SAUDI SPECIALIZED PRODUCTS COMPANY

EVA PLANT - HAIL

MATERIAL SAFETY DATA SHEET

ETHYLENE - VINYL ACETATE COPOLYMER

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Saudi Specialized Products Company (SSPC) – WAHAJ (An Affiliate of SIPCHEM)

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PRODUCT: Ethylene - Vinyl Acetate Copolymer Film

SYNONYM: EVA Film

SECTION 2: COMPOSITION OF INGREDIENTS

MATERIAL: Ethylene - Vinyl Acetate Copolymer

CAS NUMBER: 24937-78-8

SECTION 3: HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EVA films do not present any significant hazard to health and safety when used for their intended purposes in accordance with practices in hygiene and good housekeeping.

EVA films are combustible if exposed to flames.

EVA film can accumulate static electrical charges. The rapid leaking of such charges to earth in the form of sparks is potentially dangerous in areas where flame or explosion hazards exist.

INHILATION: EVA films can form vapors or fumes when heated to more than 235°C which may cause irritation of respiratory tract and cause coughing and sensation of shortness of breath.

INGESTION: Very low toxicity, biologically inactive and does not normally cause a hazard when ingested. May cause choking hazard or intestinal obstruction if swallowed.

SKIN: There is no hazard from EVA film in normal industrial use. Molten EVA film contacting the skin may cause severe thermal burns.

EYE: EVA film may give rise to some irritation on contact with the eyes but should not injure eye tissue.

SECTION 4: FIRST AIDE MEASURES

INHALATION: Due to the very low level of fumes from EVA films there is a negligible hazard at ambient temperatures. At elevated temperatures usually where the film is being subjected to heat as a means of cutting, sealing or shrinking, vapors may be released that are irritating to the eyes and respiratory tract. In such an event, victims should be removed from the exposure, first aid administered and medical attention sought. Adequate general and local ventilation is essential to minimize the concentration of any fumes in the vicinity of processing machinery.

INGESTION: No specific intervention is indicated as film is not likely to be hazardous by ingestion. Consult a physician when necessary if large amount has been swallowed.

SKIN CONTACT: There is no hazard from EVA film in normal industrial use, however consistent with good hygienic practice for any material, skin contact should be minimized. Molten polyethylene on the skin can cause burns, the affected area should be washed with large amounts of cold water to dissipate the heat but should not be pulled off and experienced medical attention should be sought.

EYE CONTACT: Flushing with water is the immediate treatment for irritation which if persistent should be referred to a doctor. If contacted by molten polymer, immediately flush eyes with plenty of cool water for at least 15 minutes. Do not permit victim to rub eyes. Get medical attention immediately.

NOTE TO PHYSICIANS:

In case of most burns, allow solidified material to slough off on its own. Attempted removal may lead to more damage of the skin and underlying tissues. If removal is indicated (e.g., solidified material is located on a critical part of the hand or face), removal with mineral oil is recommended. Due to the extremely high temperature of the molten polymer at the time of contact, bacterial infection under the solidified material is unlikely to be present.

SECTION 5: FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS:

Hazardous gases/vapors by-products in fire are carbon monoxide and hydrocarbon oxidation products including organic acids, aldehydes and alcohols.

EXTINGUISHING MEDIA:

The type of fire extinguisher to be used on burning EVA film depends very much on its environment, for instance do not use water sprays near electrical installations. That said water carbon dioxide dry chemical and synthetic foam fire extinguishers can be used safely on burning EVA film. Avoid using direct streams of water on molten, burning material as it may scatter and spread the fire.

FIRE FIGHTING INSTRUCTIONS / PROCEDURE:

Stand up-wind, then extinguish with appropriate media, covering the entire fire area thoroughly.

If possible, remove remaining material or goods to a safe location.

Fire fighters should wear self-contained breathing apparatus in the positive pressure mode with a full face shield and helmet when there is a possibility of exposure to smoke, fumes or hazardous decomposition products.

SPECIAL FIRE PRECAUTIONS:

Melts in proximity to fires resulting in slippery floors and stairs. Airborne dusts of this product, in an enclosed space, and in the presence of an ignition source, may constitute an explosion hazard. If possible, water should be applied as a spray from a fogging nozzle since this polymer is a surface burning material.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PROTECTIVE MEASURES:

The preferred methods of cleaning are sweeping, picking up or using industrial vacuum cleaner. The discarded material should be disposed of according to local disposal regulations.

IN CASE OF SPILL OR OTHER RELEASE:

EVA film presents a potential slip or trip hazard and should be cleaned up immediately.

If heated / molten material is spilled, allow it to cool before proceeding with disposal methods. Use caution, as material may still be hot after solidification.

Avoid generating dust. Reduce airborne dust and prevent scattering by moistening with water. Keep away from heat and flame.

SECTION 7: HANDLING AND STORAGE MEASURES

HANDLING: EVA film does not present an unusual handling problem, however it is recommended that when handling reels, the appropriate lifting equipment is used.

Always wear recommended personal protective equipment. Under conditions of storage, vapors may collect in the headspace of the containers causing a sometimes pungent odor during unpacking of these products. Avoid breathing vapors when opening containers. Follow standard personal hygiene and housekeeping practices for an industrial environment.

Wash hands thoroughly after handling. Avoid contact with eyes, skin and clothing.

STORAGE: EVA film should be stored in dry conditions below 30°C away from continuous direct sunlight in a well ventilated area. It does not normally deteriorate with age; however it is advisable to rotate stock.

Reels of film whether loose or palletized should not be climbed upon as the may slip and cause injury to personnel.

Keep away from flames and sources of ignition.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

ENGINEERING CONTROLS

VENTILATION: Good general ventilation of workshops is essential to minimize the concentration of fumes. Local exhaust ventilation is strongly recommended to reduce fumes where the film is being sealed.

PERSONAL PROTECTIVE EQUIPMENT

EYE: Safety glasses are recommended as good industrial practice. Face shields or safety glasses / goggles must be worn when handling molten EVA.

SKIN: EVA film does not normally cause skin irritation. Any such problems can usually be eliminated by the use of gloves. Gloves or other suitable protective clothing must be worn if handling molten EVA film.

RESPIRATORY: Where engineering controls are not feasible or sufficient, use approved respirators. The use of blades or hot wires during the processing of EVA film can lead to dust and fumes. Local exhaust ventilation is recommended to ensure adequate removal of the dust and fumes. It is recommended that blades and wires are inspected regularly and changed where necessary to reduce the level of dust and fumes.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Solid flexible film	BOILING POINT:	Not Applicable
COLOR:	Clear / Colorless	VAPOR PRESSURE:	Not Applicable
ODOR:	Mild, odorless	VAPOR DENSITY:	Not Applicable
PH LEVEL:	Not Applicable	EVAPORATION RATE:	Not Applicable

SOLUBILITY IN WATER: Insoluble

SOLUBILITY IN SOLVENTS: Insoluble in organic solvents

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:

EVA films are stable under normal handling and storage conditions. If stored continuously in direct sunlight photo degradation occurs and the storage time under these conditions reduces to less than 1 month.

THERMAL STABILITY:

EVA films are stable at temperatures below 30°C. Film shrinkage may occur if stored for prolonged times at elevated temperatures.

INCOMPATIBILITY:

Might react with strong oxidants. Reacts violently with fluorine/ oxygen mixtures with 50 to 100% fluorine. Reacts with acids, halogenated hydrocarbons, aldehydes, ketones and strong oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide, carbon dioxide and a wide variety of toxic fumes.

SECTION 11: TOXICOLOGY INFORMATION

INGESTION: The toxicity from ingestion of EVA is minimal; however some breathing difficulties or choking may occur if swallowed.

EYE CONTACT: Particulates of EVA film may cause mechanical irritation to the eyes.

SKIN CONTACT: EVA films are not absorbed by the skin and are essentially non-irritating. If irritation occurs use barrier cream or gloves. At elevated temperatures thermal burns to the skin may occur.

INHALATION: EVA films create no vapors below 30°C. At elevated temperatures some irritating vapors may be given off. The use of local exhaust ventilation is strongly recommended.

ACUTE / CHRONIC TOXICOLOGY: None

SECTION 12: ECOLOGICAL INFORMATION

AQUATIC TOXICITY:

EVA film is insoluble in water and does not present itself as an aquatic hazard. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

ENVIRONMENTAL FATE:

EVA film is generally inert and insoluble and is not expected to have any adverse effect on the environment. The material is non-biodegradable and can remain unaffected for years in a landfill site. This material may deteriorate by a number of mechanisms including photo and thermo-oxidative degradation.

SECTION 13: DISPOSAL CONSIDERATION

RECYCLING:

The generation of waste should be avoided or minimized wherever possible. EVA films can be reprocessed by recycling companies. Dispose surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

INCENERATION:

Films have a high fuel value, and burn clean, making incineration with energy recovery a preferred mode of disposal. EVA films can be incinerated to release their latent heat energy, subject to current legislation.

The product may also be disposed of at an approved landfill site although this is not recommended.

SECTION 14: TRANSPORTATION INFORMATION

SHIPPING INFORMATION:

EVA film is not classified according to any recommendations on the transport of dangerous goods.

SECTION 15: OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate and reliable, and is offered in good faith, and not as a product specification. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, neither the above named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained in this document.

Final determination of suitability of any material is the sole responsibility of the user. Each user should review these recommendations in specific context of the intended use and determine whether they are appropriate. In the event that you disagree with these recommendations, or learn of data that would contradict any of the information, please contact Saudi Specialized Products Company (SSPC) so that we may investigate and possibly update our MSDS.

All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The data written in this MSDS are not guaranteed values, but representative values.

This material safety data sheet (MSDS) was complied with much care based on SSPC expertise, but it may be revised due to new expertise, tests and others.

When you use this material, SSPC ask you to comply with the applicable laws and read this MSDS for your information.

It is also important for handling the material in a way fit for your company to keep safety.