

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : Asahi Kasei PVDC Resin F310
Synonym(s) : Vinylidene chloride-based copolymer
General Use : Coating agent for packaging materials
Product Description: Barrier for oxygen gas and water vapor
MSDS Number : F310-USM

MANUFACTURER: Asahi Kasei Chemicals Corporation

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Section: PVDC Coating Marketing & Sales Dept.
Performance Coating Materials Division
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EMERGENCY TELEPHONE NUMBER :

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Asahi Kasei Chemicals Corporation
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2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME: Vinylidene chloride-based copolymer
COMPOSITION: Vinylidene chloride-based copolymer (100%)
CAS Registry No.: confidential affair

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Appearance & Odor ; White or light yellow powder, Faint characteristic smell
Generates Hydrogen chloride gas under thermal decomposition.

POTENTIAL HEALTH EFFECTS:

INHALATION: May cause headache.
EYE: May cause irritation.
SKIN: Prolonged adhesion to skin may cause irritation.
INGESTION: May cause vomiting

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4. FIRST AID MEASURES

- INHALATION:** Immediately remove the victim into the fresh air.
If any discomfort or distress occurs, get medical attention as soon as possible.
- EYE CONTACT:** Immediately flush with a plenty of running water for at least 15 minutes. If irritation occurs, get medical attention as soon as possible. Don't rub eyes to avoid irreversible injury.
- SKIN CONTACT:** Wash with water and soap. If irritation occurs, get medical attention as soon as possible.
- INGESTION:** If any discomfort or distress occurs, get medical attention as soon as possible.
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5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

- | | |
|-------------------------------|----------------------------|
| FLASH POINT: | Not Applicable |
| AUTOIGNITION TEMPERATURE: | Not Applicable |
| FLAMMABILITY: | Flame-resisting |
| SPONTANEOUS COMBUSTIBILITY: | None |
| POTENTIAL FOR DUST EXPLOSION: | None (our laboratory data) |

EXTINGUISHING MEDIA:

Water, loaded stream, foam, powder.

FIREFIGHTING INSTRUCTIONS:

- Generates Hydrogen chloride gas under thermal decomposition.
Stay upwind side against fire and wear positive-pressure self-contained breathing apparatus.
Remove from vicinity of fire, if possible.
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6. ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment as specified Section 8.

LAND SPILL: Vacuum or sweep up, and place in a disposal container.

WATER SPILL:

If the material is accidentally discharged into river, lake, ocean or sewer system, notify appropriate authorities immediately and take necessary action in accordance with any applicable regulations.

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7. HANDLING AND STORAGE

HANDLING:

Handle and use it in well-ventilated areas. Prevent formation of airborne dust.
Handle and use with due care for hazard related to electrostatic charge.
Do not drop containers or permit any physical impact leading to their damage or deformation.

STORAGE:

Do not leave under direct sunshine. Store indoors in cool, dry area.
Keep containers tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMIT VALUES:

OSHA : Particulates not otherwise regulated
 PEL/TWA(2007) 15mg/m³ (Total dust)
 5mg/m³ (Respirable fraction)
ACGIH: Particles not otherwise specified
 TLV/TWA(2007) 10mg/m³ (Inhalable)
 3mg/m³ (Respirable)

EXPOSURE CONTROLS

Occupational Exposure Controls

Engineering controls : Local ventilation equipped with dust trap may be required.

Personal Protection

Respiratory Protection: Wear a respirator with dust filter.

Hand Protection : Wear impervious gloves.

Eye Protection : Wear side-sealed protective glasses or goggles.

Skin Protection : Wear long sleeved clothes.

Environmental Exposure Controls

Use local ventilation equipped with dust trap to control airborne levels below the exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : White or light yellow powder
Odor : Faint, characteristic smell
Melting Point : None
Decomposition Temperature: Approx. 200 °C
Flash Point : Not Applicable
Autoignition Temperature : Not Applicable

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Flammability : Flame-resisting
Bulk Specific Gravity: 0.3 - 0.7
Solubility : Insoluble in water. Soluble in high polar solvent
such as tetrahydrofuran

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:

Avoid high temperature and direct sunshine.

STABILITY:

Stable at room temperature, however, may decompose if heated over.

MATERIALS TO AVOID:

Alkaline materials (for example; sodium hydroxide and ammonia)

HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS:

Thermal decomposition results in HCl gas generation.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Not Available
Eye Irritation: Not Available
Skin Irritation: Not Available
Sensitization: Not Available
Mutagenicity: None

12. ECOLOGICAL INFORMATION

Not Available

13. DISPOSAL CONSIDERATIONS

Comply with all federal, state and local regulations.
Do not dump this material into sewers, on the ground or into any body of water.

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14. TRANSPORT INFORMATION:

US DEPARTMENT OF TRANSPORTATION (DOT)

Hazardous Materials: Not Applicable

SEA TRANSPORT

IMDG : Not Applicable

AIR TRANSPORT

ICAO/IATA : Not Applicable

15. REGULATORY INFORMATION

OSHA STATUS: This product is hazardous under 29CFR1910.1200 .

TSCA STATUS: This component on TSCA INVENTORY

CERCLA REPORTABLE QUANTITY (40CFR117,302) : Not Applicable

SARA TITLE III

SECTION 302 (40 CFR 355) : Not Applicable

SECTION 311/312 (40 CFR 370) : Not Applicable

SECTION 313 (40 CFR 372) : Not Applicable

Please refer to any other federal, state and local regulations.

16. OTHER INFORMATION

For further information, please contact:

PVDC Coating Marketing & Sales Dept.

Performance Coating Materials Division

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