MATERIAL SAFETY DATA SHEET

I. Chemical product and identification

Product Identities	Interlayer film for laminated glass
Chemical name	Ethylene - vinyl acetate copolymer
Chemical Formula	[CH2CH2]n [CH2CH(O2CCH3)-]m
Molecular Weight	Polymer
CAS#	N/A
CAS Name	N/A

II. Hazards identification

Emergency overview

May cause eye and skin irritation. May cause respiratory and digestive tract irritation.
The toxicological properties of this material have not been fully investigated.

Physical state	Solid
Color	Transparent to white
Odor	Faint

Immediate Health Effects

Eye	Irritation is possible.
Skin	LD50 2000 mg/kg (rats)
Ingestion	LD50 3200 mg/kg (rats)
Inhalation	N/A
Signs and Symptoms of Exposure	Not determined, though none are expected
Medical conditions Aggravated by Exposure	Not determined, though none are expected

Ingredients found on one of the OSHA designated carcinogen lists are listed below.

INGREDIENT NAME	IARC	NTP	OSHA	ACGIH
Vinyl Acetate	2B	None	None	A3

III. Compositions / Information on ingredients

Ingredient name	CAS Number	Weight %
Compounded thermoplastic copolymer with additives	Trade confidential	100
Ethylene – vinyl acetate	24937-78-8	> 98
Organic peroxide	Trade confidential	< 2.0

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IV. First aid measures	
Eye	If heated material should splash into eyes, flush eyes immediately with fresh water for 15 min. while holding the eyelids open. Remove contact lenses, if worn. Get immediate medical attention.
Skin	If molten material comes into contact with the skin, immerse skin under a running stream of water until cooled. Do not attempt to remove the solidified from the skin. Get immediate medical attention.
Ingestion	Harmful effects are not anticipated from swallowing small amounts.
Inhalation	Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention
Notes to Physician	Treat symptomatically and supportively.

V. Fire fighting measures	
Flammable properties	
Flash point	N/A , Flash point is anticipated to be greater than 200°C / 400°F
Upper Flammability Limit	N/A
Lower Flammability Limit	N/A
Autoignition Temperature	N/A
Extinguishing media	water spray, dry chemical, carbon dioxide (CO_2) or appropriate foam.
Fire Fighting Instructions	This material will burn although it is not easily ignited. If possible, water should be applied as a spray from a fogging nozzle since this is a surface burning material. The application of high velocity water will spread the burning surface layer.
Combustion Products	Normal combustion forms carbon dioxide, carbon monoxide, acetic acid and irritating smoke.

VI. Accidental release measures	
Protective Equipment	Use appropriate skin and eye protection.
Small Spill	Shovel or scoop up, solid residue waste disposal.
Large Spill	Shovel or scoop up, solid residue waste disposal.

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VII. Handling and storage	
Handling	Once the original package is opened, use up the product within 24h is recommended. Return all unused portions to original or comparable packaging and seal tight. Keep away from heat and sources of ignition. Use with adequate ventilation. Spilled material can make walking hazardous, potentially causing falls and serious injury. After handling, always wash hands thoroughly with soup and water.
Storage	Keep material in a cool dry place, well ventilated place away from incompatible material. Do not handle or store near open flame, heat or other sources of ignition. Protect material from direct sunlight. Material may accumulate static charges which may cause an electrical spark (ignition source). In order to maintain the product shelf life, the storage temperature should be less than 25°C. Refrain from directly pressing film rolls.

VIII. Exposure controls / Personal protection	
Exposure Limits	Although some of additives used in this product may have exposure guidelines, these additives are encapsulated in the product and no exposure would be expected under normal handling conditions.
Exposure Controls	Local exhaust ventilation of process equipment may be needed for controlling particulate exposures to below the recommended exposure limit.
Personal protection	
Eye/Face	Wear safety glasses, chemical goggles, or face shields. If material is heated, wear thermal resistance gloves, safety glasses and face shield.
Skin	If material is heated, wear insulated clothing to prevent skin contact.
Hand	Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material , skin contact should be minimized. Use gloves to protect from mechanical injury. Selection of gloves will depend on the task. Use gloves with insulation for thermal protection, when needed.
Respiratory	When required, use NIOSH approved respiratory protection.
Ingestion	Use good personal hygiene. Do not consume or store food in work area. Wash hands before smoking or eating.

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IX. Physical and chemical properties	
Physical State	Film or sheet
Appearance	Transparent to white
Odor	Faint, Characteristic
pH	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Evaporation Rate	N/A
Viscosity	N/A
Boiling Point	N/A
Freezing/Melting Point	N/A
Specific Gravity/Density	0.94-0.98 g/cm^3
Decomposition Temperature	N/A
Solubility (in water)	Insoluble

X. Stability and reactivity	
Chemical Stability	The product is stable. The product does contain chemical additives that are intended to react at temperatures above 100°C.
Condition to Avoid	Exposure in air to temperatures higher than 200oC / 400oF for times greater than several minutes can cause product to decompose and release hazardous fumes (such as carbon monoxide.)
Hazardous Decomposition Products	
Hazardous polymerization	Will not occur
Thermal Decomposition :	Decomposition products depend upon temperature, air supply and the presence of other materials. Not expected to decompose under normal conditions. Normal thermal processing may release fumes and other decomposition products. At temperatures exceeding the melt temperature, Fumes can be released and irritating. Decomposition products can include, and are not limited to : Alcohols, Aldehydes, Ketones and Organic Acids. Decomposition products can include trace amounts of Hydrocarbons.

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XI. Toxicological information	
Health Effects	Please refer to section II for available information on immediate health effects.
Carcinogenicity	Not applicable

XII. Ecological information	
Eco toxicity	Fish or birds may eat pieces of product which may obstruct their digestive tracts.
Environmental Fate	This material is not expected to be readily biodegradable.

XIII. Ecological information
Dispose of as hazardous waste in compliance with local and national regulations.

XIV. Transport information	
Shipping Name	Plastic sheets.
Hazard Class	N/A
Identification Number	N/A
Packing Group	N/A
Marine Pollutant	N/A

XV. Regulation information	
This product is not classified as hazardous under SARA 311	
OSHA Status	Ethylene vinyl acetate is not considered hazardous under OSHA
Safety Phrases	S 24/25 Avoid contact with skin and eyes. S 37 Wear suitable gloves. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S 28A After contact with skin, wash immediately with plenty of water

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XVI. Other information	
NFPA Rating	(estimated) Health: 1; Flammability: 1; Instability: 0 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extream)
Legend	ACIGH American Conference of Governmental Industrial Hygienists A1 - Confirmed human carcinogen A2 - Suspected human carcinogen A3 - Animal carcinogen A4 - Not classifiable as a carcinogen A5 - Not suspected as a human carcinogen NTP National Toxicology Program (Health and Human Services Dept., Public Health Service, NIH/NIEHS) IARC International Agency for Research on Cancer (World Health Organization) 1- Carcinogenic to humans 2A - Probably carcinogenic to humans 2B - Possibly carcinogenic to humans 3 - Not classifiable as a carcinogen 4 - Probably not a carcinogen OSHA Occupational Safety and Health Administration SARA Superfund Amendments and Reauthorization Act of U.S. EPA The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations.

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