

PSP-0

**RJF INTERNATIONAL CORPORATION
MATERIAL SAFETY DATA SHEET
STANDARD KOROKLEAR® VINYL STRIP, SHEET & PELLET**

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

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| RJF INTERNATIONAL CORPORATION 3875 Embassy Parkway Fairlawn, OH 44333 Tel: (740) 374-0817 | EMERGENCY TELEPHONE NO.: CHEMPREC: (800) 424-9300 |
| TRADE NAME: STANDARD KOROCLEAR® VINYL STRIP, SHEET, & PELLET | MSDS NUMBER: AN# 5035 Revision 4. See Section 16 for the formulations covered by this document |
| CHEMICAL NAME: Polyvinylchloride | SYNONYMS: Flexible Polyvinylchloride |
| PREPARED BY: Clayton Group Services, Inc. | DATE OF ISSUE: 09/01/91 DATE OF LATEST REVISION: 05/15/03 |

2. INGREDIENTS

| <u>Component</u> | <u>CAS #</u> | <u>Percent</u> | <u>ACGIH (TLV)</u> | <u>OSHA (PEL)</u> | <u>Units</u> |
|-------------------------|--------------------------|----------------|------------------------|-----------------------|--|
| Polyvinylchloride Resin | 9002-86-2 | 45-70 | Not Est. | Not Est. | Not Est. |
| Phthalate Plasticizers | 68515-48-0 33703-08-1 | 20-45 | Not Est. | Not Est. | Not Est. |
| Epoxidized Soybean Oil | 8013-07-8 | 2-5 | 10 (T) | 15 (T) 5 (R) | mg/M ³ mg/M ³ |
| Complex Stabilizers | Not Est. | 1-3 | Not Est. | Not Est. | Not Est. |

The product contains small amounts, <1%, of Stearic Acid, Processing Aids, Colorants, Biocides, and Proprietary Ultraviolet Absorbers.

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

In its manufactured and shipped state the product is considered non-hazardous. Pick up released materials and place in appropriate containers for reuse or disposal. Product involved in fire situations may release toxic combustion products including hydrochloric acid and organic and inorganic materials of unknown composition and toxicity. Wear appropriate personal protective equipment and keep unnecessary individuals up wind of the area. Cool product in or near fires with a water spray or fog. Any wastes generated during cleanup operations should be evaluated with respect to hazardous and solid waste regulations and disposed of in a properly permitted facility in accordance with all local, state, and federal regulations.

3. HAZARDS IDENTIFICATION (Continued)

POTENTIAL HEALTH EFFECTS:

In its manufactured and shipped state the product is considered non-hazardous. Dusts and/or particulate matter may be generated by mechanical abrasion while fumes and vapors may be generated if the product is exposed to excessive temperatures.

Eye: Particulate matter and fumes and vapors may cause irritation.

Skin Contact: Particulate matter and fumes and vapors may cause irritation.

Skin Absorption: Not expected to be a route of entry into the body.

Ingestion: Not expected to be a major route of entry. Ingestion of large quantities of particulate matter may cause gastrointestinal distress.

Inhalation: Particulate matter and fumes and vapors may cause irritation of the mouth, throat, mucous membranes, and respiratory tract.

Chronic & Carcinogenicity: Prolonged contact with dusts and particulate matter that may be generated by mechanical abrasion may cause dermatitis. Prolonged exposure to high concentrations of product dusts may cause a benign pneumoconiosis with resultant decrease in lung function.

The components of the product have not been identified as carcinogens or potential carcinogens. See Section 11. Prolonged exposures to high concentrations of particulate matter and fumes and vapors may possibly aggravate pre-existing skin and lung disorders.

4. FIRST AID MEASURES

Inhalation: Remove exposed person to fresh air. If breathing is difficult, oxygen may be administered. If breathing has stopped, artificial respiration should be started immediately. Seek medical attention.

Eyes: Flush with tepid water for at least 20 minutes holding the eyelids wide open. Seek medical attention if irritation develops.

Skin: Wash thoroughly with mild soap and water. Seek medical attention if irritation develops. Remove any contaminated clothing and launder thoroughly before reuse.

Ingestion: Not expected to be an important route of entry into the body. If large amounts of particulate matter are ingested it may cause gastrointestinal distress. Seek medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT: NA LEL: NA UEL: NA AUTO IGN. TEMP.: NA

Use water, dry chemical, or carbon dioxide to extinguish fires involving the product. Product in or near fires should be cooled with a water spray or fog if compatible with the other materials involved in the fire. A self contained breathing apparatus (SCBA) operating in the positive pressure mode and full fire fighting protective clothing should be worn for combating fires. See Section 10 for decomposition products that might be expected in fire situations.

6. ACCIDENTAL RELEASE MEASURES

Pick up product and return to original packing if reusable. If not reusable, place in DOT approved containers for disposal. Any wastes generated during cleanup operations should be evaluated with respect to hazardous and solid waste regulations and disposed of in a properly permitted facility in accordance with all local, state, and federal regulations.

7. HANDLING AND STORAGE

Store product at ambient temperatures out of contact with the elements. Keep from contact with strong acids and oxidizers. Dusts and/or particulate matter that may be generated during handling or processing should be cleaned up by vacuuming or wet mopping.

8. EXPOSURE CONTROL - PERSONAL PROTECTION

ENGINEERING CONTROLS: Not generally required. If significant amounts of dusts are generated during processing or handling, the need for local exhaust ventilation (LEV) should be evaluated by a professional industrial hygienist. LEV should also be provided if the fumes and/or vapors generated by high temperature use or processing have not been thoroughly characterized. Design details for local exhaust ventilation systems may be found in the latest edition of "Industrial Ventilation: A Manual of Recommended Practice" published by the ACGIH Committee on Industrial Ventilation, P.O. Box 16153, Lansing, MI 48910. Local exhaust ventilation systems should be designed by a professional engineer.

RESPIRATORY: Respiratory protection is not normally required. If appreciable dusts, fumes, or vapors are generated during handling or processing, the operation should be evaluated by a professional industrial hygienist to determine the need for respiratory protection. If respiratory protection is deemed necessary, use, as a minimum, a NIOSH approved 1/2 facepiece respirator equipped with cartridges approved for organic vapors, acid gases, and particulate matter.

EYE PROTECTION: Where eye contact is possible with particulate matter, safety glasses with side shields are recommended. Where significant amounts of fumes or vapors may be generated, chemical safety goggles are recommended.

PROTECTIVE GLOVES: Polymeric gloves are recommended to prevent irritation.

GENERAL: A polymeric coated apron or other body covering is recommended where there is a possibility of regular work clothing becoming contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & PHYSICAL STATE: Clear or Blue Flexible Strips or Sheets and Pellets

MELT POINT: ND

VAPOR DENSITY (AIR=1): NA

OCTANOL/WATER PARTITION COEFFICIENT: NA

VAPOR PRESSURE: NA

EVAPORATION RATE BuOAC = 1: NA

ODOR: None

SPECIFIC GRAVITY/BULK DENSITY: 1.1 - 1.3

% VOLATILE BY VOLUME: Not Volatile

BOILING POINT: NA

% SOLUBILITY (H₂O): Insoluble

pH: NA

OTHER: NA

10. STABILITY AND REACTIVITY

STABILITY & POLYMERIZATION: Product is stable. Hazardous polymerization will not occur.

INCOMPATIBILITY (CONDITIONS TO AVOID): Avoid contact with strong acids and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: May produce dense smoke, oxides of carbon, hydrochloric acid, low molecular weight organic and inorganic species whose composition and toxicity has not been characterized, and metal oxide fumes.

10. STABILITY AND REACTIVITY (Continued)

SPECIAL SENSITIVITY: Polyvinylchloride (PVC) dusts may form weakly explosive mixtures in air. It is, however, highly unlikely that such mixtures can be formed under normal and expected conditions of use and if normal precautions are taken.

11. TOXICOLOGICAL INFORMATION

PVC materials have a very low acute toxicity. PVC materials have an acute LD₅₀ in rats of greater than 10 grams per kilogram of body weight. The product, as with all PVC materials, contains a small amount, <5 ppm, of residual vinyl chloride monomer which has been identified as a human carcinogen. OSHA has established the following exposure limits for vinyl chloride: a 1 ppm 8 hour TWA PEL, a 5 ppm STEL (15 minutes) and a 0.5 ppm AL. Industrial hygiene studies have shown that under normal and expected conditions of use of PVC materials, exposures are well below applicable limits.

12. ECOLOGICAL INFORMATION

Detailed studies have not been conducted concerning the environmental fate of the product. It is, however, not expected to present a hazard to aquatic and terrestrial flora and fauna.

13. DISPOSAL CONSIDERATIONS

The product is not considered hazardous under current EPA hazardous waste regulations. Disposal by recycling is the preferred method of disposal. Alternatively, the product may be disposed of in an approved landfill. All wastes should be evaluated in conjunction with applicable solid and hazardous waste regulations, Toxicity Characteristic Leaching Procedures (TCLP), and disposed of as appropriate.

Empty containers will contain product residues. Observe proper safety and handling precautions. Do not allow empty containers to be used for any purpose except to store and ship original product.

It is the user's responsibility to dispose of all wastes in accordance with all local, state, and federal regulations at properly permitted or authorized facilities.

14. TRANSPORTATION INFORMATION

DOT Classification: Not currently regulated under Department of Transportation regulations.

15. REGULATORY INFORMATION

OSHA Hazard Communication Classification for dusts and fumes and vapors: Irritant, Skin Hazard, Lung Hazard.

SARA Title III Classification for dusts and fumes and vapors: Acute Health Hazard; Chronic Health Hazard.

The residual vinyl chloride monomer of less than 5 ppm, CAS # 75-01-4, in the product has been listed as a Substance Known to Cause Cancer by the State of California and as an Extraordinarily Hazardous Substance by the State of Massachusetts.

Exposure to vinyl chloride is regulated by OSHA under 29 CFR 1910.1017. Users of the product are urged to obtain and read these standards to determine how their operations may be affected. See Section 11.

WHMIS Classification: Non-hazardous

16. OTHER INFORMATION

The following RJF International typical formulations are covered by this document. 1M5437, 11682, 11683, 11737, 11780, 11781, 11794, 11812, 11817, 11823, 11831, and 11858. Note that all products do not contain all of the ingredients listed in Section 2.

Not Est. = Not Established; NA = Not Applicable; ND = Not Determined

HMIS Classifications: Health = 0; Fire = 1; Reactivity = 0

All components of the formulations are included in the Toxic Substances Control Act (TSCA) inventory.

Vinyl or polyvinyl chloride resin (PVC) is the versatile and widely used polymer that can be formulated to meet the requirements for products in many industries. Vinyl is the most energy-efficient plastic because it's composition is less than half petroleum based. Vinyl uses less energy and generates fewer emissions when made and it requires fewer natural resources than many other natural and synthetic materials.

Vinyl products have been used for decades without any evidence of harm to human health. In fact, vinyl is used in medical products such as blood bags and medical tubing and in food-contact applications as meat wraps, bottles and can enamel. Vinyl's toughness and durability make it the most specified plastic for building and construction applications like siding, window frames, single-ply roofing membranes, fencing, decking, wallcoverings and flooring.

Notice From RJF International. The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The opinions expressed herein are those of qualified experts within RJF International. We believe that the information contained herein is current as of the date of issue of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of RJF International, it is the users obligation to determine conditions of safe use of the product.

RJF International requests the users of this product study this Material Safety Data Sheet and become aware of product hazards and safety information. To promote safe use of this product, users should notify their employees, agents, and contractors of the information on this Material Safety Data Sheet and any product hazards and safety information.