenlam Laminates**
All Brands, Variants, Grades, Textures, Sizes, & Thicknesses

Trade Names: **Greenlam, New Mika, Clads, Lab Guardian, New Mika Fx, Sturdo, Stratus**
(all products technically called as HIGH PRESSURE DECORATIVE LAMINATES)

Manufacturer: **Greenlam Industries Ltd.,**
2nd Floor, West Wing, World Mark 1, Aerocity,
IGI Airport Hospitality District, New Delhi-110037
Telephone: 011-42791300

Web site: www. greenlam.com

Product uses: **Decorative surfacing materials for various furniture, doors, cubicles, lockers, exterior cladding, paneling and allied applications.**

In case of emergency contact:
USA-130-545-80079
International- +91 9717595676 or +91-011-42791399 (Ext. 485)

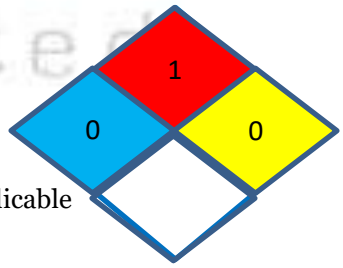
Section 2:
EMERGENCY OVERVIEW & HAZARD IDENTIFICATION

No known hazards for material as supplied.

Appearance/Odor: Thin to thick, rigid laminate sheets, various sizes, finishes thicknesses and colors. No significant odor.

For products in sheets or boards form:

NFPA Labeling: Health–0, Fire -1, Reactivity-0,
(0= minimal hazard, 1 =slight hazard, 2=moderate hazard, 3= severe hazard,
4= extreme hazard)



HMIS: Health-0, Flammability-1, Reactivity-0, PPE-B
GHS Classification: Not applicable. Material is classified as non-hazardous
GHS Signal Words with Hazard and Precautionary Statements: No Applicable
GHS Pictograms: Not Applicable
Route of Entry: None for the product as sold
Target Organs: None
Skin Contact: Solid Sheet may cut skin or cause abrasions if they are not handled properly
Eye Contact: No Hazard for product as sold
Respiratory Contact: No Hazard for product as sold
Ingestion: Not likely to occur and not expected to cause a significant toxic response.

Potential Health effects: Sanding, sawing, drilling, routing, etc. of this material during fabrication may generate airborne nuisance dust, fines, chips etc. This dust may cause eye, nose, skin, and upper respiratory tract irritation. Use of appropriate personal protection and/or engineering controls (such as local exhaust ventilation) should be employed whenever sanding, sawing, drilling, routing, etc. of this material. Refer Section 4 for first aid measures.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product does not contain regulated levels of NTP, IARC, or OSHA listed carcinogens

Component	CAS Number	% by Weight
Paper/Fiber	NA	40-70
Resins (PF & MF)	9003-35-4 & 9003-08-01	30-50
Biocides (EPA Approved)	NA	<0.1%

Section 4: FIRST AID AND MEASURES

Eye Contact: No hazard for product as sold. However, the product can have sharp corners and edges. During cutting, sawing, fabrication or routing or any such operations dust or fines may get generated. Use of eye protection recommended during handling and these operations. If dust gets into the eyes, immediately rinse affected eye for at least 15 minutes with clean water. Do not rub with your fingers or palm, it can aggravate eye injury. If irritation persists, seek medical attention.

Skin Contact: No hazard for product as sold when handled properly. However, they may cause cuts or abrasions if not handled properly. Use of suitable cut protection hand gloves is recommended. During cutting, sawing, fabrication or routing or any such operations fines or dust may get generated. If excess dust gets onto the skin, remove contaminated clothing and wash before reuse. Wash skin with soap and water. Seek medical attention if irritation persists.

Ingestion: Not likely to occur. During cutting, sawing, fabrication or routing or any such operations fines or dust may get generated. If dust gets into mouth, rinse with clean water. Seek medical attention if necessary.

Inhalation: No hazard for product is sold. During cutting, sawing, fabrication or routing or any such operations fines or dust may get generated. Use of dust protection PPE recommended during these operations. If excess dust is inhaled, move to fresh air. Seek medical attention if symptoms such as wheezing and/or shortness of breath occur.

Others - In case the products in form of heavy boards are required to be handled manually, insist on wearing protective toe safety shoes.

Section 5: FIRE FIGHTING MEASURES

Flash Point: Not applicable

Flammability Classification: Class Cs1d0 minimum as per EN 13501 (Products is capable of resisting a small flame attack - for a longer period - without substantial flame spread. In addition, they are also capable of undergoing thermal attack by a single burning item with sufficiently delayed and limited heat release. Very limited amount of smoke developed and no burning droplets or particles)

Some variants may exceed the above performance.

Explosion risk due to Mechanical Impact: Not applicable

Explosion risk due to Static Discharge: Not applicable for product as sold. Safety precautions and proper ventilation as recommended by NFPA-68 for Class ST-1 dusts should be followed for dust/chips arising during operations like fabrication, milling, sawing etc., from presenting an explosion hazard.

Suitable Extinguishing Media: CO_2, water, foam or dry chemical powder

Possible Products of Combustion: Various oxides of carbon and nitrogen.

Firefighters: Firefighters should wear self-contained breathing apparatus and full fire-fighting turnout gear.

Section 6:
ACCIDENTAL RELEASE MEASURES

Personal Precautions & Emergency procedures: Material is non-hazardous as sold. It is provided in the form of solid sheets or boards. Hence, spillage is not applicable.

Environmental precautions: None

Methods for Clean-up: Recover undamaged materials for reuse or reclamation. Sweep or pick up scrap material and dust and place in disposal containers.

Section 7:
HANDLING AND STORAGE

Handling: Institute necessary housekeeping measures to keep the product free from dust. Minimize dust generation and accumulation and prevent dust from entering eyes. Do not breathe dust. Avoid prolong skin contact with dust and/or filings. Cut, drill, saw, sand and finish, etc. in well-ventilated areas. Never allow dispersion of dust into air.

Storage: Store in dry, well-ventilated area and keep away from strong chemicals, solvents and excessive heat. Prolonged or extreme heat can cause damage to the surface.

Section 8:
EXPOSURE CONTROLS/PERSONAL PROTECTION EQUIPMENT

Exposure Guidelines	OSHA PEL	Exposure Guidelines	Material
Total Dust	15 mg/ m^3	Inhalable	Dust arising from cutting, drilling, milling etc. of the product
Respirable Dust	5 mg/ m^3	Respirable	

Engineering Controls:

Provide adequate ventilation to maintain exposure levels below applicable limits wherever fabrication works generate dust or fines.

Effective dust control and collection system must be provided. Spilled dust should preferably be collected using vacuum cleaning. Accumulation of dust on floor and structures should be prevented.

The system must be designed to effectively remove the dust generated and ensures prevention of dust escaping to work areas.

HPL dust is combustible. Hence, spark detection and extinguishing system must be provided in the dust collector ducting.

Measures to prevent and mitigate dust explosion such as dust-tight fittings for electrical connections and explosion vents should also be provided in the dust collection system.

Eye/face Protection: Wear safety glasses when sawing, sanding, drilling or routing.

Skin Protection: Wear appropriate gloves when installing, transporting, sawing, cutting, drilling, routing or handling during different fabrication stages.

Foot Protection: No special protection required unless heavy boards are handled. Wear safety shoes in such cases.

Respiratory Protection: Where airborne concentrations of dust are expected to exceed the allowable exposures approved respirator should be worn, chosen based on the form and concentration of the contaminant. Respirator usage must be in accordance with the OSHA Respiratory Protection Standard, 29 CFR 1910.134 or prevalent local regulation.

General Hygiene: Wash thoroughly after sawing, cutting, drilling, or routing. Have eyewash facilities at different points of work

Section 9:
PHYSICAL AND CHEMICAL PROPERTIES

Odor: None	**Lower Flammability Limit:** Not applicable
Odor Threshold: Not applicable	**Vapor Pressure:** Not applicable
Physical State: Solid sheet or board	**Vapor Density:** Not applicable
pH: Not applicable	**Specific Gravity:** 1.40
Freezing Point: Not applicable	**Solubility (water):** Insoluble
Boiling Point: Not applicable	**Auto-ignition Temperature:** Not applicable
Flash Point: Not applicable	**VOC release:** Less than 0.22 ppm
Evaporation Rate: Not applicable	**Formaldehyde release:** Less than 0.0073 ppm
Upper Flammability Limit: Not applicable	**Total Aldehyde release:** Less than 0.043 ppm
Decomposition Temperature: Not available	**Lower Explosion Limits**: Not applicable
	Upper Explosion Limit: Not applicable

Section 10: STABILITY AND REACTIVITY

Reactivity: Non-reactive

Conditions to Avoid: Avoid exposing to oxidizers, strong chemicals, alkaline solutions and solvents which will damage the surface appearance of the material. If spills occur, remove immediately from the material.

Incompatible Materials: No known incompatible material which may violently react.

Hazardous Decomposition Products: Thermal decomposition product may include various oxides of carbon and Nitrogen

Hazardous Polymerization: No hazardous polymerization or reactions occur.

Section 11 (a): TOXICOLOGICAL DATA-ACUTE EFFECTS

Acute Toxicity to Humans or Animals: Not expected to be toxic

Oral LD50: Not known

Dermal LD50: Not known.

Inhalation: See Section 2. Toxicity data not available

Eye Irritation: See Section 2. Toxicity data not available

Skin irritation: See Section 2. Toxicity data not available

Sensitization: No data for product

STOT, SE: No data for the product

Section 11 (b): TOXICOLOGICAL DATA- CHRONIC EFFECTS

Chronic Toxicity to Humans or Animals: Not expected to be toxic

Carcinogenicity:

This product may contain trace amounts of formaldehyde which is listed by IARC as carcinogenic. The ACGIH lists formaldehyde as a suspect human carcinogen. NTP: formaldehyde as carcinogenic. The Product has been proved to meet Greenguard Gold Certification Norms

Total Formaldehyde less than 0.0073 ppm (OSHA PEL = 0.7 ppm and STEL = 2 ppm)

HPL dust can cause irritation and skin allergy in some persons. Hence, dust control measures and suitable respiratory protection must be used.

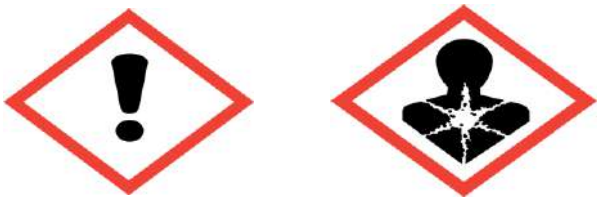
STOT, RE: No data for the product

Mutagenicity:

Reproductive Effects: No data for product.

Developmental Effects: No data for product

GHS Symbols:



Section 12: ECOLOGICAL INFORMATION

Eco-toxicity: No data for product
Persistence/Degradability: No data for product
Bio-accumulation / Accumulation: No data for product
Mobility in Environment: No data for product

Section 13: DISPOSAL CONSIDERATIONS

Disposal:
HPL - Material is non-hazardous and no special treatment is required for disposal. Disposal in landfill, co-processing in cement kiln or by other process must be in accordance with Federal, State and Local regulations.
Cutting & Sanding Dust - Material is non-hazardous and no special treatment is required for disposal. Disposal in landfill, co-processing in cement kiln or by other process must be in accordance with Federal, State and Local regulations.

Section 14: TRANSPORTATION INFORMATION

DOT Classification: Not Regulated
Transport Hazard Class: Not applicable
Packing group: Not applicable
ADR Classification: Not applicable
RID Classification: Not applicable
UN Number/Shipping name: Not available

Section 15:
REGULATORY INFORMATION

US Federal Regulations:

CAS Number: None
SARA 302 (EHS) Threshold Planning Quantity: None
SARA 304 Released Quantity of Extremely Hazardous substance: None
CERCLA or Superfund classification: None
RCRA Hazard Code: None

State Regulations:

Substance contained in this product known to the State of California (CA proposition 65) to cause cancer or other harm -Formaldehyde (CAS 50-00-0) in traces.

International Regulations:

EINECS: None
WHMIS (Canada): Product not classified as hazardous

Greenlam Industries Limited

Annexure 1: RISK ASSESSMENT

S. No.	Activity	Hazard	Risk Consequence	Risk Level	Recommended Controls
1	Handling and Storage of HPL Sheets & Compact Boards	Formaldehyde Fumes inhalation	Illness and Cancer in most severe case	Low	Adequate Ventilation to prevent accumulation of formaldehyde fumes
2	Handling of HPL	Cutting Hazard	Cut Injury	Medium	Cut Resistance Gloves
3	Handling of HPL Compact boards	Impact Hazard	Finger/Toes Injury	Medium	Impact Resistant Gloves & Steel Toe Boots
4	Machining, Cutting and Sanding of HPL	HPL Dust	Respiratory Disease	Medium	**i.** Respiratory Protection Mask **ii.** Dust Control and Collection System **iii.** Adequate ventilation in workplace
5			Skin Allergy/ Irritation	Medium	**i.** Use Cotton coverall and balaclava, ensure proper cleaning of dust from body after work **ii.** Provision of Eye wash and body shower
6			Eye Injury/ Itching	Medium	Eye protection goggles and face shield
7			Fire	Medium	**i.** Dustproof electrical equipment **ii.** Control on smoking and ignition sources **iii.** Spark Extinguishing system in ducting of dust collector **iv.** Fire Hydrant System
8			Dust Explosion	Low	**i.** Prevent accumulation of dust at ceiling, floor and structure **ii.** Vacuum Cleaning in place of dusting **iii.** Spark Extinguishing system in ducting of dust collector **iv.** Explosion relief panel in dust collector and ducting
9	Disposal of HPL cutting and HPL Dust	Cutting Hazard	Cut injury	Medium	Cut Resistance Gloves
		HPL Dust inhalation	Respiratory Disease	Medium	**i.** Respiratory Protection Mask **ii.** Dust Control and Collection System **iii.** Adequate ventilation in workplace
		Environmental Damage	Soil, Water pollution	Low	Dispose in Co-processing and according to local regulation

Glossary of terms:

ACGIH-AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
ASTM-AMERICAL SOCIETY FOR TESTING AND MATERIALS
ACC-CLEAN AIR ACT
ADR-INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD
CAS-CHEMICAL ABSTRACTS SERVICES
CFR-CODE OF FEDERAL REGULATIONS
CERCLA- COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT
DOT-DEPARTMENT OF TRANSPORTATION
EINECS: EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES
IARC-INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
LD50-LETHAL DOSE 50%
GHS-GLOBALLY ORGANIZED SYSTEM
HMIS-HAZARDOUD MATERIAL IDENTIFICATION SYSTEM
NFPA-NATIONAL FIRE PREVENTION ASSOCIATION
NTP-NATIONAL TOXICOLOGY PROGRAMME
OSHA-OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PEL-PERMISSIBLE EXPOSURE LIMIT
RCRA: RESOURCE CONSERATION AND RECOVERY ACT
RID- INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY RAIL
STOT, RE: SPECIFIC TARGET ORGAN TOXICITY, REPEATED EXPOSURE
STOT, SE: SPECIFIC TARGET ORGAN TOXICITY, REPEATED EXPOSURE
TLV-THRESHOLD LIMIT VALUE
WHMIS: WORK PLACE HAZARDOUS MATERIAL INFORMATION SYSTEM

Disclaimer: The information furnished herein is accurate, to the best of our current state of knowledge. However, we Greenlam Industries Limited assume no liability, what so ever, for the completeness/accuracy of the data contained herein. It is the sole responsibility of the user to determine the suitability. Certain hazards are described herein but we do not claim that these are the only hazards that exist. It is intended as information concerning our products and their application possibilities, and is therefore not intended as any form of guarantee with regard to any specific product characteristic.

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