SAFETY DATA SHEET
Emulsion PVC Homopolymer Resin – Polyvinyl Chloride (PVC)

1. IDENTIFICATION OF THE SUBSTANCE, PREPARATION, AND COMPANY UNDERTAKING

Product Name: EMULSION PVC HOMOPLYMER RESIN - POLYVINYLCHLORIDE (PVC)
Chemical Formula: (CH₂-CHCl)ₙ
CAS Number: 9002-86-2
Uses: Vinyl flooring, automotive parts and coatings, fabric coatings, and traffic cones.
Manufacturer: Mexichem Resinas Colombia S.A.S
Km 8 Vía Mamonal, Cartagena, Colombia
Tel: +57(5) 6723150
Web: www.mexichem.com.co
REACH Registration: Polymer exempt. See Section 15
Representatives: Mexichem UK Limited
The Heath Business & Technical Park
Runcorn Cheshire WA7 4QX
United Kingdom
Tel: +44(0) 1928 511192
Fax: +44(0) 1928 517592
E-mail: info@mexichem.com
Mexichem America Inc.
1835D Burnet Avenue 2nd floor
Union, NJ 07083
USA
Tel: +1 732 414-4350
Fax: +1 908 686-8481
Emergency Phones: UK: In an emergency, dial 999
For specialist advice in an emergency telephone: +44(0) 1928 572000
Colombia: +57 5 6723150 (Ext. 431/442) (24 hours)

2. HAZARDS OVERVIEW

Signal Word Warning

Potential Health Effects:
Inhalation: May cause irritation.
Skin contact: May cause mechanical irritation
Eye Contact: May cause mechanical irritation
Ingestion: To our knowledge, no effects are known
Chronic Effects: Chronic exposure to the respirable fraction (particles less than 10 microns in size) of PVC particles may produce pulmonary fibrosis. Particle sizes associated with emulsion polymerization are typically less than 1 micron in size. In general, the emulsion PVC homopolymer resins have an average particle size of 1 micron approximately. Dust may form an explosive atmosphere when dispersed in air.

Reference to other sections: 8 and 11
3. **COMPOSITION / INFORMATION OF INGREDIENTS**

<table>
<thead>
<tr>
<th>Component(s)</th>
<th>% (w/w)</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Hazard symbol(s)</th>
<th>Statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyvinylchloride (PVC)</td>
<td>&gt;96.5</td>
<td>9002-86-2</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Residual Emulsifiers</td>
<td>&lt;3.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Moisture</td>
<td>&lt;0.5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

PVC resins contain a very low amount of residual vinyl chloride monomer (CAS No. 75-01-4). The very low amount of residual VCM in emulsion vinyl resins does not suppose a hazard for human health or the environment during the polymer handling, storage, processing, use of final PVC goods and final disposal.

4. **FIRST AID MEASURES**

**Most important symptoms and effects, both acute and delayed:** Respiratory reaction may include coughing, pain, inflammation, bronchospasm. Skin or eyes affection will show redness.

**Description of first aid measures**

- **Inhalation:** Remove patient from exposure, keep warm and at rest. If irritation occurs, get medical attention.
- **Skin contact:** Wash skin with soap and water. If irritation occurs, get medical attention.
- **Eye contact:** Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. If irritation occurs, get medical attention.
- **Ingestion:** Do not induce vomiting. Wash out mouth with water. Obtain medical attention if ill effects occur.

**Further Medical Treatment:** Symptomatic treatment and supportive therapy as indicated.

5. **FIRE FIGHTING MEASURES**

- **General:** Combustible but not readily ignited under normal conditions. Slight fire hazard. Although unlikely, dust/air mixtures may pose a limited risk of explosion under certain conditions (see Section 7).
- **Extinguishing media:** Use appropriate extinguishing agents on surrounding fire. Water spray is recommended to cool or protect exposed materials or structures.
- **Hazardous Combustion Products:** Combustion or thermal decomposition will evolve toxic and irritant vapors to the respiratory tract, eyes and skin (hydrogen chloride, oxides of carbon, small amounts of benzene and aromatic and aliphatic hydrocarbons and phosgene). The more toxic by-product is carbon monoxide, which is an asphyxiating gas. Hydrogen chloride is irritant and its toxicity may not involve a fatal risk at the levels registered in fires. When vinyl is burned, hydrogen chloride will have a detectable, pungent odor, which will alert people on the fire occurrence. Depending on the severity of exposure, physiological response will be coughing, pain and inflammation. Individuals with bronchial asthma and other types of chronic obstructive respiratory diseases may develop bronchospasm if exposure is prolonged.
- **Advice for fire-fighters:** A self-contained breathing apparatus and full protective clothing should be worn in fire conditions. Keep unnecessary people away, isolate hazard area.
and deny entry. Move container from fire area if it can be done without risk. Wear NIOSH approved positive-pressure self-contained breathing apparatus (SCBA) operated in pressure demand mode. Cool extinguished material to prevent decomposition.

**Ignition Characteristics (ASTM D1929):**

Vinyl resin by itself will not support combustion because it requires a higher concentration of oxygen for burning than that present in the earth's atmosphere, but can be forced to burn by continuous application of intense heat. Do not expose vinyl resins to open flame and maintain a proper clearance when using portable heat devices or any source of heat. Store flammable liquids away from vinyl resin.

**Additional Properties:**

Auto ignition point 849°F/454°C (ASTM D1929) but with no self-sustained flame

**Sensitivity to mechanical Impact:**

Not sensitive.

**Sensitivity to Static Discharge:**

Electrostatic charges may build up during handling. Grounding of equipment is recommended.

**Flash point:**

736°F / 391°C

**Reference to other sections:**

8

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**

Do not breathe the powder. Eliminate all sources of ignition. Ensure suitable personal protection during removal of spillages. Protect against dust.

**Environmental precautions:**

Avoid release to the environment. Contain spillages. Keep product and flush water out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies

**Methods and materials for containment and cleaning up:**

Use vacuum equipment for collecting spilt materials, where practicable. Collect and transfer spilled material to a lidded container for reprocessing or disposal.

**Reference to other sections:**

8 and 13

### 7. HANDLING AND STORAGE

**Handling Procedures:**

Use methods to minimize generation of dust. PVC dust is capable of propagating a secondary dust explosion. This potential can be reduced by good housekeeping, prevention of dust from process equipment, preventing accumulation of dust on overhead, horizontal surfaces and eliminating potential ignition sources. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. PVC resin processing may result in the release of low levels of vinyl chloride. Use only in well-ventilated areas.

**Processing Hazards:**

During hot processing operations: avoid inhalation of vapours that may be
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No adverse health effects are expected from processing vinyl resin when potential exposures are minimized by good industrial hygiene practice and adequate ventilation. Nevertheless, at processing temperatures, the sum total of all ingredients in a vinyl-based compound (e.g., vinyl resin, stabilizer, lubricant, modifier, etc.) may emit fumes and vapors that are irritating to the respiratory tract and eyes of some sensitive people. This irritating effect depends upon processing techniques and temperatures, volume processed and, most importantly, the effectiveness of exhaust ventilation provided to the process area.

Conditions for safe storage, including any incompatibilities:
Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Store in a cool, and dry area. Store in a cool and dry well-ventilated area. Avoid heat, flames, sparks and other sources of ignition. Ground equipment needed.

Special Mixing and Handling Instructions:

Normal Melt Processing: Virtually all thermoplastic materials will emit fumes and/or vapors when heated to processing temperatures. The concentration and composition of these vapors will depend upon variables such as the specific compound formulation and processing method and temperature. Always use the product under well-ventilated conditions and avoid breathing of process vapors. For personal hygiene, wash thoroughly after handling resin, especially before eating, smoking or using toilet facilities. Do not store or consume food in processing areas. Do not use processing equipment to heat food.

Clean-up: Following normal-melt processing should be performed under well-ventilated conditions. Compound based upon vinyl resin may be held at process temperatures for a short time without significant thermal degradation. However, it should be recognized that exposure to either elevated temperature or excessive heat history (time) will result in decomposition. Equipment should not be shut down for extended time periods with the product in it, or decomposition and possible corrosion of unprotected metal may result. If dies and screws are not to be cleaned manually, then compound should be purged from processing equipment prior to shutdown using special vinyl purge compound.

Time and temperature required to initiate degradation will vary depending upon processing technique, degree of compound stabilization and other factors. As a general rule, degradation begins to occur after about one hour at 177°C (350°F), about ten minutes at 204°C (400°F) and within five minutes at 232°C (450°F).

In case of power loss, shut off the machine and dismantle the die assembly as soon as possible before degradation or decomposition begins (which may be evidenced by gassing and "popping" sounds). Before the die can be disassembled, dangerously high pressure may occur in the die system. In this event, shut off the machine, clear the area of personnel and wait until decomposition stops. Thoroughly ventilate area. Remove and disassemble the die system. These are guidelines only. Refer to technical service reports and equipment manufacturer’s recommendations for specific procedures.

Regrinding scrap normally generates substantial heat. Cool regrind before placing it in containers. The excellent insulating quality of vinyl will prevent heat in the center of a container from escaping, potentially resulting in slow thermal decomposition of the material. This may not only render the product unsatisfactory for further processing but also result in fumes and vapors being released into the workplace atmosphere.
Remove vinyl resin from walkways and floors to prevent slippery footing.

Sprinklered warehouse areas are typically recommended. Although vinyl resin by itself will not support combustion, materials such as wooden pallets, cardboard boxes and other combustibles can provide sufficient fuel to cause vinyl to burn.

Compounding vinyl resin: many of the common compounding ingredients which are mixed with vinyl resin may require special handling, especially respiratory protection. It is the user's responsibility to obtain and follow the recommended precautions from the individual additive supplier.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls:
Provide adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Local exhaust ventilation is preferred because it is capable of controlling contaminant emissions at the source and preventing dispersion into the general work area. For additional information on ventilation, refer to ACGIH text, Industrial Ventilation, a Manual of Recommended Practices.

Personal protection equipment:
Wear suitable protective clothing, gloves and eye/face protection. Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely.

Respirators
A suitable dust mask or dust respirator with filter type P may be appropriate. Check with protective equipment manufacturer’s data.

Eye Protection
Wear protective eyewear (goggles, face shield, or safety glasses).

Gloves
Wear suitable gloves.

Additional Information for the U.S:

Eye Protection: Wear ANSI approved safety glasses with side shields and/or an appropriated full-face shield. All eye protection should be selected and worn in accordance with the OSHA eye and face protection guidelines outlined in 29 CFR 1910.132 and 1910.133.

Skin and Body Protection: Minimize contact with product. Wear gloves and/or suitable long-sleeved clothing. All PPE should be selected and worn in accordance with 29 CFR 1910.132 and 1910.138.

Respiratory Protection: A NIOSH approved respirator with N95 cartridges (US) or CEN (EU) may be permissible under certain circumstances where airborne concentrations of dust are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. A respiratory protection program that meets 29 CFR 1910.132 and 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

Require Work/Hygiene Procedure: Wash hands thoroughly after handling. Do not eat, drink or smoke in work area. Dusty clothing and shoes should be thoroughly cleaned before reuse. If unusual exposures are expected, an industrial hygiene review of work practices, engineering controls and personal protective equipment is recommended.
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Occupational Exposure Limits

For the U.S.:

OSHA Regulatory Exposure Limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS N°</th>
<th>OSHA Final PEL TWA</th>
<th>OSHA Final PEL STEL</th>
<th>OSHA Final PEL Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro, homopolymer (Polyvinyl Chloride) listed as particulate Not Otherwise Classified (PNOC)</td>
<td>9002-86-2</td>
<td>15 mg/m³ total dust; 5 mg/m³ respirable fraction.</td>
<td>-----</td>
<td>-----</td>
</tr>
</tbody>
</table>

Non-Regulatory Exposure Limits:
The Non-Regulatory OSHA limits shown in the table are the vacated 1989 PEL’s (vacated by 58 FR 35338, June 30, 1993)

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS N°</th>
<th>ACGIH TWA</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-, homopolymer (Polyvinyl Chloride)</td>
<td>9002-86-2</td>
<td>1 mg/m³ respirable particulate matter</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

For Europe:

<table>
<thead>
<tr>
<th>Occupational Exposure Limits</th>
<th>CAS No.</th>
<th>LTE 8h TWA ppm</th>
<th>LTE 8h TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyvinyl Chloride (Total Inhalable)</td>
<td>9002-86-2</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>WEL</td>
</tr>
<tr>
<td>Polyvinyl Chloride (Respirable dust)</td>
<td>9002-86-2</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>WEL</td>
</tr>
</tbody>
</table>

Additional Advice: The fabrication processes for the final product may involve coating, calendering and molding. To assess the health hazards associated with exposure to compounded PVC dusts, it may be necessary to have information on the ingredients used in the compounding of the resin.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Powder, granular

Colour: White

Odour: Not data available

Molecular Formula: (C2H3Cl)n

Boling Point/Range: Not applicable

Melting Point/Range: Not data available

Vapour Pressure: Not applicable

Vapour Density (air=1): Not applicable

Specific Gravity: 1.4 approximately, at 20°C (once compounded and fused)

Density: 1.4 g/cm³

Inherent Viscosity: 0.66 - 1.122 (ASTM D1243)

Solubility (water): Insoluble

Solubility (other): Soluble in cyclohexanone, tetrahydrofuran, 1,2-Dichloroethane

pH: Not applicable

Volutility: Not applicable

Evaporation Rate (ether=1): Not applicable
Partition Coefficient (n-octanol/water): Not applicable
Particle Size, microns: PVC emulsion homopolymer resin 0.8 – 1.0
Explosive Properties: Dust is weakly flammable and has no self-sustained flame. PVC is not classified as a dust explosive.

10. STABILITY AND REACTIVITY

Chemical stability: Stable under recommended storage conditions.
Conditions to avoid: Avoid heat, flames, sparks and other sources of ignition.
Hazardous decomposition products: Not expected to occur. Thermal decomposition will evolve toxic and irritant vapours. Under flame exposure: Hydrochloric acid, carbon oxides, small amounts of benzene and aromatic and aliphatic hydrocarbons and Phosgene.
Hazardous Polymerization: PVC is a stable polymer and will not further polymerize. This material will not depolymerize to form VCM.
Incompatibility (materials to avoid): PVC is resistant to acids and alkalis up to 60°C, with the exception of sulphuric acid (>90%) and nitric acid (>50%). However, above this temperature the polymer is attacked by stronger acids. Avoid contact with strong oxidizers. Also, avoid contact with acetal or acetal copolymers and with amine containing materials during processing. At processing conditions these materials are mutually destructive and involve rapid degradation. Thoroughly purge and mechanically clean processing equipment to avoid even trace quantities of these materials from coming in contact with each other. Prevent cross contamination of feedstock.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Low acute toxicity. This material is practically non-toxic by the oral route. This material is unlikely to cause chemical skin irritation. Mechanical irritation may occur. Eye irritation may occur from the mechanical action of lodged particles.
Chronic toxicity: The available evidence from experimental animals and from humans indicates that pure PVC is not metabolized in mammals. Several studies have described pulmonary fibrosis from inhalation of high levels of PVC particles.
Carcinogenicity: This material is not classified as a carcinogen by NTP, IARC or OSHA.

12. ECOLOGICAL INFORMATION

Aquatic toxicity: Not harmful to aquatic organisms.
Mobility in soil: The product has no mobility in soil
Bio-accumulative potential: The product has no potential for bioaccumulation.
Persistence and degradation: Solid with low volatility. The product is essentially insoluble in water. The product shows no evidence for biodegradability in water. The product shows no evidence for biodegradability in soil.
13. DISPOSAL CONSIDERATIONS

Regulatory information: Reuse or reprocess, if possible. Dispose in accordance with all applicable regulations. May be subject to disposal regulations: U.S. EPA 40 CFR 261. Hazardous Waste Number(s): D043. If incinerated, be aware that hydrogen chloride is generated.

Waste treatment methods: Reuse, reprocess or recycle if possible. If incinerated, be aware that hydrogen chloride is generated.

14. TRANSPORT INFORMATION

Not classified as hazardous material for transportation in the EU. It has not been regulated by the U.S. Department of Transportation (DOT), IMGD, United Nations, IATA or the Canadian Transportation of Dangerous Goods (TDG) regulations

U.S. DOT 49 CFR 172.101 Status: Not regulated

15. REGULATORY INFORMATION

U.N. Global Harmonized System (GHS) - Classification & Labelling Information:
Classification:
- Eye Irritation 2B
- Skin Irritation 2
- Specific Target Organ Toxicity (STOT)
  - Single Exposure 3
Signal Word: WARNING
H Statements:
- H320: Causes eye irritation.
- H315: Causes skin irritation.
- H335: May cause respiratory irritation.
P Statements:
- P307+313: If exposed, get medical attention.
- 305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P281: Use personal protective equipment as required.
- P264: Wash thoroughly after handling.
- P273: Avoid release into the environment.

NFPA 704 Information (Hazard Identification Rating (SCALE 0-4)):
- Health Rating: 1
- Flammability Rating: 1
- Reactivity Rating: 0
- Other Hazards: Not applicable
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U.S. Federal Regulatory Information:
EPA Clean Air Act: Not listed
EPA Clean Water Act: Not listed
TSCA: The ingredients of this product are listed on TSCA inventory (40 CFR 710).
RCRA: This product does not meet the EPA criteria for ignitability, corrosivity or reactivity.
The toxicity characteristic has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).
CERCLA Sections 102a/103 (40 CFR 302.4): Not listed
SARA Title III Section 302 (40 CFR 355.30): None
SARA Title III Section 304 (40 CFR 355.40): Not regulated
SARA Title III Section 311/312 Hazardous Categories (40 CFR 370.21): None
SARA Title III Section 313 (40 CFR 372.65): Not listed
Container Labeling: Containers of PVC resin shall be labeled with the following statement as required by 29 CFR 1910.1017:
POLYVINYL CHLORIDE – CONTAINS VINYL CHLORIDE. VINYL CHLORIDE IS A CANCER-SUSPECT AGENT.

U.S. State Regulatory Information:
Texas Effects Screening Level: Short-term 50 µg/m³; Long-term 5 µg/m³ (PVC)
California: Proposition 65: Not Listed. Warning – this product contains a chemical known to the State of California to cause cancer (Vinyl Chloride).
New Jersey: Not Listed. NJ Worker & Community RTK Act (NJSA 34:5A1 et seq.) (Vinyl Chloride)
Pennsylvania: Not Listed. PA Worker & Community RTK Act (PA. Act 1984-1159) (Vinyl Chloride)

European Union Dangerous Substances/Preparations Directive Information:
Risk Phrases: R36/37/38: Irritating to eyes, respiratory system and skin
Hazard Pictogram: Xi: Irritant
Safety Phrases: S24/25: Avoid any inhalation, contact with skin and eyes.
S36/37: Wear suitable protective clothing and gloves.
S61: Avoid release to the environment.
ESIS: Not regulated
EINECS: Listed
European Union Compliance: This data sheet was prepared in accordance with Regulation (EC) No. 1907/2006 (REACH). The product has been classified in accordance to 67/548/EEC, 1999/45/EC, 1272/2008 (CLP) and its amendments.
The vinyl chloride monomer used as raw material for PVC production has been registered in the EU under REACH by Mexichem UK Limited, which acts as the Only Representative for both manufacturers.

Chemical Safety Assessment (CSA)
A Chemical Safety Assessment (CSA) has not been carried out for this substance.
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Canadian Regulatory Information:
WHMIS Category: Class D, Division 2, Subdivision B
Ingredient Disclosure List (IDL): Not Listed
Domestic Substances List (DSL): Listed
CPR: Not regulated
CEPA Schedule I – Toxic Substance list: Not Listed
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Other Regulatory Information:
Australia (AICS): Listed
China (IECSC): Listed
Japan (ENCS): Listed
Korea (KECI): Listed
New Zealand (NZIoC): Listed
Philippines (PICCS): Listed
Taiwan (ECN): Listed

Additional Information/Reference:
Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labelling, material safety data sheets, training and access to written records. We request that you and it is your legal duty to, make all information in this Material Safety Data Sheet available to your employees.

OSHA SPECIFICALLY REGULATED SUBSTANCES:
OSHA 29 CFR 1910.1017 (Vinyl chloride); The U.S. Department of Labor, Occupational Safety and Health Administration specifically regulates manufacturing, handling and processing of Polyvinyl Chloride. Such regulations have been published at 29 CFR 1910.1017. It is necessary that handlers and processors of polyvinyl chloride be familiar with these regulations. Polyvinyl Chloride may contain low levels of vinyl chloride. Vinyl Chloride Monomer is a known carcinogenic agent.

16. OTHER INFORMATION

Health : 1
Flammability : 1
Reactivity : 0

HAZARDOUS SUBSTANCES:
None of the following materials designated as toxic and hazardous by the U.S. Department of Labor (OSHA) are used to manufacture Mexichem Resinas Colombia S.A.S. vinyl resins nor are they anticipated by-products in our production process:
1001  Asbestos
1002  Coal tar pitch volatiles
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1003 4-nitrobiphenyl
1004 Alpha-naphthylamine
1006 Methyl chloromethyl ether
1007 3,3'-dichlorobenzidine (and its salts)
1008 Bis-chloromethyl ether
1009 Beta-naphthylamine
1010 Benzidine
1011 4-aminodiphenyl
1012 Ethyleneimine
1013 Beta-propiolactone
1014 2-acetylamino-fluorene
1015 4-dimethylaminoazobenzene
1016 N-nitrosodimethylamine
1018 Inorganic arsenic
1029 Coke oven emissions
1043 Cotton dust
1044 1.2-dibromo-3-chloropropane
1045 Acrylonitrile
1047 Ethylene oxide

No lead, mercury, other heavy metals or heavy metal compounds and no polychlorinated biphenyls (PCB) or polybrominated biphenyls (PBB) are used to manufacture Mexichem Resinas Colombia S.A.S. vinyl resins. These materials are ubiquitous and trace quantities may be found in the environment.

IMPORTANT:
As the conditions or methods of use are beyond our control, Mexichem Resinas Colombia S.A.S. does not assume any responsibility and expressly disclaim any liability for any use of this material.

This data sheet was prepared in accordance with Regulation (EC) No. 1907/2006.

Information in this publication is believed to be accurate and is given in good faith, but it is for the user to satisfy itself of the suitability for its own particular purpose. Accordingly, Mexichem gives no warranty as to the fitness of the product for any particular purpose, and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that such exclusion is prevented by law. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, storage, disposal and other factors that may involve other or additional legal, environmental, safety or performance considerations, and Mexichem Resinas Colombia S.A.S. assumes no liability whatsoever for the use of or reliance upon this information. While our technical personnel will be happy to respond to questions, safe handling and use of the product remains the responsibility of the customer. Freedom under patent, copyright and designs cannot be assumed. Mexichem Cloro-Vinilo™ is a trademark, property of Mexichem SAB de C.V.

GLOSSARY

ACGIH: American Conference of Governmental Industrial Hygienists
AICS: Australian Inventory of Chemical Substances
C: Ceiling Limit.
C<sub>50</sub>: Concentration of air resulting in death to 50% of experimental animals.
CAS No.: Chemical Abstracts System Number
CEILING: Ceiling Limit (not to be exceeded any time)
CEL: Corporate Exposure Limit.
DOT: Department of Transportation.
DSL: Domestic Substance List.
EC No.: European Commission Number
EC50: Effective concentration that inhibits the endpoint to 50% of control population.
EINECS: European Inventory of Existing Commercial Chemical Substances
ECN: National Existing Chemical Inventory in Taiwan
ENCs: Existing and New Chemical Substances Inventory in Japan
EPA: US Environmental Protection Agency.
ESIS: European Chemical Substances Information System.
IARC: International Agency for Research on Cancer.
IATA: International Air Transport Association.
IECSC: Chemical Inventory of Existing Chemical Substances in China
KECI: Korea Existing Chemicals Inventory
LD50: Administered dose resulting in death to 50% of experimental animals.
LEL: Lower Explosive Limit.
LTEL: Long Term Exposure Limit
MSHA: Mine Safety and Health Administration.
NIOSH: National Institute for Occupational Safety and Health.
NTP: National Toxicology Program.
NZIoC: New Zealand Inventory of Chemicals
OSHA: Occupational Safety and Health Administration.
PEL: Permissible Exposure Limit (OSHA)
PCCS: Philippines Inventory of Chemicals and Chemical Substances.
PPE: Personal Protective Equipment.
SARA: Superfund Amendments and Reauthorization Act.
STEL: Short Term Exposure Limit (15 minutes)
TDG: Transportation of Dangerous Goods (Canada).
TLV: The Company aims to control exposure in its workplace to the ACGIH limit
TLV-C: The Company aims to control exposure in its workplace to the ACGIH Ceiling limit
TSCA: Toxic Substance Control Act.
TWA: Time Weighted Average (8 hours)
UEL: Upper Explosive Limit.
USEPA: United States Environmental Protection Agency
WEL: Workplace Exposure Limit (UK HSE EH40)
WHMIS: Worker Hazardous Materials Information System (Canada).