

PVC Films and Blends

Manufacturer MSDS Number: 5142

**SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**MSDS Name:** PVC Films and Blends

**Distributor Name:** Uline Inc.

**Distributor Address:**

2200 S. Lakeside Drive  
Waukegan, IL 60085

**Distributor Telephone:** 1-800-295-5510

For information in North America, call: 1-800-295-5510

**Manufacturer MSDS Revision Date:** March 28, 2002

Revision: 1.0000

**General Use:**

Shrink Film

**Other Designations:**

Reynolon industrial packaging film blends, including series: 1000, 1100, 2000, 2100, 2200, 2300, 2400, 2500, 3000, 3100, 5000, 5100, 5200, 5300, 5400, 5500, 5900, 7000, 7100, 7200, 7300, 7400, 7500, 8000, 8100, 9000, 9100, 9800, and all X number films

Product Codes: S-562, S-563, S-573, S-628, S-1390, S-3817, S-2072, S-2073, S-1391, S-1392, S-1393, S-2497, S-1394, S-3558,

S-3559, S-2690, S-2691, S-2692, S-2693, S-3560, S-3561, S-570, S-676, S-669, S-5025, S-572, S-1395, S-2498, S-3818

**SECTION 2 · COMPOSITION, INFORMATION ON INGREDIENTS**

<b>Chemical Name</b>	<b>CAS#</b>	<b>Percent</b>	
Polyvinyl chloride resin	9002-86-2	70-81%	
Plasticizers	Proprietary	0-30%	
Impact modifiers	Proprietary	0-11%	
Surfactants	Proprietary	0-4%	
Lubricants	Proprietary	0-3%	
Processing Aids	Proprietary	0-2%	

<b>Chemical Name</b>	<b>CAS#</b>	<b>Percent</b>	
Stabilizers	Proprietary	0-2%	

**Composition/Information:**

Component Information: Additional compounds which can be formed during combustion/decomposition are listed in Section 8.

### SECTION 3 : HAZARDS IDENTIFICATION

**Emergency Overview:**

Dust clouds generated during processing may be explosive. Dust clouds generated during processing may be explosive. This material burns vigorously and releases a dense, black, toxic smoke.

Dust and fume from processing can cause irritation of eyes, skin and upper respiratory tract; Combustion can generate toxic and irritating hydrogen chloride gas. Contact with material can cause thermal burns.

**Physical State:**

Clear, solid flexible plastic film, or solid pellets to powder.

**Color:** White

**Odor:** Plastic odor.

**Applies to All Ingredients:**

**Potential Health Effects:**

Health Effects Of Additional Compounds Which May Be Formed During Processing:  
 Combustion product may include: Hydrogen chloride gas Can cause severe irritation and corrosive burns of eyes, skin and upper respiratory tract. Acute overexposure: Can cause fluid in the lungs (Pulmonary edema).

If dusts or fumes are generated by processing:

**Eye Contact:**

Can cause irritation

**Skin Contact:**

Can cause irritation. Contact with material can cause molten thermal burns.

**Inhalation:**

Can cause irritation of respiratory tract.

**Aggravation of Pre-Existing Conditions:**

Asthma, chronic lung disease, and skin rashes.

### SECTION 4 : FIRST AID MEASURES

**Eye Contact:**

Flush eyes with plenty of water or saline for at least 15 minutes. Consult a physician.

**Skin Contact:**

Wash skin with soap and water for at least 15 minutes. Consult a physician if irritation persists. If molten material gets on skin, cool rapidly with cold water. Do not attempt to peel material from skin. Get medical treatment for thermal burn.

**Inhalation:**

Remove to fresh air. If unconscious or severely injured, check for clear airway, breathing and presence of pulse. Perform CPR if there is no pulse or respiration. Consult a physician.

## SECTION 5 : FIRE FIGHTING MEASURES

### Fire:

Flammable properties:  
Dust clouds generated during processing may be explosive. This material burns vigorously and releases a dense black, toxic smoke.

Fire/Explosion:  
Dust or fines dispersed in the air can be explosive.

### Extinguishing Media:

Use dry chemical, water spray (fog), foam or carbon dioxide extinguishing agents. Manual fire fighting may be difficult due to the presence of thick smoke.

### Fire Fighting Instructions:

Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### Spill Cleanup Measures:

Use dry cleaning procedures. Recover using mechanical means.

## SECTION 7 : HANDLING and STORAGE

### Handling:

Good housekeeping practices should be employed. Avoid generating dust.

## SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION

### Engineering Controls:

Use with adequate ventilation. If decomposition occurs: Use with adequate ventilation to meet the specified listed in section 8, Exposure Guidelines.

### Skin Protection Description:

Wear appropriate gloves to avoid and skin injury.

### Eye/Face Protection:

Wear safety glasses/goggles to avoid eye contact.

### Respiratory Protection:

If dust generation or decomposition occurs: Use NIOSH – approved respiratory as specified by an Industrial Hygienist or other qualified professional if concentrations exceed the limits listed in Section 8. Exposure Guidelines. Suggested respiratory protection: N95, fit testing must be completed prior to respirator use. Use acid/gas cartridge if hydrogen chloride gas is generated.

### Exposure Limits:

General Product Information:  
The ACGIH and OSHA have not developed exposure limits for this product.

Additional Compounds Which May be Formed During Processing

Chemical Name: Hydrogen Chloride

CAS No: 7647-01-0

ACGIH: 5 ppm Ceiling

OSHA: 5 ppm Ceiling; 7 mg/m<sup>3</sup> Ceiling.

### Ingredient Guidelines

**Ingredient:** Lubricants

Guideline Type: ACGIH TLV-TWA  
Guideline Information: 2 mg/m3 (respirable fraction)  
Guideline Type: OSHA PEL-TWA  
Guideline Information: 20 mppcf

**Ingredient:** Processing Aids

Guideline Type: OSHA PEL-TWA  
Guideline Information: 15 mg/m3 (total dust); 5 mg/m3 (respirable fraction)

**Ingredient:** Stabilizers

Guideline Type: ACGIH TLV-TWA  
Guideline Information: 2 mg/m3 (inhalable fraction, vapor and aerosol)

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

**Physical State/Appearance:**

Clear film or white pellets to powder

**Odor:**

Plastic odor

**Physical State:**

Solid film, pellets or powder

**pH:**

Not Applicable

**Vapor Pressure:**

Not Applicable

**Vapor Density:**

Not Applicable

**Boiling Point:**

Not Applicable

**Melting Point:**

Not Determined

**Solubility:**

In Water: Insoluble

**Specific Gravity:**

Not Determined

**Density:**

Not Determined

**Odor Threshold:**

Not Determined

**Coefficient of Water/Oil Distribution:**

Not Applicable

## SECTION 10 : STABILITY AND REACTIVITY

### Chemical Stability:

Stable under normal conditions of use. Storage, and transportation.

### Conditions to Avoid:

Strong oxidizers, amines and acetal or acetal copolymers

### Hazardous Polymerization:

Will not occur.

### Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide, hydrogen chloride, nitrogen oxides, ammonia and partially oxidized hydrocarbons

## SECTION 11 : TOXICOLOGICAL INFORMATION

### Applies to all ingredients:

#### Acute Health Effects:

General Product Information:  
No information available for product.

#### Carcinogenicity:

General Product Information:  
No information available for product.

### Polyvinyl chloride resin:

#### Carcinogenicity:

IARC Supplement 7, 1987; Monograph 19, 1979

### Plasticizers:

#### Ingestion Effects:

Oral: LD50 Rat: 40 gm/kg

### Lubricants:

#### Carcinogenicity:

ACGIH: A4 = Not Classifiable as Human Carcinogen (Containing no asbestos fibers)  
IARC: Supplement 7, 1987  
Monograph: 42, 1987

### Processing Aids:

#### Ingestion Effects:

Oral LD50 Rat: > 10 mg/kg  
Oral LD50 Mouse: > 10 gm/kg

### Stabilizers:

#### Ingestion Effects:

Oral LD50 Rat: 890 mg/kg  
Oral LD50 Mouse: 650 mg/kg

#### Carcinogenicity:

ACGIH: A4 – Not Classifiable as a Human Carcinogen  
IARC: Supplement 7, 1987  
Monograph: 40, 1986

## SECTION 12 : ECOLOGICAL INFORMATION

### Ecotoxicity:

General Product Information:  
No information available for product.

Component Analysis:  
Stabilizers (Proprietary)  
LC50 (48 hr) Killifish: 2.5 mg/L  
EC50 (5,15,30 min) Photobacterium phosphoreum: 7.82–8.98 mg/L 15 deg C.

### Environmental Fate:

No information available for product.

### Effect of Material On Aquatic Life:

Component Analysis – Aquatic Toxicity:  
Stabilizers (Proprietary)  
LC50 (48 hr) Killifish: 2.5 mg/L  
EC50 (5,15,30 min) Photobacterium phosphoreum: 7.82–8.98 mg/L 15 deg C.

## SECTION 13 : DISPOSAL CONSIDERATIONS

### Waste Disposal:

Reuse or recycle material whenever possible. Material may be disposed of at a sanitary landfill.

### EPA Waste Number:

General Product Information: Not federally regulated in the U.S. if disposed of "as is" Otherwise, characterize in accordance with applicable regulations (40 CFR 261 or state equivalent in the U.S.)

Component Waste Numbers:  
RCRA waste codes other than described under Section A may apply depending on use of product. Refer to 40 CFR 261 or state equivalent in the U.S.

## SECTION 14 : TRANSPORT INFORMATION

### Transportation Information:

Special Transportation:  
PSN #1:  
Notes: (1)  
Proper Shipping Name: Not Regulated

Canadian TDG: PIN: Not regulated

Canadian Hazard Class: Not regulated

### Notes:

(1) When "Not regulated," enter the proper freight classification, "MSDS Number," and "Product Name" on the shipping paperwork.

**Applies to All Ingredients:**

**SARA:**

Component Analysis: None of the components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

**Section 312 Hazard Category:**

SARA 311/312 Physical and Health Hazard Categories:

Acute: No

Chronic: No

Fire: No

Reactive: No

Pressure: No

**US Federal:**

General Product Information: No information available for product.

**State:**

General Product Information:  
No information available for product.

**Regulatory Paragraph:**

General Product Information:  
No information available for product.

**Polyvinyl chloride resin:**

TSCA 8(b): Inventory Status (Yes/No): Yes

Canada DSL: Yes

European Community Chemical Inventory Status (Yes/No): No

Japan MITI:

Yes

Australia Chemical Inventory Status (Yes/No): Yes

**Plasticizers:**

TSCA 8(b): Inventory Status (Yes/No): Yes

Canada DSL: Yes

European Community Chemical Inventory Status (Yes/No): Yes

Japan MITI:

Yes

Australia Chemical Inventory Status (Yes/No): Yes

**Impact modifiers:**

TSCA 8(b): Inventory Status (Yes/No): Yes

Canada DSL: Yes

European Community Chemical Inventory Status (Yes/No): No

Japan MITI:

No

Australia Chemical Inventory Status (Yes/No): Yes

**Surfactants:**

TSCA 8(b): Inventory Status (Yes/No): Yes

Canada DSL: Yes

European Community Chemical Inventory Status (Yes/No): No

Japan MITI:

No

Australia Chemical Inventory Status (Yes/No): Yes

**Lubricants:**

TSCA 8(b): Inventory Status (Yes/No): Yes

State:

The following components appear on one or more of the following state hazardous substances lists:

Component: Lubricants

Cas #: Proprietary

CA: Yes

FL: Yes

MA: Yes

MN: Yes

NJ: Yes

PA: Yes

Canada DSL: Yes

European Community Chemical Inventory Status (Yes/No): Yes

Japan MITI:

No

Australia Chemical Inventory Status (Yes/No): Yes

**Processing Aids:**

TSCA 8(b): Inventory Status (Yes/No): Yes

State:

The following components appear on one or more of the following state hazardous substances lists:

Component: Processing Aids

Cas #: Proprietary

CA: No

FL: No

MA: Yes

MN: Yes

NJ: No

PA: Yes

Canada WHMIS:

WHMIS IDL:

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component: Processing Aids

Cas #: Proprietary

Minimum Concentration: 1%; English Item 1725; French Item 1504

Canada DSL: Yes

European Community Chemical Inventory Status (Yes/No): Yes

Japan MITI:

Yes

Australia Chemical Inventory Status (Yes/No): Yes

**Stabilizers:**

TSCA 8(b): Inventory Status (Yes/No): Yes

State:

The following components appear on one or more of the following state hazardous substances lists:

Component: Stabilizers

Cas #: Proprietary

CA: Yes



FL: Yes  
MA: Yes  
MN: Yes  
NJ: Yes  
PA: Yes

**Canada WHMIS:**

WHMIS IDL:

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component: Stabilizers  
Cas #: Proprietary

Minimum Concentration: 1%; English Item 238; French Item 1007

**Canada DSL:** Yes

**European Community Chemical Inventory Status (Yes/No):** Yes

**Japan MITI:**

Yes

**Australia Chemical Inventory Status (Yes/No):** Yes

## SECTION 16 : ADDITIONAL INFORMATION

**Label Hazard Warning:**

CAUTION:

Hazards:

Dust and fines dispersed in the air may be explosive. Material burns vigorously and can release dense, black, toxic smoke. Dust or fumes from processing can cause irritation of the eyes, skin and upper respiratory tract.

Can generate irritating and toxic hydrogen chloride gas if heated to decomposition. Hydrogen chloride can cause irritation of the eyes, skin and upper respiratory tract. Overexposure can result in fluid in the lungs.

Direct skin or eye contact with heated or molten material can cause thermal burns.

**Label Precautions:**

Use with adequate ventilation. Avoid generating dust. Wear appropriate eye and skin protection (Safety glasses/goggles, gloves) to prevent any injury. Wear appropriate respiratory protection (N95 for dust and acid gas cartridge if hydrogen chloride is generated) if concentrations exceed the permissible limits.

Fire Fighting:

Use dry chemical, water spray (fog) foam or carbon dioxide extinguishing agents. Manual fire fighting may be difficult due to the presence of thick smoke.

**Label First Aid:**

EYES: Flush with plenty of water or saline for at least 15 minutes. Consult a physician.

SKIN: Wash with soap and water for at least 15 minutes. Consult a physician if irritation persists. If molten material gets on skin, cool rapidly with cold water. Do not attempt to peel material from skin. Get medical treatment for thermal burns.

INHALATION: Remove to fresh air, if unconscious or severely injured, check for clear airway, breathing, and presence of pulse. Provide CPR if there is no pulse or respiration. Consult a physician.

See Alcoa Material Safety Data Sheet No. 1202 for more information about use and disposal.

Emergency Phone: (412) 553-4001

INGREDIENTS: Polyvinyl chloride resin

CAS NUMBERS: (9002-86-2)

INGREDIENTS: Plasticizers:

INGREDIENTS: Impact Modifiers

INGREDIENTS: Surfactants

INGREDIENTS: Lubricants

INGREDIENTS: Processing Aids

INGREDIENTS: Stabilizer

**MSDS Revision Date:**

Original: March 28, 2002  
Revision: 1.0000

MSDS Status: Replaces Reynolds Metals MSDS# 5142

**MSDS Author:**

Hazardous Materials Control Committee

**Disclaimer:**

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MSDS System Number: 161736

Other Information: \* Guide to Occupational Exposure Values–2001, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).

\* Documentation of the Threshold Limit Values and Biological Exposure Indices, Sixth Edition, 1991, Compiled by the American Conference of Governmental Industrial Hygienists, Inc. (ACGIH).

\* NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, June 1994.

\* Dangerous Properties of Industrial Materials, Sax, N. Irving, Van Nostrand Reinhold Co., Inc., 1984.

\* Patty's Industrial Hygiene and Toxicology: Volume II: Toxicology, 4th ed., 1994, Patty, F. A.: edited by Clayton, G. D. and Clayton, F. E.: New York: John Wiley Sons, Inc.

\*TOMES CPS(TM), MICROMEDEX, Inc., 2001

**Key–Legend:**

ACGIH: American Conference of Governmental Industrial Hygienists

AICS: Australian Inventory of Chemical Substances

CAS: Chemical Abstract Service

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

CFR: Code of Federal Regulations

CPR: Cardio–pulmonary Resuscitation

DOT: Department of Transportation

DSL: Domestic Substances List (Canada)

EINECS: European Inventory of Existing Commercial Chemical Substances

EPA: Environmental Protection Act

IARC: International Agency for Research on Cancer

LC50: Lethal concentration (50 percent kill)

LCLo: Lowest published lethal concentration

LD50: Lethal dose (50 percent kill)

LDLo: Lowest published lethal dose

LFL: Lower Flammable Limit

MITI: Ministry of International Trade Industry

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

OEL: Occupational Exposure Limit

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

PIN: Product Identification Number

PSN: Proper Shipping Name

RCRA: Resource Conservation and Recovery Act

SARA: Superfund Amendments and Reauthorization Act

STEL: Short Term Exposure Limit

TCLP: Toxic Chemicals Leachate Program

TDG: Transportation of Dangerous Goods

TLV: Threshold Limit Value

TSCA: Toxic Substance Control Act

TWA: Time Weighted Average

UFL: Upper Flammable Limit

WHMIS: Workplace Hazardous Materials Information System

atm: atmosphere

cm: centimeter

g, gm: gram

in: inch

kg: kilogram

lb: pound

m: meter

mg: milligram

ml, mL: milliliter

mm: millimeter  
mppcf: million particles per cubic foot  
n.o.s.: not otherwise specified  
ppb: parts per billion  
ppm: parts per million  
psia: pounds per square inch absolute  
u: micron  
ug: microgram

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