SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier
Product Name: PG620 (62GP), PG680 (68GP), PG740 (74GP),
PG770 (77GP), PS670 (67SF), PC750 (75HC),
PC680 (68HC), PS671, PS680, PF741, PF681,
SE102, SE201, PM990
Chemical Name: Ethene, Chloro-, Homopolymer
Synonyms: Polyvinyl chloride (PVC)

1.2 Relevant identified uses of the substance or mixture and uses advised against
Industrial raw material for plastics processing

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
TPC Paste Resin Co., Ltd.
16, I-1 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang, Rayong, 21150, Thailand
Telephone: +66 3892 5200 Fax: +66 3892 5299

General Information or complaint
Technical Service & Development Department
SCG Performance Chemicals Co., Ltd.
1 Siam Cement Road, Bangsue, Bangkok, 10800, Thailand
Telephone: +66 2586 1111 ext. 2 Fax: +66 2586.3676

1.4 Emergency telephone number:
Telephone: +66 3892 5200

SECTION 2: Hazards identification

HMIS® rating (product as packaged)
*HMIS is The Hazardous Materials Identification System
Health: 0 Fire: 1 Reactivity: 0

POTENTIAL HEALTH EFFECTS:

Inhalation
Inhalation of dust and vaporization of toxic vapor such as ammonia and residue vinyl chloride monomer (RVCM) may cause irritating to the respiratory tract and breathless. Prolonged inhalation exceeding threshold limit values (TLV) can lead to damaging effect as a result of mechanical overloading of the respiratory tract. RVCM will be decreased by time.
(Refer to Section 8 for Exposure Control Information)

Skin contact
Dust may cause irritation to the skin.

Eyes contact
Dust may cause irritation to the eyes.

Ingestion
Not an ordinary cause of exposure. This material is not hazardous under United States Occupational Safety and Health Administrative (OSHA) criteria and Workplace Hazardous Materials Information System (WHMIS) criteria.
SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS number</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-, homopolymer (PolyVinyl Chloride)</td>
<td>9002-86-2</td>
<td>100</td>
</tr>
</tbody>
</table>

SECTION 4: First Aid Measures

**Inhalation**

Remove a patient to fresh air immediately. If the product causes irritant or unwell breathe, a patient should use a bag-valve-mask or similar device to perform artificial respiration (rescue breathing). Get medical attention immediately.

**Skin contact**

Immediately flush skin with mild soap and large amounts of water until no chemicals remains, get medical attention.

**Eye contact**

Wash eyes immediately with large amount of water or optic eye lotion, occasionally lifting eyelids until no chemicals remains. Get medical attention if irritation remains.

**Ingestion**

No effect expected. If large amounts are ingested, get medical attention immediately.

SECTION 5: Firefighting Measures

**Extinguishing Media**

Dry chemical, carbon dioxide, water, foam

**Fire Fighting**

Keep unauthorized personnel away, isolate hazard area and deny entry, firefighting with upwind. Wear self-contained breathing apparatus (SCBA) and Personal Protective Equipment (PPE) for firefighters refers to Firefighter Boots, Firefighter Gloves, Firefighters helmets and Fire Resistant cloth.

**Hazardous Combustion Products:** Hydrogen chloride, Oxides of carbon
SECTION 6: Accidental Release Measures

Personal precautions
Evacuate unnecessary personnel and eliminate all sources of ignition.

Personal protection equipment
Wear personal protection equipment follow by section 8 (Exposure controls / personal protection)

Environmental precautions
Contain spilled chemicals with dike to prevent entry into sewers or waterways.

Method and equipment for cleaning up
Cleaning spilled Polyvinyl chloride with vacuum to minimize dust emission. Collect spilled materials in appropriate container and identify for disposal.

SECTION 7: Handling and Storage

Handling Procedure:
- Use only in adequate ventilation area and to minimize generation of dust emissions. Preventing accumulation of dust and eliminating potential ignition sources.
- Avoid breathing, contact to skin and eyes by wear personal protection equipment. Wash thorough after handling.
- At temperature higher than 100 deg. Celsius may cause thermal degradation of PVC and forming hydrogen chloride and oxides of carbon. Therefore, using materials at temperature higher than 100 deg. Celsius should also use heat stabilizer.
- Recommend to use the product within 1 year, start from manufacturing date on package, to prevent the coagulation and any changing.
- Additional information can be requested in case of use beyond recommended application, recycle material, or lack of knowledge on proper disposal.
- Recommend to use the operating temperature in controlled range to prevent the resin burn or vaporization of hydrochloric acid, carbon dioxide or other toxic substances. The operating temperature and controlled range depend on actual processing condition; machine type, raw materials, formulation, mold design, production speed, etc. Recommended to use as appropriate, regarding the factors above or contact SCG staff to request the additional information.

Sensitivity to static electricity:
- Electrostatic charges may occur. Grounding system is recommended for processing equipment.

Storage Condition:
- Store in a cool, dry area. Keep away from heat, sparks, flames and other ignition sources. Store in adequate ventilation area. For product arrangement and storage, please study PVC Paste Resin User Manual.
- Regularly clean the working area to prevent the accumulation of dust which can cause the fire and explosion.

SECTION 8: Exposure Controls/Personal Protection

Occupational Exposure Limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS number</th>
<th>United States OSHA Final PEL 8 hour TWA</th>
<th>China OELs</th>
<th>ACGIH:TLV (8 hour TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro ,homopolymer (PolyVinyl Chloride)</td>
<td>9002-86-2</td>
<td>15 mg/m³ (total dust) 5 mg/m³ (respirable dust)</td>
<td>5 mg/m³ (TWA) 10 mg/m³ (STEL)</td>
<td>10 mg/m³ (nuisance Dust) 1 mg/m³ (respirable dust)</td>
</tr>
</tbody>
</table>

OEL : Occupational Exposure Level;
TLV : Threshold Limit Values;
TWA : Time Weighted Average;
STEL : Short Term Exposure Level;
OSHA : United States Occupational Safety and Health Administration;
ACGIH : American Conference of Governmental Industrial Hygienists
Engineering controls:
General room ventilation plus local exhaust at points of emission to maintain levels of airborne contaminants below occupational exposure limits

Personal protection equipment:
Respiratory protection:
Wear respirator with high efficiency dust, mist, fume and vapor filters.

Eye protection:
Wear safety glasses or goggles to protect eyes.

Skin and body protection:
Wear suitable protective clothing to minimize skin contact.

Hand Protection:
Wear appropriate chemical resistant gloves.

Other:
Emergency shower and eyewash facility should be in workplace close proximity.

SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Fine powder, White solid</td>
</tr>
<tr>
<td>Change in appearance</td>
<td>Changes color on exposure to heat or light</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH in demineral water</td>
<td>4-7</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>736 deg.F or 391deg.C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not applicable (Product resists ignition and does not promote flame spread)</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.4</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition Coefficient (octanol/water)</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto ignition temperature</td>
<td>849 deg.F or 454 deg.C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt;100 deg.C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>((\text{C}_2\text{H}_3\text{Cl})_n)</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>0.25-0.40 g/cm³</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and Reactivity

Reactivity/Stability:

Stable under standard ambient temperature and pressure (SATP) as a temperature of 298.15 K (25 °C, 77 °F) and an absolute pressure of exactly 1 atm (101,325 Pa, 1.01325 bar).

Condition to avoid:

Avoid heat, flame, sparks and other sources of ignition.

Incompatibilities/ Materials to Avoid:

Oxidizing materials

Hazardous decomposition products:

Polyvinyl chloride in processing may result the release of very low levels of vinyl chloride, hydrogen chloride and oxides of carbon.

Hazardous Polymerization:

Not hazardous. Polyvinyl chloride is a stable polymer and will not further polymerize and/or re-polymerize to form vinyl chloride monomer.

SECTION 11: Toxicological Information

Animal Toxicity:

Rats and guinea pigs exposed continuously to PVC dust for 24 hours/day for periods varying from 2 – 7 months were found to have extensive lung damage. In rats, inhalation of fumes from heating process to PVC produced interstitial edema as well as focal bronchial and intra-alveolar hemorrhage. No data is available on the reproductive and mutagenicity effects.

Acute Toxicity:

PVC is practically non-toxic material by ingestion. This material is unlikely to cause skin irritation like other chemicals but physical irritation may occur. Eye irritation may occur from touching of lodged PVC particles. Existing level of Vinyl chloride is not likely to cause an acute biological effect when used in adequate ventilation areas.

Chronic Toxicity:

The available evidence from experimental animals indicates that PVC is not effecting the metabolism in mammals. Existing level of vinyl chloride is not likely to cause a chronic biological effect when used in adequate ventilation areas.

Carcinogenicity:

This product is not classified as a carcinogen by National Toxicology Program (NTP), International Agency for Research on Cancer (IARC) and Occupational Safety and Health Administration (OSHA)
SECTION 12: Ecological Information

Environmental Fate:

Aquatic: No data available
Biodegradation: PVC will not biodegrade.
Bioaccumulation: PVC will not bioaccumulate.

Additional Ecological Information: From the fact that PVC is a practically non-toxic to terrestrial organisms.

SECTION 13: Disposal Considerations

Waste Management Information:

Do not dump into any sewers, on the ground, or into any body of water. Any disposal of all waste and contaminate equipment and packaging should be in accordance with all applicable federal and local health and environmental laws and regulations.

SECTION 14: Transport information

UN number: No listed
Proper Shipping Name: Polyvinyl Chloride
Maritime Transport IMO/IMDG: Not regulated
Air Transport ICAO-TI and IATA-DGR: Not regulated
Land Transport ADR/RID: Not regulated

Inland Waterway Transportation ADN/ADNR: Not regulated

IMO: International Maritime Organization
IMDG: International Maritime Dangerous Goods Code
ICAO-TI: International Civil Aviation Organization - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IATA-DGR: International Air Transport Association - Dangerous Goods Regulations
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
ADN: Accord du transport Dangereux par voie Navigable
( European accord for the transport of dangerous good by inland waterways )
ADNR: Accord du transport Dangereux par voie Navigable pour Rhin
( European accord for the transport of dangerous good on inland waterways: Rhine )

SECTION 15: Regulatory information

Label:
This product is not subjected to classification according to Directive 67/548/EEC (Dangerous Substances Directive) by Council of the European Union.

International Regulation Status:

U.S. REGULATIONS:
CERCLA SECTIONS 102a / 103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Vinyl chloride: 1 LBS RQ
SARA TITLE II SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40CFR 355.30): Not Regulated
SARA TITLE II SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):

- Acute: no
- Chronic: Yes
- Fire: no
- Reactive: no
- Sudden release: no

SARA TITLE II SECTION 313 (40 CFR 372.65): Not Regulated


OTHER U.S. REGULATIONS: 29 CFR 1910.1017 (VINYL CHLORIDE)

International Inventory Status:

**Canada Chemical Inventory:**

<table>
<thead>
<tr>
<th>Component</th>
<th>DSL</th>
<th>NDSL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-, homopolymer (PolyVinyl Chloride)</td>
<td>Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**U.S. Chemical Inventory:**

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-, homopolymer (PolyVinyl Chloride)</td>
<td>Listed</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>Listed</td>
</tr>
</tbody>
</table>

**EU Chemical Inventory:**

<table>
<thead>
<tr>
<th>Component</th>
<th>EINECS</th>
<th>NLP</th>
<th>PBT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-, homopolymer (PolyVinyl Chloride)</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**China Chemical Inventory:**

<table>
<thead>
<tr>
<th>Component</th>
<th>IECSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-, homopolymer (PolyVinyl Chloride)</td>
<td>Listed</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>Listed</td>
</tr>
</tbody>
</table>
Taiwan Chemical Inventory:

<table>
<thead>
<tr>
<th>Component</th>
<th>NECI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-,homopolymer</td>
<td>Listed</td>
</tr>
<tr>
<td>(PolyVinyl Chloride)</td>
<td></td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>Listed</td>
</tr>
</tbody>
</table>

Philippines Chemical Inventory:

<table>
<thead>
<tr>
<th>Component</th>
<th>PICCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-,homopolymer</td>
<td>Listed</td>
</tr>
<tr>
<td>(PolyVinyl Chloride)</td>
<td></td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>Listed</td>
</tr>
</tbody>
</table>

Australia Chemical Inventory:

<table>
<thead>
<tr>
<th>Component</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-,homopolymer</td>
<td>Listed</td>
</tr>
<tr>
<td>(PolyVinyl Chloride)</td>
<td></td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>Listed</td>
</tr>
</tbody>
</table>

New Zealand Chemical Inventory:

<table>
<thead>
<tr>
<th>Component</th>
<th>NZIOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-,homopolymer</td>
<td>Listed</td>
</tr>
<tr>
<td>(PolyVinyl Chloride)</td>
<td></td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>Listed</td>
</tr>
</tbody>
</table>

STATE REGULATIONS:

**California proposition 65:** Known to the state of California to cause the following Vinyl Chloride Cancer

**(Feb. 27, 1987)**
SECTION 16: Other information

Prepared by: Technical Services & Development Department
SCG Performance Chemicals Co., Ltd.

For additional data or Product Complaint please contact:
Technical Service & Development Department (SCG Performance Chemicals Co., Ltd.)
Telephone: +66 2586 1111 ext. 2 Fax: +66 2586 3676

Abbreviation word:
CAS number: Chemical Abstracts Service Registry Number
IMO: International Maritime Organization
IMDG: International Maritime Dangerous Goods
ICAO-TI: International Civil Aviation Organization-Technical Instructions for the Safe Transport of Dangerous Goods by Air
IATA-DGR: IATA's Dangerous Goods Regulations
ADR/RID: ADR= Agreement on Dangerous Goods by Road / RID = Regulations concerning The Transport of Dangerous Goods by Rail
AND/ADNR: Inland waterways transport of dangerous goods
DSL / NDSL: Domestic/Non-Domestic Substances List
TSCA: Toxic Substances Control Act
EINECS: European Inventory of Existing Commercial Chemical Substances
NLP: No-longer Polymers
PBT: Persistent Bioaccumulative and toxic
IECSC: China Existing Chemical Inventory
NECI: National Existing Chemical Inventory in Taiwan
PICCS: Philippine Inventory of Chemicals and Chemical Substances
AICS: Australian Inventory of Chemical Substances
NZIOC: New Zealand Inventory of Chemicals

This Safety Datasheet is valid for all physical forms.

Disclaimer:

- The Applications specified herein is for reference only.
- It is customer’s responsibilities to inspect and test the product for suitability of the customer’s own use and purpose. The customer is responsible for appropriate, safe, legal use, processing and handling of the product.
- To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. We however do not assume any liability whatsoever for the accuracy and completeness of the information contained herein.
- We make no warranties which extend beyond the description herein. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose.
- No liability can be accepted in respect of the use of the product in conjunction with other materials. The information contained herein relates exclusively to the product when it is not used in conjunction with any third party’s materials.

End of Safety Data Sheet