



LAMEC

Material Safety Data Sheet

Geon® 8700X Natural 0220 (Edge Cap)
 Product No.: 8700X 00A 0220
 Recipe No.: 009
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 Written by: M. Hross

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Chemical Family: Alloy
 Chemical Name/Synonyms: Poly (vinyl chloride), PVC, vinyl
 Trade mark: Geon® Vinyl
 Formula: Vinyl Resin* plus functional additives *(CH₂CHCl)_N
 C.A.S. Registry No.: Not Applicable (Mixture)
 TSCA Inventory Status: All ingredients comply with the USEPA's TSCA regulations
 Canadian Domestic Substances List Status: All ingredients have been nominated or are eligible for inclusion
 Workplace Hazardous Materials Information System (WHMIS) Classification: D2B
 Product Use: Various Applications

Section II – Hazardous Ingredients

Hazard Summary Statement: CAUTION! Processing fumes may cause irritation of the eyes and respiratory tract. Use with adequate ventilation. Avoid breathing process emissions. Read entire Material Safety Data Sheet (MSDS).

<u>Material</u>	<u>C.A.S Number</u>	<u>Amount in Product</u>	<u>ACGIH TLV-TWA</u>	<u>OSHA PEL-TWA</u>
Calcium Carbonate ²⁴	1317-65-3	5 – 10%	10 mg / m ³ (Total dust)	15 mg / m ³ (Total dust)
Calcium Carbonate LD ₅₀ – N.E. Calcium Carbonate LC ₅₀ – N.E.				
Calcium Stearate	1592-23-0	<5%	10 mg/m ³ (As stearates)	N.E.

Calcium Stearate LD₅₀ – N.E.
Calcium Stearate LC₅₀ – N.E.

Vinyl Chloride Monomer ^{1, 2, 3, 4, 5, 6}	75-01-4	<8.5 ppm	5ppm	1 ppm (5ppm TWA for any 15 minute period)
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Vinyl Chloride Monomer LD₅₀ (rat inhalation) – 18 pph/15M
Vinyl Chloride Monomer LC₅₀ – N.E.

N.A. – Not Applicable

N.E. – Not Established

Vinyl chloride monomer is shown as an OSHA cancer suspect agent (29 CFR 1910.1017), an American Conference of Governmental Industrial Hygienists (ACGIH) confirmed human carcinogen, and a National Toxicology Program (NTP) and an International Agency for Research on Cancer (IARC) human carcinogen.

Legislative Footnotes

- 1 Ingredient listed on SARA Section 313 List of Toxic Chemicals
- 2 Ingredient listed on the Pennsylvania Hazardous Substances List
- 3 Ingredient listed on the California listing of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity
- 4 Ingredient listed on the Massachusetts Substance List
- 5 Workplace Hazardous Materials Information System ingredient found on the Ingredient Disclosure List – Canada
- 6 Ingredient listed on the New Jersey Right to Know Hazardous Substance List

Notes: TLV – TWA -- Threshold Limit Value – Time Weighted Average for concentration of the chemical substance in the ambient workplace air. American Conference of Governmental Industrial Hygienists (ACGIH).

OSHA PEL – OSHA Permissible Exposure Limit, 8 – hour TWA. 29 CFR 110.1000 1989.

SECTION III – Physical Data

Appearance: Natural Cubes
Odor: Slight Characteristic
Percent Volatiles: N.E.
Solubility in Water: N.E.
Physical State: Solid

Specific Gravity: 1.38 ± 0.02
Melting Point: N.E.
Glass Transition Temperature: N.E.
Bulk Density: N.E.

SECTION IV – Fire and Explosion Hazard Data

Flash Point: Not established for the product; the vinyl resin portion of the product has a flash-ignition temperature of approximately 391°C (735°F) and a self-ignition temperature of approximately 454°C (850°F). ASTM D-1929.

Notes: Flash-Ignition Temperature -- The lowest initial temperature of air passing around the specimen at which sufficient combustible gas is evolved to be ignited by a small external pilot flame.

Self- Ignition Temperature -- The lowest initial temperature of air passing around the specimen at which, in absence of an ignition source, ignition occurs of itself, as indicated by an explosion, flame or sustained glow.

Extinguishing Media: Water, ABC dry chemical, protein type air foams. (Carbon dioxide may be ineffective on larger fires due to lack of cooling capacity, which may result in reignition.)

Special Firefighting Procedures: Wear self-contained breathing apparatus (SCBA) in positive pressure mode. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source. In enclosed or poorly ventilated areas, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations.

Unusual Fire and Explosion Hazards: None known.

SECTION V – Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products: Hydrogen chloride, carbon monoxide, carbon dioxide and small amounts of benzene and aromatic and aliphatic hydrocarbons.

CAUTION: Prolonged heating (approximately 30 minutes or more) of the product above 200°C (392°F) or short term heating at 250°(482°F) may result in rapid evolution of hydrogen chloride.

Incompatibility (Materials to Avoid): 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 feedstocks.

SECTION VI – Health Hazard Data

Threshold Limit Value: Not Established

Primary Routes of Exposure: Inhalation of process emissions

Effects of Overexposure: No adverse health effects are anticipated from the product at ambient temperatures. However, at process temperatures, the product can emit fumes and vapors, which may cause irritation of the eyes and respiratory tract. Any effects will depend upon processing technique and temperature, volume processed and the effectiveness of exhaust ventilation provided for the process. Effects of chronic exposure to off-gases at processing temperatures have not been fully evaluated.

Hazardous ingredient specific medical data (if ingredient found in "pure" form):

Calcium carbonate is an eye and skin irritant. High levels of dust may be irritating to the nose and throat.

Calcium stearate may cause irritation of the eyes and respiratory tract.

Vinyl chloride monomer in high concentrations can cause eye, nose, and throat irritation, dizziness, euphoria, drowsiness, incoordination, nausea, headache, blurred vision, disorientation, persistent irregular heart beat, unconsciousness and death. Direct contact with the liquid causes freeze burns of the skin, eyes and mucous membranes with possible permanent damage. Repeated exposure causes angiosarcoma of the liver, a rare form of liver cancer. Repeated exposure to high concentrations can cause degeneration of the tips of the finger bones. Transplacental carcinogenicity has been observed in some long-term studies with animals. Other organ system effects also have been observed in animal studies but have not been confirmed in humans. Vinyl chloride is an OSHA cancer suspect agent (29 CFR 1910.1017), an ACGIH confirmed human carcinogen and an NTP and IARC human carcinogen.

Emergency and First Aid Procedures:

Inhalation (of process emissions): Remove affected individual to fresh air. Contact a physician.

Eye Contact: Flush eyes with water for at least 15 minutes while lifting upper and lower eyelids. Seek medical attention if irritation persists.

Skin Contact: Not an anticipated hazard, however, good personal hygiene practices are always recommended

for material handling.

Ingestion: Not an anticipated hazard.

SECTION VII – Spill and Leak Procedure

Steps to be taken in case material is released or spilled: Vacuum or sweep material into clean, properly labeled container for reuse or disposal.

Waste disposal method: Dispose of waste in accordance with all federal, state/provincial and local regulations.

TCLP: This product or others of similar composition, in the as-shipped condition, have been tested and found to be not hazardous using the USEPA's Toxicity Characteristic Leaching Procedure (TCLP – 40 CFR 261, Appendix II). Any physical or chemical modification of this product may change the TCLP test results. ⚡

SECTION VIII – Special Protection Information

Ventilation: Effective exhaust ventilation should always be provided to draw fumes or vapors away from workers to prevent routine inhalation. Ventilation should be adequate to maintain the ambient workplace atmosphere below the legislated levels listed in Section II. Hot melt processing (e.g., extruding and molding), cutting or sawing, machining, regrinding, thermoforming, heat welding and other processing or post-processing operations involving heat sufficient to result in polymer breakdown should be examined to insure adequate ventilation.

Respiratory Protection: Wear a NIOSH/MSHA – approved respirator specific for chemicals listed in Section II and VI, as applicable, when concentrations exceed those limits listed. Comply with OSHA 1910.134 (29 CFR).

Protective Equipment: Wear protective gloves when handling hot material during processing. Safety glasses are recommended for all industrial activities.

SECTION IX – Special Precautions

Material Handling: As with any product, should dusting occur from material handling, sources of ignition, such as static discharge, should be addressed by the user to prevent the ignition and sudden release of energy from suspended, finely divided particulates. Remove product from walkways and floors to prevent slipping hazards.

Normal Melt Processing: Virtually all thermoplastic materials will emit fumes and / or vapors when heated to processing temperatures. The concentration of these emissions in the workplace air will depend upon variables such as the specific compound formulation, amount processed, processing method and temperature and the effectiveness of exhaust ventilation. Always use Geon® vinyl compound under well-ventilated conditions and avoid continued or prolonged breathing of processes vapors. For personal hygiene, wash thoroughly after processing compound, 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.

Cleanup: Cleanup following normal melt processing should be performed under well-ventilated conditions. Geon® vinyl compound may be held at process temperatures for a short time without significant thermal degradation. However, it should be recognized that either exposure to elevated temperature or excessive heat history (time) will result in decomposition. The time and temperature required to initiate degradation will vary depending upon processing technique, degree of compound stabilization and other factors. As a general rule-of-thumb, degradation begins to occur after about one hour at 177°C (350°F), about 10 minutes at 204°C (400°F) and within five minutes at 232°C (450°F). Equipment should not be shut down for extended periods with compound in it, or decomposition and possible corrosion of unprotected metal may result. If dies and screws are not to be cleaned manually, then purge equipment before shutdown using special vinyl purge compound or a compatible thermoplastic such as general purpose ABS (do not use flame-retarded or halogen-containing grades for this purpose).

Processing Fume Condensates: Processing fume condensates, which may include toxic contaminants, may be combustible and should be periodically removed from exhaust hoods, ductwork and other surfaces. Protective clothing, including impervious gloves, should be worn during cleanup operations to prevent skin contact.

Storage: Sprinklered warehouse areas are recommended. The product by itself will not support combustion, however, materials such as wooden pallets, paper bags, cardboard boxes, and other combustibles can provide sufficient fuel to cause the product to burn.

Material Not Used Within One Year: Material not used within one year should be tested to determine if degradation has occurred.

Abnormal Conditions: Abnormal conditions such as equipment malfunction or using improper equipment or procedures, or hang-up or stagnation of material during processing may cause decomposition. Employees involved in removing decomposing material should be provided suitable air-supplied respirators and other appropriate protection.

Housekeeping: Remove any dust generated as a result of material handling from areas such as rafters, roofs, building columns and ductwork to eliminate any secondary potential dust explosion or fire hazards.

SECTION X –Hazard Codes

NFPA 704 (1980)
(National Fire Protection Association)

Health:	2
Flammability:	1
Reactivity:	0
Special:	

HMS
(Hazardous Materials Identification System –
National Paint and Coatings Association)

Health:	0
Flammability:	1
Reactivity:	0
Personal Protection:	B

Key: 0 = Insignificant
1 = Slight
2 = Moderate
3 = High
4 = Extreme
B = Gloves

User's Responsibility

This bulletin cannot cover all possible situations, which the user may experience during processing. Each aspect of the user's operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained within this bulletin should be provided to the user's employees or customers. We must rely upon the user to utilize this information to develop appropriate work practice guidelines and employee instructional programs for his or her operation. Test all end uses thoroughly to assure appropriate material selection.

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