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
Address: 1-105 Kanda Jinbocho, Chiyoda-Ku, Tokyo 101-8101 Japan
Section: PVDC Coating Marketing & Sales Dept.
Performance Coating Materials Division
Telephone: +81-3-3296-3341    Fax: +81-3-3296-3462

EMERGENCY TELEPHONE NUMBER :
Marubeni Specialty Chemicals Inc.
Telephone: +1-914-428-6402

Asahi Kasei Chemicals Corporation
Telephone: +81-3-3296-3341   9am-6pm Japan Time M-F

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
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.

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.

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.
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
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.
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
Asahi Kasei Chemicals Corporation
Phone +81-3-3296-3341
Fax +81-3-3296-3462

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Asahi Kasei Chemicals Corporation. It relates only to the specific material designated herein, and does not relate to use in combination with any other material or in any process. Asahi Kasei Chemicals Corporation assumes no legal responsibility for use or reliance upon this information.