HEYO ENTERPRISES CO., LTD.	High Molecular Weight Polyester Resin CAS NO. 29294-36-8 PES-1048
	2014/06/30

Material Safety Data Sheet

SECTION 1、Chemical Product and Company Identification

Product name：High Molecular Weight Polyester Resin

CAS NO. 29294-36-8

Other name: PES-1048

Recommended use of the chemical and restrictions on use:

multi-layer color pattern steel coil. PVC laminated and pre-painted production line, can coating

Names, addresses, and phone numbers of the manufacturer or supplier:

Heyo enterprises company

Emergency contact phone numbers/fax numbers: 07-7510306

SECTION 2、Hazard Identification

Classification of the substance or mixture：Non Hazardous Material

Label elements：

Symbol:

Signal word: -

Hazard substance: -

Hazard statement: -

Precautionary statements: -

Other hazards：-

SECTION 3 、Composition/Information on Ingredients

Mixtures：

Chemical property：High Molecular Weight Polyester Resin

Substance Identity：Polymer

CAS No.：29294-36-8

Approx. Weight (%)：100

Remark: High-Flash Aromatic Naphtha-150 contain 4% Trimethylbenzene (CAS No. 25551-13-7) and 1~5% Naphthalene(CAS NO.91-20-3)。

SECTION 4、First Aid Measures

The first-aid measures for different exposure routes:

Inhalation: If overcome by exposure , remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Skin contact: Remove contaminated clothing as needed.wash skin thoroughly with mild soap/water.Flush with lukewarm water for 15 minutes.If sticky,use waterless cleaner first.

Eyes contact: In case of eye contact, immediately rinse with clean water for 20-30minutes. Retract eyelids often. Obtain emergency medical attention if pain, blinking.tears or redness persist.

Ingestion: If large quantity swallowed, give lukewarm water (pint) if victim completely conscious / alert. Do not induce vomiting / risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

The most important symptoms and hazardous effects：

Skin sensitization hazard.

The protection of first-aiders：Wear C class protective equipment and first aid in safety area.

Notes to physicians：Non Hazardous Material

SECTION 5、Fire Fighting Measures

Suitable fire extinguishing media: Water, foam, carbon dioxide or dry chemical.

Specific hazards may be encountered during fire-fighting:

High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerizing reaction generating heat / pressure. Closed containers may rupture or explode during runaway polymerization.

Specific fire-fighting methods:

Full protective equipment, including self contained breathing apparatus is needed to protect fire fighters from exposure.

Special equipment / instructions for the protection of firefighters:

Chemical splash goggles and/or face shield, respiratory protection equipment, protective gloves, apron, boot.

SECTION 6、Accidental Release Measures

Personal precautions: Do not breathe vapors. Eliminate all sources of ignition in Vicinity of spill or released Vapor to avoid fire or explosion.Check area with explosion meter before reentering area.

Environmental precautions: Insoluble in water. Avoid drainage to sewers or natural waters. Dike area of spill to prevent spreading and pump liquid to salvage tank. This product is not biodegradable and will sink in water.

Clean-up procedures: Absorb on inert material such as sand, earth, vermiculite.Transfer liquids and solid diking material to suitable containers for recovery or disposal.Dispose according to regulatory requirements.

SECTION 7、Safe Handling and Storage Measures

Handling procedures：Wear recommended personal protection equipment. Never use pressure to empty drums.

Storage procedures：Wear recommended personal protection equipment. Never use pressure to empty drums.

SECTION 8、Exposure Controls Measures

Engineering controls：1. Using no spark, grounding ventilation system, and separate from general ventilation system.

2. Exhaust waste gas to outdoor, and take applicable measure to protect environment.

3. Using local exhaust ventilation and closed processing system when mass production.

4. Complement exhaust air by ventilation system with supply plenty fresh air.

Control parameters

Substance name	8 hours time weighted average exposure limits	short-term exposure limits (STEL)	maximum exposure limits (CEILING)	biological standards (BEIs)

(TWA)

Personal protective equipment：

Respiratory protection：If this material is handled at elevated temperature or under mist forming conditions, NIOSH/MSHA approved respiratory protection equipment should be used.

Hand protection：Resistant gloves. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility, etc) is noticed.

Eye protection：Chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor. Contact lenses should not be worn.

Skin and body protection：Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. This equipment should be cleaned thoroughly after each use.

Hygiene measures：1. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

2. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities.

3. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.

SECTION 9、Physical and Chemical Properties

Appearance (physical state, colour, etc)：Clear solid

Odor：Slight

Odor threshold：-

Melting point/freezing point: -

pH value：-

Boiling point/boiling range: -

Flammability (solid, gas)：-

Flash point：> 420 ℉ > 215 ℃

Decomposition temperature：> 300 ℃

Test method：○ Open cup
● Closed up

Autoignition temperature：> 300 ℃

Explosion limits：

Vapor pressure：-

Vapor density：Non Volatile

Density：1.26

Solubility：Immiscible with water.

Partition coefficient of n-octanol/water：

Evaporation rate：

SECTION 10、Chemical Stability and Reactivity Information

Chemical Stability: Stable on normal condition.

Possible hazardous reactions occurring under specific conditions:

Heat and pressure generation when polymerization and the result in closed container broken and cracked.

Conditions to be avoided: High temperatures, localized heat sources (i.e., drum or band heaters), oxidizing conditions, freezing conditions, direct sunligt, ultraviolet radiation, inert gas blanketing.

Materials to avoid: Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers

Hazardous decomposition products: Acrid smoke-fumes/carbon monoxide/carbon dioxide and perhaps other toxic vapors may be relessed during a fire involving this product.

SECTION 11、Toxicological Information

Routes of exposure: -

Symptoms: -

Acute toxicity: -

Chronic toxicity or long term toxicity: -

SECTION 12、Ecological Information

Ecological toxicity: -

Persistence and degradability: -

Bio-accumulative potential: -

Mobility in soil: -

Other adverse effects: -

SECTION 13、Waste Disposal Measures

Methods of waste disposal：1. Residues and spilled material may be hazardous waste due to potential for internal heat generator. Disposal must be in accordance with applicable federal, state, or local regulations.

2. The container for this product can present explosion or fire hazards, even when emptied. To avoid risk of injury, do not cut, puncture, or weld on or near this container. Since the emptied containers retain product residue, follow label warnings even after container is emptied.

SECTION 14、Transport Information

United nations number (UN No)：-

UN Proper shipping name：-

Transport hazard class(es)：-

Packing group number：-

Marine pollutant (YES／NO）：○YES ●NO

Specific transport measures and precautionary conditions：

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SECTION 15、Regulatory Information

Applicable regulations: TSCA status: All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Note : qualifiers and codes used in this MSDS

N/A = Not Applicable; N/DA = No Data Available; AP = Approximately

SECTION 16、Other Information

Reference documents

MSDS prepared by

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Address: NO. 60, RUEICHENG ST., KAOHSIUNG 806, TAIWAN

Telephone: 07-7510306

Title: Manager Name (signature): Alex Lan

Date: 2014/06/30

Remark: " – " = not available ; " / " = not applicable